Professional and Practice-based Learning

Dianne Forbes
Richard Walker *Editors*

Developing Online Teaching in Higher Education

Global Perspectives on Continuing Professional Learning and Development

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Professional and Practice-based Learning

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Professional and practice-based learning brings together international research on the individual development of professionals and the organisation of professional life and educational experiences. It complements the Springer journal *Vocations and Learning: Studies in vocational and professional education*.

Professional learning and the practice-based processes that often support it are the subject of increased interest and attention in the fields of educational, psychological, sociological, and business management research, and also by governments, employer organisations and unions. This professional learning goes beyond what is often termed professional education, as it includes learning processes and experiences outside of educational institutions in both the initial and ongoing learning for the professional practice. Changes in these workplaces requirements usually manifest themselves in the everyday work tasks, professional development provisions in educational institution decrease in their salience, and learning and development during professional activities increase in their salience.

There are a range of scientific challenges and important focuses within the field of professional learning. These include:

- understanding and making explicit the complex and massive knowledge that is required for professional practice and identifying ways in which this knowledge can best be initially learnt and developed further throughout professional life.
- analytical explications of those processes that support learning at an individual and an organisational level.
- understanding how learning experiences and educational processes might best be aligned or integrated to support professional learning.

The series integrates research from different disciplines: education, sociology, psychology, amongst others. The series is comprehensive in scope as it not only focuses on professional learning of teachers and those in schools, colleges and universities, but all professional development within organisations.

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Dianne Forbes • Richard Walker
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To the teachers and students who made the rapid transition to online learning during the pandemic, and to those who lead in this space.

Series Editors' Foreword

A key goal of the Professional and Practice-based Learning book series is to contribute to discussions about and processes for improving the enactment of occupational capacities through practice-based learning experiences for both the initial learning of those capacities and their ongoing development. A related goal is associated with understanding and enhancing the contributions that different kinds of experiences can make to the formation and continuity of those occupational practices and from different conceptual and methodological orientations. To date, the volumes in this series have contributed a range of perspectives, approaches and outcomes to these discussions. This volume continues that tradition through its focus on how educators in higher education had to readily transfer their mode of teaching to online provisions as social distancing became a healthcare imperative during the pandemic.

The contributions to this edited volume reference the kinds of changes that were required and almost instantaneously to transfer teaching that primarily had been enacted through face-to-face interactions to online formats. Many of the contributors refer to the challenges they encountered. Part of the challenge was a lack of models from which to base their practice. Most university teachers had observed models of face-to-face teaching through their schooling and tertiary educational experience. However, few had been involved or encountered models of the mode of teaching they were now required to enact. It is these kinds of challenges and the responses to them, the support provided, and learning derived from those experiences which are contained through the individual and collective contributions of this volume.

There is freshness in the content, urgency represented in the titles and a search for helpful professional development practices and strategies for effective online teaching in the contents of the chapters. The editors have attempted to bring these emergent ideas, practices and educational solutions into an explanatory framework which provides a basis for how other educators might respond to the challenges they are facing with online teaching. However, it would be wrong to view the contents here as being merely a response to an emergency. Instead, it is likely that changes to how teaching is considered, planned and enacted will be transformed by the

experiences of the pandemic era. Not only has this era required that teachers consider what constitutes teaching and how that might best occur but students have also become more familiar with, competent and engaging with and utilising electronic-mediated processes to engage with others, including their teachers. So, whilst nascent and fresh, contributions here likely set down some foundations for how teaching within higher education, and perhaps across tertiary education and then maybe into schooling, might progress from here on in.

In some ways, the genie is out of the bottle in terms of needing to attend face-to-face lecture, which is primarily about the transmission of propositional knowledge, and other media for sharing of that knowledge have become available and are more able to be used flexibly, expeditiously and strategically by students. So, there is a shift from transmission to engagement and interaction of a kind and quality that has never been possible within the classroom context. Perhaps this is what should always have been the case rather than the didactics approaches that have comprised the orthodoxy of higher education teaching, even though its limitations have been well rehearsed. Now, freed up from rationales for and requirements to attending face-to-face, new models and modes of teaching have become a new orthodoxy. It is to this emerging orthodoxy that this volume makes its contributions, albeit in diverse ways.

In these ways, the volume makes a significant contribution to the field of professional practice-based learning and addresses an important gap both conceptually and procedurally about the ways in which higher education experiences can be provided to achieve learning and developmental outcomes that go beyond what would be permissible, could be achievable and possibly engage with by learners, in so doing.

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Dianne Forbes is a senior lecturer in teacher education and digital learning at the University of Waikato, New Zealand. She has two decades of experience as an online teacher. She is a recipient of several awards for tertiary teaching and e-learning excellence, and has published research internationally on online teaching and learning. Dianne has led and contributed to various initiatives in support of continuing professional learning and development for academic staff who are teaching online, including mentoring, peer review, seminars and the promotion of professional learning networks.

Richard Walker is Head of Programme Design and Learning Technology at the University of York, United Kingdom. He has over 20 years' experience supporting learning technology developments within the higher education sector, leading on staff development activities for the effective use of learning technologies in programme design and delivery. Richard has published on instructional design frameworks for blended learning in a variety of journals, as well as approaches to the institutional adoption of learning technologies. Richard has also been an active member of the UK Universities and Colleges Information Systems Association (UCISA)'s Digital Education Group.

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Introduction: A Continuous Professional Learning and Development (CPLD) Framework for Online Teaching

Richard Walker and Dianne Forbes

Abstract One of the key outcomes of the Covid-19 pandemic has been to move fully online teaching from a niche activity to the mainstream within higher education. This has required a radical rethinking of how higher education institutions support their faculty to develop their online teaching practice. In this introductory chapter, we discuss the reasons why continuing professional learning and development (CPLD) has never been more important in helping instructors who are new to online teaching to develop the requisite competencies and strategies to work effectively in this domain, as well as to support experienced teachers in refreshing and extending their online teaching practice. We acknowledge that there is no universally accepted approach to CPLD for online teaching and that diverse approaches are needed to address wide-ranging development requirements, such as staff capabilities, pedagogies and course design needs related to associated disciplinary and institutional practices. We present a CPLD model to capture these diverse sources of support, which forms the organising framework for this book. This model provides an overview of the different sources of learning development that are available to online instructors – both within and outside the teaching institution – and how they are interrelated and interconnected as part of a wider ecology of CPLD support to staff. We explain how these different sources of support may be combined to support personalised learning development pathways in online teaching practice.

This book presents a collection of cultural and organisational perspectives from around the world on how higher education instructors have been supported to teach effectively online. We issued an open call for expressions of interest in writing

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chapters on this theme in May 2020 via our professional networks and national learning technology associations, encouraging contributions from university, college and polytechnic staff engaged in the development of online teaching practice. We purposely did not target contributions from particular countries and hoped for a diverse range of national and organisational perspectives. Expressions of interest were received from authors in June 2020, with the drafting of chapters taking place between March and September 2021 and final changes made by May 2022 in response to feedback from the reviewers of this book.

This has resulted in an edited volume of 14 chapter contributions by authors from nine different countries situated within Asia, North America, South Asia, Pacific and Western Europe, reflecting on their approaches to online teaching development. Each chapter addresses the central question of the book, namely, what continuing professional learning and development (CPLD) opportunities do higher education instructors require to help them to develop their online teaching practice.

The use of the term CPLD is intentional, as it represents an inclusive label to describe training and development opportunities for online teachers. It combines the continuing professional development (CPD) term favoured in the United Kingdom with the professional learning development (PLD) focus which is more commonly referenced in New Zealand. CPLD captures the need for the sustained development and learning of all professionals engaged in online teaching, from novices to experienced professionals. CPLD as a term therefore reflects an ongoing development process, which is adaptable to a range of contexts for individuals at different stages of their online teaching careers. CPLD is also inclusive in terms of the development themes that it covers, addressing pedagogy and instructional design approaches, as well as the technical knowledge and digital skills that have been the traditional focus of development activities for online teachers.

In this introductory chapter, we will discuss why CPLD has never been more important for online instructors working within higher education and will provide an overview of the different sources of learning development that are available to them – both within and outside the teaching institution – and how they are interrelated and interconnected as part of a wider ecology of CPLD support to staff. We present a CPLD model to capture these diverse sources of support, which forms the organising framework for this book.

1 Covid-19 and the Mainstreaming of Online Teaching Provision

This book was conceived as a project at a time when international education was severely disrupted by the Covid-19 emergency (Marginson, 2020). In this context, higher education institutions around the world were challenged to move away from traditional face-to-face delivery and rapidly develop alternative flexible teaching and pastoral support services during the emergency remote teaching phase of 2020–2021. These circumstances required a radical rethinking about alternative and equitable learning, teaching and assessment opportunities for learners (Walker,

2021) – particularly for those students remotely located from the university campus (Rapanta et al., 2020).

One of the key outcomes of the pandemic has been to move fully online teaching from a niche activity to the mainstream within higher education, with institutions rapidly scaling up their fully online learning provision to students (Misirli & Ergulec, 2021). This has had a knock-on impact on teaching practice, with online teaching skills now required for all staff, rather than just for a minority of specialist online instructors. For classroom teachers who lack the first-hand experience of studying and teaching online, the shock of this rapid adjustment can be profound (Bennett & Marsh, 2002). As Donnelly and O'Rourke (2007) have observed, the challenges of managing an online environment go way beyond technical considerations to encompass social and pedagogical responsibilities and require confidence-building through the adoption of revised teaching strategies. McWilliam (2005) has described this process as involving the unlearning of those campus-based teaching practices with physically present students, with staff encouraged instead to draw on the affordances of technology to do things differently for online learners.

The pandemic has therefore accelerated changes in teaching practice that were arguably already underway over the past decade with the rapid growth of online learning (Leary et al., 2020) and has challenged conceptions about what effective online teaching with technology should look like. In this context, the case for universal CPLD is urgent – helping faculty who are new to online teaching to develop the requisite competencies and strategies to work effectively in this domain, as well as to support experienced teachers in refreshing and extending their online teaching practice.

2 The Distinctive Challenges of Online Teaching

The transition to online teaching has commonly been presented as one requiring a mastery of digital tools and their effective application in teaching encounters with students (Tschida et al., 2016). This implies a level of technical proficiency but underplays the importance of the considered application of technological pedagogical content knowledge (Koehler et al., 2013) to help inform the design and organisation of learning environments for students (Chikasanda et al., 2013). Teacher development in this respect is crucial, as the replication of campus-based teaching methods is unlikely to lead to an enhanced or effective learning experience (Salmon, 2011). Online learners require different sources of support and infrastructure to physically present students, as well as contrasting methods to help them engage with individual and collaborative study tasks. The social dimension of online learning is a key consideration in engagement strategies, touching on how teachers encourage students to project themselves socially and affectively within a learning community (Rourke et al., 1999). A reconceptualisation of teaching methods is therefore needed to determine what works and why (Baran & Correia, 2014), and this, in turn, may influence the approaches to teaching that are used (Trigwell et al., 1994; Trigwell & Prosser, 1996).

The rethinking of teaching methods will have implications for an instructor's pedagogical role within an online environment (Coppola et al., 2001; Redmond, 2011), the skills and competencies that they will need, and the teaching persona that they will adopt in this new environment. The transition to online teaching will also touch on student-centred design, determining the activities that students will engage in to drive their learning, incorporating opportunities for social interactions and peer-led learning. It will undoubtedly require learning management and facilitation skills, with teacher presence reflected in synchronous encounters with students (e.g. through video conferencing) as well as asynchronous feedback and discussion activities.

3 CPLD for Online Teaching

Given the complex needs that we have discussed, it comes as no surprise to note that there is no universally accepted approach to CPLD for online teaching. One size does not fit all. Diverse approaches are needed to address wide-ranging development requirements, such as staff capabilities, pedagogies and course design needs related to associated disciplinary and institutional practices.

Development requirements may be associated with a range of factors, not least the level of experience that an individual has acquired in online teaching. In this respect, CPLD interventions have been traditionally designed around a deficit training model, supporting staff with no prior experience of teaching or learning online to make the transition to virtual teaching – getting them up to a level of basic competence. In this book, we contend that CPLD should be relevant to staff across the full career spectrum, from novice to experienced online practitioners. This means offering support beyond the initial transition from classroom to online teaching, challenging staff conceptions about instructional design, delivery approaches and student engagement modes with online learning activities and assessment. Effective CPLD should therefore continue to confront individual conceptions of teaching practice with the reality of online teaching, provoking changes in conceptual thinking (Ho, 2000) as part of an ongoing reflective process.

We explore how CPLD provision can address these multiple needs and how different sources of support can be effectively combined to provide a coherent development experience for staff. This is not always straightforward, given the obstacles that may exist in institutions. A common organisational challenge that has been noted in the literature is the technological-pedagogical division of support within institutions (Donnelly & O'Rourke, 2007). This may manifest itself in a number of ways, such as when IT trainers lead workshops on the digital tool-set without reference to online teaching strategies. Other academic development units may be deemed responsible for guiding staff on the teaching side of working online. Such a fragmented approach to CPLD provision can hinder the development of online educators, where explicit links between pedagogical considerations and the selection and use of the underpinning technology are not made in training and support interventions.

3.1 A Multidimensional, Multi-level Model of CPLD

As a corrective to this fragmented support picture, we present a multidimensional, multi-level model for CPLD, which is the organising structure for the chapters in this book. This builds on Baran and Correia's (2014) professional development framework for online teaching, which focuses on three key levels of the organisation, community and teaching. We develop this further to demonstrate the interconnected nature of CPLD both within and outside the institution. Our *CPLD Ecological Support Model for Online Teaching* (Fig. 1) addresses the myriad opportunities for reflection on teaching practice using technology, available at inter-institutional, institutional level, programme (teams-based) levels and through individual reflection and change, available to professionals across the full career spectrum from novices to experienced practitioners. Our model recognises the porous boundaries

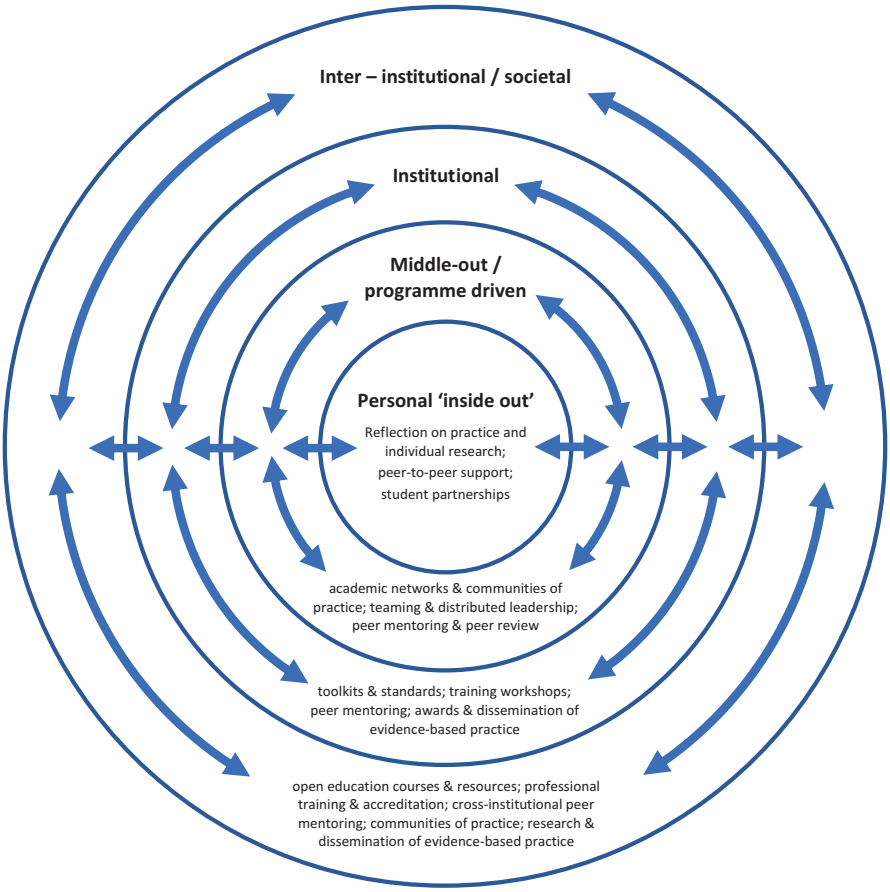

Fig. 1 CPLD ecological support model for online teaching

between development initiatives at all of these different levels, with learning and development insights being exchanged in multiple ways: from 'outside-in', drawing on societal and inter-institutional activities to inform individual professional development, to 'inside-out', reflecting on personal practice and research, sharing lessons learned within and beyond the institution to a wider peer community. These CPLD dimensions are described as follows.

3.1.1 Inter-institutional/Societal CPLD

This 'external' dimension captures the sources of CPLD support that engage individuals across organisational, national and cultural boundaries. Open educational initiatives represent one such medium for cross-boundary CPLD and communities of practice to emerge and are the focus of four chapters in this volume. Farrell et al.'s chapter (Professional Learning for Open Online Educators: The #Openteach Story) on #Openteach describes how a professional development programme for open online educators project was launched, sharing evidenced-based practice on design for online teaching within the Irish tertiary sector. Experiencing online learning from a student perspective, the open course provided teachers with empathetic insights into the student experience of online learning through authentic and structured activity. As a feature of the #Openteach approach, Farrell et al. point to the scope for community building and sharing across an academic community.

This is a theme also addressed by Dell et al. and Kennedy et al. in their respective accounts of MOOC courses. They highlight the scope of open education courses to model and promote social and collaborative learning through technology, extending beyond their institutions to engage a global community of educators. Both chapters reflect on the scope of MOOCs to offer participants the opportunity to learn both from the course designers and from each other, in courses that support peer dialogue and knowledge building. Keeping with the open education theme, DeWaard and Chavhan reflect on CPLD developments from the perspective of cross-cultural collaboration between professionals situated in Canada and India. This is realised through a UNESCO peer mentoring framework, bringing together professionals from different cultural and organisational contexts to work together and explore fresh perspectives on teaching practice as part of an open education initiative.

International professional accreditation schemes represent another form of cross-boundary support for online educators. Cochrane and Jenkins discuss the merits of the Certified Membership of the Association for Learning Technology (CMALT) accreditation programme from their combined UK and Australian perspectives. They explore how CMALT maps digital skills to learning outcomes, encouraging educators to engage in reflective practice supported through active collaboration within a learning community, with a requirement to maintain and update a living portfolio of digital practice.

3.1.2 Institutional CPLD

The institutional dimension represents a top-down perspective of CPLD provision from within an organisation, looking at the staff training, dissemination and mentoring schemes that are provided to equip staff with the skills, inspiration and technical support to move their teaching online and develop it further.

May and Denton describe an institutional framework for professional development in New Zealand, delivered through the Analysis, Design, Development, Implementation, and Evaluation (ADDIE) model of guided curriculum (re)development. This represents an adaptation of the original ADDIE framework (Branch, 2009) to support staff with the ongoing review of learning design approaches during crisis situations, ensuring that staff have the pedagogical understanding to teach effectively online.

Houston et al. reflect on the design of an institutional toolkit for online delivery within their UK institution, drawing on an alternative ABC curriculum design framework, which was originally developed by University College London's Digital Education team to drive online learning design (Young & Perovic, 2018). Through this approach, they describe how instructional design has been presented as an essential part of academic practice at Glasgow Caledonian University, with the ABC framework offering a way of modelling best practice by effectively blending a range of different learning types and digital tools.

Ngai et al. explore the interrelationship between programme level (departmental) and top-down staff development initiatives in supporting the transition to emergency remote teaching in Hong Kong. This has been supported in their institution through an institutional adaptation of the 'Technology Pedagogical Content Knowledge' (TPACK) framework (Koehler et al., 2013) and informed by a needs-based assessment of staff online teaching requirements, but enhanced at the departmental level by attention to personal and attitudinal barriers that staff face in supporting students and managing expectations about the online learning experience.

3.1.3 Middle-Out Programme-Driven CPLD

This dimension acknowledges the collective enterprise of identifying and promoting development according to the needs of the teaching programme, with initiatives developed within programme teams and then being shared more widely with colleagues across the institution.

Vallis et al. highlight the value of social and dialogical interactions at the programme level as a driver for change in reconceptualising approaches to online learning. They report on the different interdisciplinary perspectives that have informed a co-design instructional process, providing opportunities for professional learning. Academics as 'connected learners' is a theme also explored by Zeivots et al. in their chapter (Share Sessions: A Solution to Cross-Disciplinary Academic Professional Learning and Development In Higher Education) on 'Share Sessions', focusing on informal conversations between members of different disciplines within an

Australian business school, which discussed innovative online teaching practices. They describe how these sessions have fostered cross-disciplinary learning – highlighting the value of academic networks and communities of practice. Harper and Holme also discuss the role of professional learning communities as networks or communities of practice. In their chapter (Informal, Grassroots Online Professional Learning: The Experiences of Teacher Educators), they present a framework for collaboration and critical engagement, which was designed to challenge established campus-based conceptions of teaching practice, as well as to support Scottish school teachers in their transition to online course delivery.

Roloff Rothman et al. focus on the role of distributed leadership and teaming at the programme level as a way of driving staff development. They describe how this approach can achieve staff buy-in and engagement, which, in turn, provides the momentum for changes in instructional practice. Recognising that leadership can be spread across multiple leaders, structures and situations, they describe how their peer-led sessions at a Japanese university have been effective in increasing a base level of expert knowledge, with trainees passing that knowledge on to others within programme teams across the institution.

3.1.4 Personal 'Inside-Out' Experiences of CPLD

This personal dimension addresses the individual initiatives that drive continuous professional development and learning, such as reflection on practice and self-managed learning activities to inform enhancements to online teaching activities.

Philip, in her chapter (Pathways to Creative Learning and Teaching Online: An Ecological Model), focuses on the challenge of learning to teach creatively online – highlighting the importance of active self-organised CPLD delivered through micro-level engagements, through peer-to-peer led CPLD activities, risk-taking and research, which she distils into seven CPLD principles to drive creativity. These self-organised activities are presented as an effective alternative to 'passive attendance at standardised CPLD sessions' and part of a wider ecological model for developing creative teaching online.

Drawing on their own personal development journey, Lafferty and Roberts describe the lived experience of their transition to online teaching within their UK university, navigating the different layers of CPLD networking and sources of support during the emergency remote teaching phase. In their chapter (From Physical to Virtual: Reflections on the Move from the Lecture Hall to the Digital Classroom), they highlight their shifting identity from classroom to online teachers and also the changing identities of the students they were supporting as part of this lived experience. They reflect on the requirements for CPLD provision to be effective, addressing well-being and the ability of academics to assess and reflect on their own needs, as well as to support creative teaching practice.

4 Summary

The key message from all of the contributions to this book is that CPLD support for online instructors is multi-faceted – drawing on formal and informal learning opportunities from within the teaching institution and beyond that are accessed flexibly by higher education practitioners. There is no 'one way' of offering support that can meet the needs of every instructor and no definitive CPLD programme that can address the full range of development priorities. Individual requirements will vary over time and in response to evolving teaching contexts and practices. Consequently, it is the responsibility of instructors to actively manage their own learning development over the course of their career. By drawing on the different levels of support available both within and outside their institution, individuals can drive their own personalised learning development in online teaching practice, moving beyond digital skills proficiency to the development of a holistic understanding of learner needs and suitable course delivery strategies to suit their teaching context. Furthermore, by sharing practice they can also influence the professional development and learning of their peers. The chapters present different approaches to achieving these twin aims, offering a range of ideas and tools that may support professional development at both ends of the online teaching spectrum, from novices to experienced practitioners.

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Part I
Inter-institutional/Societal CPLD

Professional Learning for Open Online Educators: The #Openteach Story

Orna Farrell, James Brunton, Catriona Ní Shé, and Eamon Costello

Abstract This chapter explores the experiences of the #Openteach project team in developing a flexible and evidence-based approach to support professional learning for those who teach online. It offers advice and guidance, derived from our analysis of the scholarly literature, talking with our students (teachers) and based on our own reflections upon our work in the project with hundreds of learners who were eager to teach in more engaging and successful ways online. The project had several phases, including a needs analysis of effective online teaching, the publication of a review of the literature, and a pilot evaluation report. The #Openteach course ran in March 2020 and focused on five key aspects of teaching online: social presence, facilitating discussion, collaboration online, live online teaching, and supporting online students. Data were generated via online focus groups and online questionnaires. Our findings suggest that walking in the shoes of the online learner has a powerful impact on teachers and allows them to bring empathic approaches to bear in their professional practice. We conclude with consideration of whether a larger scale adoption of the open, flexible, and online approach to professional learning can better support access to CPLD for all educators.

1 Introduction

This chapter tells the story of the #Openteach: Professional Development for Open Online Educators project, which was funded by the National Forum for the Enhancement of Teaching and Learning in Higher Education in Ireland from 2019

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to 2020 and was based in Dublin City University (DCU). The aim of the project was to create an evidence-based and open CPLD approach to support educators to teach online.

Teaching online is different. Teaching online requires different pedagogical approaches to traditional lecturing; therefore, institutions need to support teachers transitioning into online teaching to ensure quality (Gurley, 2018). Effective online teaching supports student engagement and success; this is key as online students are more vulnerable to attrition (Coker, 2018; Woodley & Simpson, 2014).

The #Openteach project was conceived prior to the Covid-19 pandemic to meet a locally identified need for CPLD for our DCU cohort of adjunct online educators. At the time, online education was a niche but growing area in Ireland. The Covid-19 pandemic changed this context radically, shifting online from the periphery to the mainstream. The pandemic has impacted 1.5 billion students worldwide and precipitated a move to emergency remote learning (Bozkart et al., 2020). Since March 2020 in Ireland, higher and further education has largely been delivered online to 233,973 students without prior experience of online learning (Bozkart et al., 2020). Additionally, the pandemic has thrust 17,521 higher education staff into teaching online, the majority without previous experience of this mode of education (Bozkart et al., 2020). The chaos of the pandemic changed the path of the #Openteach project. The course suddenly became a support not just for our staff but for educators from across Irish and international higher education institutions.

In this chapter, we will tell the story of the design, development, and implementation of the #Openteach project. In the next section, contemporary perspectives on professional learning for online educators are discussed.

2 Contemporary Perspectives on CPLD for Online Educators

In this section, contemporary perspectives on best practices for supporting the CPLD of online educators are discussed. Such perspectives suggest that support should focus on online pedagogy and the roles and competencies necessary to be an effective online educator. In addition, the literature indicates the importance of institutional support, time and flexibility, and technological readiness when designing CPLD for online educators.

The quality of online learning is firmly linked to the professional development and support received by educators for teaching in the online environment (Adnan, 2018; Englund et al., 2017). Educators who move from traditional teaching to the online environment often bring their traditional pedagogies with them, which may not be as effective in the online environment; they need professional development on using online pedagogies that are more tailored for that specific teaching mode (Bezuidenhout, 2018).

Bawane & Spector (2009) proposed that professional development opportunities should be focused on the competencies required for the most important roles of the online educator. Kilgour et al. (2018) carried out a multiphase research study in the United States and Australia that identified a number of threshold concepts experienced by novice online educators relating to three themes: (1) preparation and course design, (2) online presence, and (3) interactions and relationships. Reporting from the same study, Northcote et al. (2015) developed a set of recommendations for the implementation of effective professional development. Recommendations were to (1) place pedagogy above technology, (2) cater for diverse levels of development, (3) allow teachers to take the lead, and (4) recognise emotional issues.

There is a move in higher education staff development towards 'just-in-time' professional development (Northcote et al., 2015). Educators have identified that the shift to online teaching can appear overwhelming and that implementing one small change at a time will benefit them (Sword, 2012). Canadian online educators noted that professional development that can be enacted immediately and that fits in with their schedules works best (Adnan, 2018). Similarly, Baran and Correia (2014) reported that studies show that educators require professional development that fits in with their schedules, and that can be used within a current course.

Educators, in a large multi-campus university in the United States, identified a lack of time and fixed schedules as a challenge to the uptake of online teaching as they were unable to attend professional development. These educators recommended that such professional development be given locally at a college level (Kibaru, 2018). Bezuidenhout (2018) referred to the lack of time as the 'silent barrier' and suggests that educators and their institutions have to manage time efficiently. Institutions need to be able to provide short flexible sessions, at times and places that suit educators (Baran & Correia, 2014).

Educators with training and experience in online teaching identified the following institutional infrastructure issues: "enrolment systems, technical support, professional development needs, workload and time issues, and role clarification among administrative and academic staff" as having a bearing on their ability to engage in professional development (Northcote et al., 2015, p. 328). It is clear from the literature that institutional support for all aspects of online teaching is critical to its success (Adnan, 2018; Baran & Correia, 2014; Northcote et al., 2015; Walters et al., 2017). Walters et al. (2017) found that one of the most important factors for online educators was the reliability of the technology. Despite the fact that the College of Education in a mid-west US campus provides good faculty support, the online educators expressed a need for "improved technological, … administrative support … to overcome issues arising from: …, limitations of course management systems, acquisition and maintenance of newer innovative technologies for teaching and learning" (Kibaru, 2018, p. 184). Overall, institutions have a responsibility to provide their online educators with both professional development and ongoing support (Vaill & Testori, 2012).

Baran and Correia (2014) highlighted that a lack of technology skills can impact an educator's ability to engage with aspects of online teaching such as those relating to student engagement. They suggest that technology support is required,

particularly when they are transitioning from face-to-face to online teaching. Educators with experience in using technology 'due to past experiences' have little or no difficulty in creating digital artefacts (Adnan, 2018). This was also reflected in the use of the VLE during a training programme, with those unfamiliar with Moodle taking some time to get to grips with the technology (Adnan et al., 2017). Reporting on an evaluation of an Online Teaching Initiative (OTI) course in a university in the United States, Borup and Evmenova (2019) found that those educators who weren't 'ready' with the technological skills had a deep learning curve and may not have benefited from the exposure to new tools as much as educators who had prior experience in that regard.

3 #Openteach Approach to CPLD for Online Educators

Based on the analysis of the literature above, we have identified a set of interlinked factors that should be considered in order to enact effective CPLD for online educators. The #Openteach approach to professional learning for online educators focuses on four principles:

1. CPLD is tailored for online educators; both novice and experienced educators, in particular those without prior knowledge of online pedagogy.
2. Is authentic, evidence-based, and structured but allows for flexible participation.
3. Focuses on effective situated delivery, i.e., situated in the online context.
4. Supports community building and integration into the institutional academic community (Ní Shé et al., 2019; Fig. 1).

Fig. 1 #Openteach approach to professional learning for online educators

4 Methodology

This study adopts a mixed-methods case study approach, that of a single intrinsic case study focusing on the CPLD experiences of online educators (Creswell, 2014). Using multiple sources of qualitative and quantitative data, this approach facilitated a rich narrative of the professional learning needs and experiences of online educators in the #Openteach course (Stake, 1999). This case study draws on a variety of qualitative and quantitative data collected over the course of the project from the needs analysis, design process, and pilot evaluation study; see Table 1.

Ethical approval for the study was granted by the Dublin City University Research Ethics Committee (REC Approval number: DCUREC/2019/072). Participants gave informed consent, confidentiality was adhered to, and the data were anonymised.

The quantitative data were analysed using a combination of Qualtrics and Microsoft Excel. The qualitative data were analysed using a data-led approach following Braun and Clarke's (2006) six phases of thematic analysis, which involved a number of cycles of coding, generating candidate themes, reviewing and refining themes, and assessing themes for internal homogeneity and external heterogeneity. During the analysis, the qualitative questionnaire dataset and focus group dataset were combined and analysed thematically using Nvivo 12. These themes are reported in the findings section below.

4.1 Case Study Context

The #Openteach project team are based in the Open Education Unit (OEU) at Dublin City University (DCU). Formally known as the National Distance Education Centre and subsequently Oscail, the OEU is a provider of online, off-campus

Table 1 #Openteach data sources

Data source	Phase	Sample
Online educator survey	Needs analysis	55 online educators
Online educator focus groups	Needs analysis	3 focus groups, 15 online educators overall
#Openteach participant evaluation survey	Evaluation	101 responses
#Openteach participant focus groups	Evaluation	3 focus groups, 10 participants overall

programmes through the DCU Connected platform since 1982. Throughout the years, the mode of delivery moved gradually from that of a traditional distance education provider to incorporate more elements of online learning (Farrell & Seery, 2019). Following an open and online learning philosophy, the OEU aims to afford educational opportunities to students who have not managed to access more traditional entry routes into higher education.

The OEU teaching team is comprised of 100 adjunct faculty that are geographically dispersed around Ireland and teach through the DCU Connected platform, coordinated by Open Education. The #Openteach project aimed to provide flexible online professional learning opportunities to this cohort of online educators, thus addressing an important gap that exists in the provision of professional development for part-time and online teachers who rarely have the opportunity to avail of campus-based resources and have limited access to professional development (Beaton & Gilbert, 2012; Hitch et al., 2018).

5 The #Openteach Story

The #Openteach project was developed to generate new knowledge about effective online teaching practice and to harness this new knowledge to support the CPLD of open online educators. The #Openteach project had four phases; see Fig. 2.

The principle of openness was at the heart of the #Openteach project. All of the resources and intellectual outputs were Creative Commons licensed and openly shared through social media and the project website. The #Openteach online course was free, and participation was open to anyone, from anywhere, with the capability to join an online course. The sustainability of project outputs was facilitated by ensuring that the Moodle-based, open course files are available to anyone who would like a copy of the course. This and an open textbook version of the course are available from the project website www.openteach.ie.

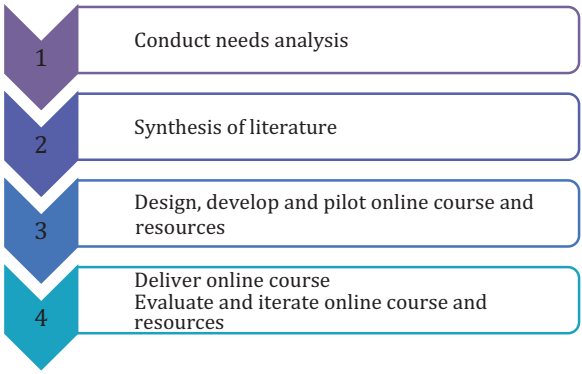

Fig. 2 #Openteach project phases

5.1 Phase 1: Needs Analysis

In phase 1, we conducted a needs analysis of the target population – online educators based in the Open Education Unit – and produced a report with our findings (Farrell et al., 2019). Data were generated through online, semi-structured focus groups with online educators conducted in real-time online using a private Adobe Connect online room. A focus group interview schedule was created that contained questions about teaching online, student support, and professional development needs. Three focus groups for online educators were conducted with a total of 15 participants. Concurrently, an anonymous online survey was administered. It included open-ended and five-point Likert-style scale questions about the features of effective online teaching and professional development needs and experiences. A total of 55 online educators participated in the online survey.

In the data, online educators identified five areas that they would like to develop further through professional learning:

1. Technical skills for teaching online.
2. Online learning and teaching pedagogy.
3. Online facilitation skills/approaches.
4. Encouraging online interaction.
5. Community of online educators: both being part of a community of educators and how to foster a class community in their online teaching practice.

In addition, the needs analysis study identified a number of key findings in relation to educators' perceptions of effective online teaching:

- Educators placed the highest value on the interpersonal professional skills or soft skills for the online educator. These interpersonal skills encompass being caring, approachable, supportive, responsive, friendly, and building rapport. The findings of this study indicate that effective online educators employ these interpersonal skills to foster a supportive online learning environment.
- The importance of clear communication in the online environment for effective online teaching was emphasised by educators. This was described as involving active listening, clarity, regular contact, and delivery of consistent and accurate information using unambiguous language. Establishing clear norms and expectations for communication approaches and appropriate online conduct was perceived as key elements of effective online teaching.
- Educators identified the building of a cohesive online class community as being crucial to online student engagement and necessary to counteract the feelings of isolation often experienced by online students. Facilitating the creation of a class community through active online engagement in discussion forums, synchronous online tutorials, and through informal peer support groups was identified by educators as an important feature of effective online teaching.

5.2 *Phase 2: Synthesis of the Literature*

In phase 2, a report containing a synthesis of the literature entitled *Teaching Online is Different: Critical Perspectives from the Literature* was produced; see Fig. 3 (Ní Shé et al., 2019). The report details a synthesis of the literature about online teaching since 2010 and examines the roles and competencies that characterise effective teaching online, as well as approaches to supporting the professional development of online educators. The previous literature section draws on this report.

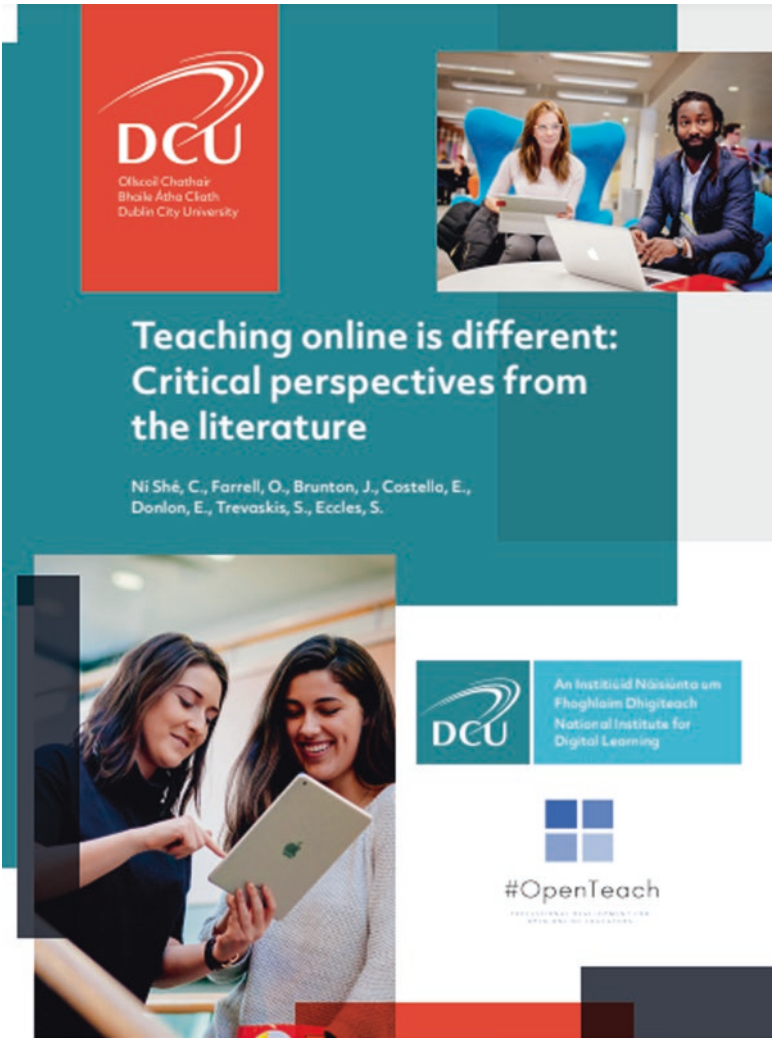

Fig. 3 "Teaching online is different" report

5.3 Phase 3: Course Design and Development

In phase 3, the needs analysis and literature synthesis reports were used to guide the design and development of the #Openteach open, online course. The course was designed following the ABC Learning design approach, which is an effective and structured approach for designing online and blended courses. The ABC approach is based on activity-based learning and is structured around designing a course that facilitates six learning types based on Diana Laurillard's conversational framework: acquisition, inquiry, practice, production, discussion, and collaboration (Young & Petrovic, 2016; Laurillard, 2012). You can read more about the design process in our ABC case-study. This design process resulted in a 10 h, fully online CPLD course, which was discipline agnostic (Ní Shé et al., 2019).

The course focused on the following topics identified through the needs analysis and literature synthesis: social presence, facilitating discussion, collaboration online, live online Teaching, and supporting online students. The learning outcomes for the #Openteach course are outlined in Table 2.

The #Openteach course followed a scenario-based approach, and participant engagement was largely asynchronous and self-paced as this provided the flexible approach recommended in the literature. The course was designed and delivered on the DCU Moodle site called Loop and used a variety of tools such as H5P, video, audio, discussion forums, quiz, and workshop in its design (see Fig. 4).

Table 2 #Openteach course learning outcomes

Number	Learning Outcome
1	Demonstrate awareness of teaching and learning pedagogy associated with online learning
2	Facilitate online communication and discussion forums that engage students in learning
3	Create a supportive community of learners using online teaching pedagogy
4	Develop and facilitate online collaborative activities that support student learning
5	Design online teaching activities that encourage student participation and learning and reflect on personal learning from this activity
6	Use digital tools effectively to support online teaching

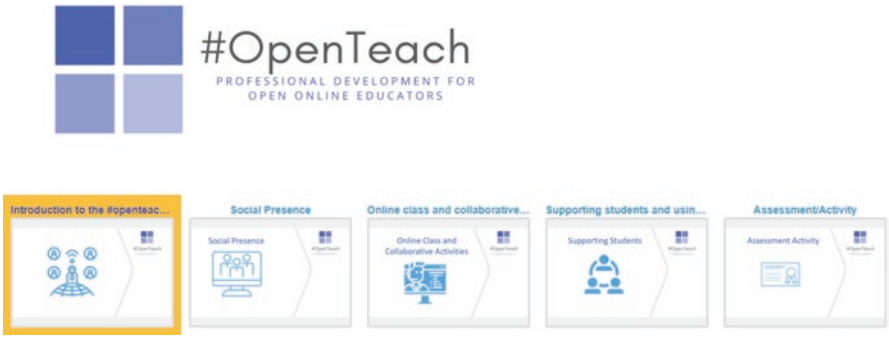

Fig. 4 #Openteach course design

5.4 Phase 4 Course Pilot

The #Openteach open course ran in March 2020 and focused on five key aspects of teaching online: social presence, facilitating discussion, collaboration online, live online teaching, and supporting online students. The pilot run took place from 23rd of March to the tenth of April 2020, with 450 participants from a variety of Irish and international higher education institutions. The pilot run coincided with the start of the Covid-19 pandemic and the resulting pivot online, so participant numbers for the course far exceeded expectations due to the demand for professional development relating to online pedagogy.

5.5 Phase 4 Pilot Evaluation

Following the course pilot in March 2020, an evaluation study was conducted in order to explore, understand, and evaluate its impact on the professional learning experiences of the participants and to inform the iterative design process (Farrell et al., 2020). The evaluation study yielded a number of interesting findings in relation to the #Openteach course pilot and educators' experiences of CPLD in four thematic areas:

1. Knowledge and understanding of online pedagogy.
2. Community of educators.
3. #Openteach course design.
4. The Covid-19 pandemic context.

5.5.1 Knowledge and Understanding of Online Pedagogy

When asked if participation in the #Openteach course increased their knowledge of online teaching, 98% of 101 respondents answered yes, 1% responded no, and 1% responded maybe; see Fig. 5.

When asked whether participants would apply their new knowledge and skills in their teaching practice, 97% of respondents answered yes, 2% answered no, and 1% answered maybe; see Fig. 6.

The data show that the #Openteach course impacted both experienced and novice online educators' knowledge and understanding of teaching online in a number of ways:

- Building confidence about teaching online:
- I had no knowledge of online teaching beforehand and I feel I could teach online with my learners now. I have small groups and individuals so I would be comfortable working online with them now.

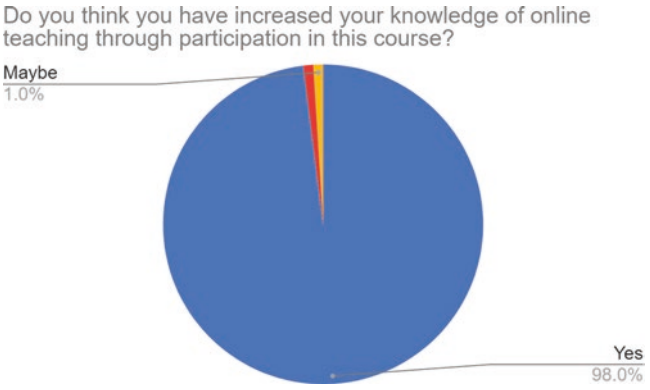

Fig. 5 #Openteach impact on knowledge of online teaching

Fig. 6 #Openteach application of new knowledge in teaching practice

- Developing new knowledge about online teaching including key theories, technology, and strategies for encouraging student interaction:
- I particularly liked the emphasis on pedagogy. The course suited my needs perfectly and allowed me to deepen my knowledge and raise my awareness of the need for carefully designed learning pathways. Online is definitely different to the traditional classroom.
- Gaining insights into online learning by experiencing it from a student perspective:
- Experiencing a fully online course and seeing the different tips and strategies for engagement in an online environment.
- Developing ideas and strategies about engaging students in both asynchronous and synchronous environments:
- Suggestions on how to better engage students – specifically some of the suggestions on how to use breakout activities, polls etc. Opportunity to read all the very useful suggestions from others on the course, in the various forums.

5.5.2 Community of Educators

When asked if during the #Openteach course participants felt part of the course community, 69.3% responded yes, 15.8% responded no, and 14.9% responded maybe; see Fig. 7.

As indicated in the quantitative data reported above in Fig. 7, the majority of the #Openteach course participants felt part of the course learning community. Activities such as the icebreaker, the live online sessions, and the interaction on the asynchronous discussion forums were reported by participants as making them feel part of a learning community.

> It enabled me to reach out from my COVID isolation and connect with other educators across a variety of disciplines, share practices, and learn some extremely useful tips.

For a minority of course participants, they did not feel part of the #Openteach community.

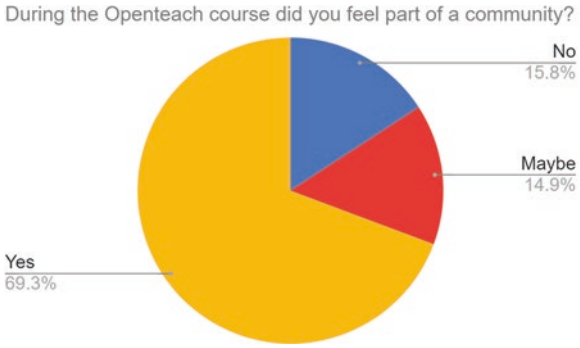

Fig. 7 Feeling part of the #Openteach course community

> The course was very short to feel properly part of a community but I appreciate the attempts that were made and am confident that these would work in a course of longer duration.

The #Openteach community continues to interact, primarily on Twitter. Many participants contributed activity ideas to the Openteach open text book, which was launched at a community event in June 2020 (Farrell et al., 2021).

5.5.3 Course Design

The #Openteach course design was perceived by participants to be interactive, well structured, and user-friendly.

> The layout of the course was easy to follow, it was very well laid out and easy to follow.

The scenario-based learning approach using online educator dilemmas taken was perceived positively by participants and as encouraging engagement.

> I liked working on the dilemmas. It made me really reflect on what I was learning and put it in practice.

The flexible, asynchronous, self-paced chunking of content into short units incorporating animated video and discussion was described in positive terms by participants.

> Being facilitated to work through the course in a way that made it seem so easy because it was broken down into such small little chunks of learning. This made everything very manageable in terms of getting through each topic and task. I also loved the animations that were used to accompany the script relating to the scenarios. I thought they added such meaning to the script. They really were fantastic – actually they were probably my favourite part of the whole course.

5.5.4 Covid-19 Pandemic Context

The release of the #Openteach course coincided with the COVID-19 pandemic in March 2020. Due to the fact that #Openteach was an open and free professional development course about teaching online, the numbers that signed up increased rapidly in a matter of days from 120 to 450. The sudden pivot online by those in the further and higher education sectors thrust many educators into teaching online for the first time.

For those who were teaching online for the first time, the #Openteach course provided them with reassurance, support, and encouragement during a challenging time.

> I am a true beginner so my participation has been limited, but I got a good feel for what is involved in this essential area of teaching.

A number of challenges related to the rapid pivot online were reported in the data by educators. These challenges included problems relating to working from home, poor broadband, underdeveloped digital competencies, time management issues, caring responsibilities, and workload.

> Because we were in crisis, I was not able to give the time I would usually give to new learning. I was fitting this in among a hundred other demands, so I was more stretched than I would ideally be when learning.

> I was working from home due to the lockdown and my internet is not consistent, some days I couldn't get online at all.

6 Final Thoughts

Over the course of the project, the #Openteach project team learned numerous lessons from the design, development, and delivery of the course about online educators' experiences of CPLD, and we share these now as our final thoughts.

CPLD about online pedagogy should be situated online, and the experience of being an online student is invaluable for online educators as it facilitates empathy with students learning in online contexts. Participating in and building a learning community contributes positively to the learning experience for educators. Time management and workload are major challenges for educators; therefore, professional learning should allow for flexible engagement. Building confidence and reducing the fear of online teaching is an important aspect of professional learning related to online education. Developing understanding and knowledge of online pedagogy is an important element of professional learning about teaching online. Finally, confidence and competence with the tools and technologies for teaching online are important threshold digital competencies for online educators.

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Inquiry MOOCs: Privileging Constructive Collaborative Learning for Continuing Professional Development

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Abstract Faculty and instructional designers from Athabasca University created a Massive Open Online Course (MOOC) on Blended Learning Practice (BLP), delivered in partnership with the Commonwealth of Learning to provide open learning opportunities to educators primarily in the global south. The course design and delivery adapt the Community of Inquiry (CoI) theoretical framework to support deep learning and collective inquiry through a collaborative, community-based, constructive methodology and highlight the emerging role of the blended learning instructor as a *bricoleur*, integrating various available technologies and pedagogies empathetically with learners' needs. Learning within a CoI while concurrently learning about CoI from a pedagogical perspective prepares educators to meet the challenges of designing and delivering blended learning programs in a post-pandemic world. This chapter discusses the effectiveness of the BLP MOOC, in terms of both professional development quality indicators and participant response, as a practical example of community-building pedagogical design for technology-enabled Continuing Professional Learning and Development (CPLD).

1 Introduction

Blended Learning Practice (BLP) is a massive open online course (MOOC) offered by Athabasca University in partnership with the Commonwealth of Learning to introduce educators, primarily in the global south, to the blending of traditional in-person classroom activities with multiple technologies and distance education pedagogies. Building upon an open educational resource, *A Guide to Blended Learning* (Cleveland-Innes & Wilton, 2018), the 4-week course is presented as a free

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technology-enabled Continuing Professional Learning and Development (CPLD) opportunity for tertiary-level educators and vocational trainers, as well as teachers, administrators, and other educational professionals worldwide. Course modules integrate community-based discussion activities with videos and chapter readings covering the implementation of blended learning from initial conceptualization to the development, structuring, and evaluation of full blended courses and programs.

BLP was first offered in March 2020, coinciding with the declaration of the Covid-19 global pandemic. The course content took on an immediate and very personal significance as many participants were unexpectedly thrust into emergency remote teaching. By the second iteration in April 2020, a large contingent of participants indicated that pandemic-related restructuring had created an urgent need for more flexible options for CPLD. This chapter will outline the community building pedagogical design, framed in relation to professional development quality indicators and selected participant reflections.

1.1 The Emergence of MOOCs

Since their inception less than 15 years ago, MOOCs have taken a wide range of technological and pedagogical forms in response to varying platforms, learner and subject requirements, and the educational philosophies of their designers and providers. According to Downes (2015), online courses meet the conditions for being called a MOOC when they adhere to conditions of massive size, the openness of resources, online delivery, and containment within a defined course structure, but within this broad definition, two general categories have emerged. Connectivist MOOCs (cMOOCs) focus on active learning in open, participant-led groups, the creation of materials by autonomous learners, and a highly networked social learning environment constructed through interactive communities, blogs, and social media. On the other hand, eXtended MOOCs (xMOOCs) typically emphasize the massiveness of MOOCs, using sophisticated, highly scalable platforms to replicate a lecture-based model. With limited teacher–student and student–student interaction, xMOOCs have been criticized as missing significant evidence from distance education on the need for active, engaged learning, making xMOOCs appropriate for only the most determined and already well-educated participants (Phan et al., 2016).

While the categories of cMOOC and xMOOC provide a useful heuristic for the range of possible forms (Spector, 2017), in practice, the MOOC landscape has become more complex as distance education researchers and practitioners have begun to articulate other pedagogical and delivery approaches for MOOCs (Bates, 2019; Cleveland-Innes & Ostashewski, 2019), including Bali and Caines's (2018) c/x hybrid or dual pathway MOOC and language learning LMOOCs (Agonács & Matos, 2017; Agonács et al., 2020).

1.2 Integrating Community of Inquiry into MOOC Delivery

One emerging innovative approach, and the focus of this chapter, is the iMOOC (Cleveland-Innes & Ostashewski, 2019), drawing upon the Community of Inquiry theoretical framework to implement inquiry-based learning as its guiding pedagogy through an instructor-led design operationalized by multiple instructor roles and shared leadership approaches.

The Community of Inquiry theoretical framework synthesizes teaching and learning activities leading to deep and meaningful educational engagement (Garrison, 2017; Garrison et al., 1999). Three elements of presence—social presence, cognitive presence, and teaching presence—describe the orientation and activity required by both teachers and students for a Community of Inquiry to emerge. Social presence is defined as the ability of participants to identify with the community (e.g., course of study), communicate purposefully in a trusting environment, and develop inter-personal relationships by way of projecting their individual personalities (Garrison, 2009). Cognitive presence requires the use of the inquiry process, critically reflecting on a problem or issue through discourse and reflection to seek meaning and verify individual understanding.

Teaching presence rests on instructional design, facilitating discourse, and direct instruction. It applies as a pedagogical practice to both on-the-ground and in-person teaching for learning as it does for digital and online design for teaching and learning. While not yet heard in the common narrative about teaching, the term teaching presence, as defined in the CoI framework, sheds light on the communal nature of social–emotional learning. Here, all community members have a role to play in supporting the teaching and learning for everyone (Cleveland-Innes, 2020).

As an example of an inquiry-based or iMOOC, BLP has a multimodal instructional design that includes scaled student- and instructor-led activities guided by a textbook, direct instruction, regular inspirational videos, and text-based learning support, along with network facilitation by experienced online student facilitators. This active learning base is supplemented by student-led forums, live synchronous sessions, self-assessment, and certification. In addition, shared guidance in this inquiry-based, community-supported MOOC design encourages engagement and shared application activities about the importance of creating communities of inquiry in the classroom—whether in-person, online, or blended. The iMOOC design encompasses both cMOOC and xMOOC elements, supported by a strong foundation of quality online learning elements such as rich dialogue, supported discussions, and three layers of teacher presence (Anderson et al., 2001).

Although MOOCs as open learning opportunities appeal to learners with a diversity of intentions and motivations, they have often been criticized for high dropout rates of 90–95% (Reich & Ruipérez-Valiente, 2019; Yang et al., 2013). It has been said that the massiveness of MOOCs makes direct contact between learners and instructors and structured engagement impossible (Gil et al., 2015). In contrast, BLP, based on long-standing ideologies of distance education instructional design principles and deep learning through inquiry-based methods, saw a notably higher

rate of engaged and ultimately successful participants, with 22.3% of its 2068 registrants achieving certificates of participation based on quiz-based assessments. Of these certificate holders, almost four out of five also achieved a second, higher level of certification based on a written blended learning design plan as a renewable or capstone assignment.

1.3 The Value of MOOCs in CPLD

Studies of both employers and learners suggest that MOOCs have value for CPLD, and some MOOCs have been specifically designed as a venue for such professional development (Bali & Caines, 2018). In a mixed-methods study, 83% of employers thought MOOCs might have value for CPLD (Radford et al., 2014), while in a recent study of motivation for MOOC enrolment, learners indicated perceived benefits to current or future job roles were a primary motivation (Milligan & Littlejohn, 2017).

Outside of MOOCs, the value of CPLD for educators has been the subject of decades of study. In a 2020 survey of Canadian higher education faculty and instructors, learning pedagogical strategies for teaching in online environments was the number one faculty concern (Johnson & Veletsianos, 2020). If predictions by longtime distance learning educators are correct, the growth of blended learning will continue far into the future, replicating patterns of growth not seen since 2016 (Bates, 2020; Canadian Digital Learning Research Association, 2020).

Some of the critical components and quality features of multiple CPLD delivery methods have been distilled and synthesized as collective participation, duration, active learning, content focus, and coherence (Lindvall & Ryve, 2019). Using the synthesis work of Lindvall and Ryve as a guiding framework, BLP design components can be aligned with the quality indicators shown in (Table 1) and outlined further in the guiding pedagogy section of this chapter.

While MOOCs are typically shorter than traditional courses, they are longer than the standard day or half-day professional development workshop that is common in many educational organizations. In addition, linked MOOCs offered by the Commonwealth of Learning and Athabasca University can be taken as a series of scaffolded offerings and continuous learning opportunities that are delivered in a published schedule throughout the year.

Table 1 Professional development quality indicators aligned with BLP design

PD quality indicator	Definition (Lindvall & Ryve)	BLP PD element
Collective participation	Opportunities to engage with peer and diverse education professionals	Worldwide MOOC attendance instructive elements include • Live participation, weekly discussion forums, and prompts • Student-led area
Duration	Multiple sessions spread over time	BLP runs for four to five weeks (with extension) • Participants have time to digest and reflect • Time schedule includes synchronous/ asynchronous learning
Active learning	Engagement opportunities that are connected to real teaching scenarios	Each BLP discussion is anchored in reflective practice, whereby learners consider the content item in their own educational context
Content focus	Focus on subject-specific matters and pedagogy	Learners are provided with multimodal ways to engage, including • The guidebook • Guided and facilitated discussion • Shared metacognition is encouraged through linking context similar learners • The final renewable assignment based on their individual pedagogical milieu
Coherence	Alignment with policy standards, values, and beliefs	BLP is, by design, a blended practice course about blended practice

2 Professional Development Quality Indicators Represented in BLP

Participants in BLP were invited to complete a pre-course registration survey and a post-course evaluation. Learners who attend the MOOC represent a variety of teaching and learning contexts. Of the 944 respondents who indicated a primary reason for taking the course, 374 (39.6%) took the course out of general interest in blended learning practice, 361 (38.2%) for professional development, 104 (11.0%) specifically to earn a certificate, and 53 (5.6%) out of general interest in MOOCs. A large majority of respondents (844, 88.9%, $n = 949$) intended to complete all activities and earn a certificate of completion. To complement this data on pre-course intentions, post-course reflective comments ($n = 267$) were analyzed along the five quality dimensions as outlined by Lindvall and Ryve (2019).

2.1 Collective Participation

Collective participation as a quality dimension is fully encapsulated in the CoI framework for MOOC design. Reflective prompts are integrated into the content throughout the course, and each module includes discussion boards to encourage discussion around key teaching, design, and leadership issues. The collective participation dimension will be discussed in deeper detail in the guiding pedagogy section of this chapter. As with any educational offering, learner comments spanned those who thought the interaction and opportunities for collaborative participation were sufficient and those who wished for even more. In one of the learner's words,

> Keep up the good work, as I had previously done a MOOC (it was my first) and there was little interaction from the facilitators. However, I was pleasantly surprised when I saw the level of interaction in this course. It was a welcome reprieve.

2.2 Duration

Duration speaks to the idea that effective CPLD spans over time. It is that dimension that sets BLP apart from the standard afternoon or day-long in-service type delivery. BLP is a 4-week course with an additional week to complete the final assignment. Temporality in the MOOC is managed in both synchronous and asynchronous ways. The asynchronous portions allow for learners in any time zone to drop in at their convenience. The scheduling of synchronous events is established with consideration for global time zones, and recordings are made available as a secondary access option. This allows a degree of choice, responsibility, flexibility, and the agency that has been evidenced to support teacher professional development (Butler et al., 2015). One learner described the benefits of flexible access and agency in scheduling:

> The information provided was useful and will be employed in my teaching strategies as I traverse the online teaching environment. I like the fact that the delivery of the course was self-paced.

2.3 Active Learning

Active learning refers to opportunities for content practice (Lindvall & Ryve, 2019). BLP learners are actively and simultaneously experiencing the insider/outsider perspective of learning within a CoI while learning about CoI from a pedagogical perspective. This form of experiential learning prepares educators with confidence and competency to meet the challenges of designing and delivering blended learning mechanisms that allow learners to try out different practical application aspects. The active learning dimension is further developed through the use of the submission and feedback on a final assignment that is authentically tied to each learner's unique

blended learning design concerns. Seventeen comments focused on active learning, with most describing an appreciation or desire for more opportunities to be active with technology.

> My suggestion to the team of course instructor and designer: More synchronous activities to get used to technologies.

2.4 Content Focus

Content focus considers the pedagogical and subject-specific aspects of CPLD, made particularly challenging in a global MOOC by the range of working contexts learners bring to the course. To maintain a focus on subject-specific content within the situational richness of multiple learner contexts, learners are invited to form groupings with educators concerned with BLP design in similar subject areas. In this way, content specifics can become the subject of shared metacognition (Vaughan & Wah, 2020) and collaborative reflection (Clarà et al., 2017). Content focus, particularly in the form of case studies, was a key area of recommendations from learners.

> I think more examples could have been added for the topics – Case studies of the models and variations on blended learning. More video lectures to listen.

Content focus is further built into the final renewable or capstone assignment in which learners reflect on the practical and pedagogical implications of designing a blended learning course for their own subject area and context. Renewable, generative, or nondisposable assignments represent a pedagogical strategy, often linked to the open education movement, that considers learners as producers, working on assignments not merely for assessment sake, but for an audience broader than the assessor and hopefully with enduring utility in their lives (Bruff, 2013; Stommel, 2015; Wiley, 2013).

2.5 Coherence

The final quality dimension, coherence, speaks to authenticity and helping learners align the course with their local values and beliefs (Lindvall & Ryve, 2019). Coherence is built into BLP design through prompts and facilitation: learners are guided through a cycle of content reflection throughout the MOOC as facilitators coach them to consider multiple perspectives. Working within a learning ecology involves becoming a *bricoleur*, thoughtfully integrating various available technologies and pedagogies while privileging an empathetic lens on learners' needs through the cultivation of cognitive, teaching, social, and emotional presence. Twenty-seven comments focused on some aspect of coherence.

> Course design was interesting, user-friendly and attention paid to minute details encouraged a lot of inter participant discussions, and thought-provoking questions from facilitator and inspirer was the best part, especially for adult participants.

While preliminary evaluation comments suggest that BLP aligns with all five quality elements as synthesized by Lindvall and Ryve (2019), BLP has a specific pedagogical focus grounded in the Community of Inquiry framework and a focus on collaborative constructivist pedagogy (Garrison et al., 1999). Using the Community of Inquiry as a pedagogical framework for CPLD has been researched to promote reflective teacher practice (Kaul et al., 2018) and the more societal level importance of educational change and reform (Butler et al., 2015). The remainder of this chapter will focus on the quality construct of *collective participation* and community building in CoI as the primary guiding pedagogy to support collective participation while reducing barriers to community building.

3 The Guiding Pedagogy

The Community of Inquiry theoretical framework guides the design, delivery, and collective inquiry stance in BLP course modules. CoI has been researched as a framework for MOOC delivery (Chen et al., 2017; Cleveland Innes et al., 2019; Cleveland-Innes & Ostashewski, 2019; Goh, 2020; Goshtasbpour et al., 2020). As described above, BLP participants learn both *within* and *about* CoI through a practice-based MOOC designed to create conditions for reflective learning through collaborative, deliberative dialogue around the chapter readings for each unit in relation to their own teaching contexts. This form of immersive, active, experiential learning prepares educators with confidence and competency to meet the challenges of designing blended learning programs in a post-pandemic world.

3.1 Meta-Community

Educators involved in BLP learned about the need for socially constructed learning for a community that bridges in-person and online learning environments. Collaborative spirit, task interdependence, and social ties have been found to increase learner engagement in MOOCs (Sun et al., 2020), and BLP participants saw and felt, firsthand, what this learning environment is like. They were encouraged to consider these attributes of a learning environment and reflect on how these might apply to their individual blended classrooms.

BLP is designed to build on the essence of CoI pedagogy in a scalable way. This includes building for the inclusion of teaching, cognitive, and social presence. The presence of emotion was acknowledged and supported. These design principles provided a potential antidote to what Lin et al., (2008) highlighted as barriers to

Table 2 Barriers to community building contrasted with BLP pedagogical elements

Barriers to community building	BLP design antidote	Weeks 1–4
Role ambiguity	Reduce ambiguity by • Explicit description of the guiding pedagogy • Reinforcement of learner as teacher	Week 1
Diversified foci	Increase focal diversification by • Linking learners by context (geography, learning level, identified issues)	Weeks 1–4
Lack of psychological obligation	Increase psychological reciprocity by • Acknowledgment and connection afforded to those who post later • Link back to earlier posts • Increase task interdependence by asking learners to expand, connect, or relate • Collaborative constructivist spirit • Collective reflection	Weeks 1–4
Temporal conversation flow	Reduce temporality by • Facilitating on a 24 h clock • Synchronous sessions designed with universal time in mind • Linking learners to past discussion and future parts of the guidebook	Weeks 1–4
Fear of criticism	Reduce and normalize emotions related to unfamiliar pedagogy • Recognize expert deference and gently introduce right/wrong ambiguity across contexts • The role of the course inspirer highlights and synthesizes participant contributions	Weeks 1–4

community building with MOOCs: reducing role ambiguity, lack of psychological obligation, temporally related conversation flow and diversified foci, and fear of criticism or self-consciousness. Table 2 outlines specific pedagogical elements designed to build community and increase collective participation.

3.2 Reducing Role Ambiguity

Role ambiguity can be defined as significant work stress (Bowling et al., 2017). According to McCormack and Cotter (2013), role ambiguity describes "the lack of clarity, certainty and/or predictability one might have expected with regards to behaviour in a job due, perhaps to an ill-defined or ambiguous job description and/or uncertain organizational objectives" (p. 42). For long-time educators, especially those in traditional instructor-led contexts, the idea of teaching presence as a socially shared construct can bring considerable role ambiguity. BLP participants explored teaching presence, empowering their students by sharing the lead in course design, facilitation, and instruction while holding the reins of the overall course direction.

Discussing the adjusted roles for students and teachers and making these roles explicit reduces role ambiguity and discomfort while reinforcing teaching presence as something that emanates collectively from the community.

3.3 Reducing Temporality of Conversation Flow

Learners join BLP from around the world and from widely differing time zones, with particularly strong participation from Asia, the Caribbean, Africa, and the South Pacific. To ensure a steady sense of instructional presence, the facilitation team, under the coordination of a Course Inspirer, attends the MOOC several times a day to promote learner–learner interaction (Anderson, 2003). By networking or bridging between conversations, the facilitators emphasize spontaneous connectivity over conversational turn-taking. At a higher, more global temporal level, the role of the Course Inspirer is to support learner synthesis by providing a weekly video summary acknowledging prominent participant voices during the week and highlighting emergent themes across these various conversations, such as the need for localization of blended learning practices or for informal, grassroots leadership.

3.4 Diversified Foci

Diversified foci are a problem related to not seeing the content in context. In this diverse group of participants, diversified foci are managed by coaching users to reflect on the content in reference to the context in the larger discussion forum, while simultaneously coaching them to develop small groupings and set up their own contextual conversations through learner-controlled and -generated forums.

3.5 Lack of Psychological Obligation

Related to reciprocity, Lin et al. (2008) suggested that where there is massiveness in group size, the usual sense of social obligation is reduced. To reintroduce a sense of information reciprocity, the facilitation team addresses their responses not only to the original poster but also to the collective and future readers. Facilitators link learners back to past posts to create continuous connections and highlight the significance of contextually varied, multiple perspectives rather than learning through didactic conversational conventions. This opportunity for collective reflection on social-psychological obligation provides a sense of community and the individuals in it and potentially a bridge to more engagement, effort, and common actions in support of others in the learning environment.

3.6 Fear of Criticism and Self Consciousness

The last barrier raised by Lin et al. (2008) is the fear of criticism and self-consciousness. This is a complex issue and often related to individual participants' local conditions before and after taking the MOOC, as well as experiences they may have in the course itself. Participants may be coming from historical contexts in which instructors dominate the role of expertise, and while it is a primary pedagogical goal to move learners to be more confident with collaborative inquiry, such a move may lead to a sense of personal and professional risk. Negotiating this risk is coached by the inspirer and facilitators by highlighting and connecting contributions to validate collective and multiple, context-specific expertise, in line with a bricoleur approach, CoI pedagogical values, and Chen et al.' (2017) facilitation strategy to "clearly define the community's values and vision, explain to the community members the meaning of why sharing is important for teacher professional development, establish a shared understanding among members, and enrich the content and information in the community" (p. 176).

4 Conclusion

This chapter has outlined a practical example of a technology-enabled CPLD offering. Examining BLP along the two constructs drawn from the literature on quality professional development indicators and barriers to community building supports the conclusion that an inquiry-based or iMOOC design can create the conditions for the social, cognitive, and teaching presences of the CoI pedagogical framework to emerge at scale. The Internet and its affordances bring opportunities for a CoI learning design to be built into CPLD programs that are of longer than standard duration and focus on active participation, collaborative constructive pedagogy, coherence, and contextually relevant content, empowering learners to participate in shared metacognitive discussions and deliberative dialogue with a variety of intellectually, culturally, and contextually diverse educators.

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Get Interactive: The Value of a MOOC for Continuing Professional Learning and Development

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Abstract Get Interactive: Practical Teaching with Technology is a Massive Open Online Course (MOOC), which was launched in 2017. The course, for anyone who teaches online in higher education, has actively engaged over 21,000 participants worldwide. This chapter explores the multifaceted value that MOOCs such as Get Interactive offer participants and institutions as a form of Continuing Professional Learning and Development. In contrast to dominant forms of MOOCs as scaled-up online versions of undergraduate courses featuring talking-head videos with limited participant engagement, Get Interactive was designed to model and promote social and collaborative learning with technology. Supported by the Bloomsbury Learning Exchange (BLE), the MOOC aimed to create a cross-institutional community of practice of online teachers in Higher Education. Drawing on Laurillard's (Teaching as a design science. Routledge, 2012) approach to teaching as a design science and Wenger et al. (Promoting and assessing value creation in communities and networks: A conceptual framework Rapport 18. Heerlen, 2011) value creation framework for assessing professional learning in networks and communities, the chapter considers the extent to which we can evidence immediate, potential, applied, realized and reframing value for MOOC participants. Data from participant reviews and engagement with collaborative activities are examined in relation to these five values.

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Finally, the chapter reflects on the value for institutions of low-cost, high-impact MOOCs like Get Interactive.

1 Introduction

The approach to Continuing Professional Learning and Development (CPLD) taken here draws on previous work exploring the value of Massive Open Online Courses (MOOCs) for scaling up collaborative online professional development (Laurillard & Kennedy, 2020), particularly for teachers in Higher Education (Kennedy & Laurillard, 2019; Laurillard, 2016). MOOCs have been dogged by controversy over their apparent high drop-out or low completion rates. Compared to typical undergraduate courses, without the motivation of a high stakes, tutor-marked, summative assessment, a relatively small proportion of MOOC participants complete all assignments for their courses (Hollands & Tirthali, 2014). However, there is a growing body of scholarship that argues that comparisons to undergraduate courses are inappropriate (Kizilcec & Piech, 2013; Kizilcec & Schneider, 2015; Walji et al., 2016), since MOOC participants have different motivations for study and other measures are better suited to assessing their success. For professionals, who have achieved a high level of education and are experienced, self-regulating learners, MOOCs offer the potential to learn both from the course designers, and from each other, in courses that support peer dialogue and knowledge building (Scardamalia & Bereiter, 1991). The chapter discusses the design and evaluation of "Get Interactive: Practical Teaching with Technology" a co-designed CPLD MOOC for teachers that has been available "on demand" on the Coursera platform since 2017 (henceforth "GetInMOOC"). Drawing on a range of evidence, we will show that engagement with GetInMOOC creates multiple cycles of value for participants, that can include, but are not dependent on, completing all assignments. Crucially, we show that this value extends to the application to practice, and the realisation of value for others, including participants' students, colleagues and institutions.

1.1 Continuing Professional Learning and Development of Teachers as Designers

The approach to CPLD taken here draws on Laurillard's (2008, 2012) conceptualisation of teaching as a design science conducted by teacher-designers, encouraging teachers to design and share effective educational uses of technology. GetInMOOC aimed to create an online learning community to support higher education teachers to create dynamic, interactive online courses and to share their own knowledge, skills and understanding with each other. Specifically the learning objectives of GetInMOOC were to support teachers to use multimedia tools (week 1), create

student collaboration opportunities (week 2), and provide formative assessment and feedback through technology (week 3).

A MOOC was an ideal vehicle for this since MOOCs based on CPLD principles have the potential to offer effective, quality learning for teachers (Falkner et al., 2017) by creating flexible, collaborative, social learning opportunities (Smith et al., 2016). The kind of opportunities they provide are for "just in time learning", defined as "anywhere, anytime learning that is just enough, just for me, and just in time" (Brandenburg & Ellinger, 2003, p. 309). Moreover, MOOCs can provide economies of scale that can have enormous benefits to governments facing increasing demands for retraining and professional development of the workforce (Marrinan et al., 2015). If we are able to design quality, cost-efficient, MOOCs that have evidenced impact on participants' CPLD, then we have a sustainable approach to upskilling the global teaching workforce, with benefits for teachers and learners everywhere.

Nevertheless, to make any informed judgement about the effectiveness of MOOCs for CPLD, what is required is an examination of value created for participants over a sustained period. We therefore adopt an evaluation approach adapted from Wenger et al. (2011) to demonstrate the impact for participants of engaging in high-quality MOOCs both during, and critically, after completing the course.

2 To Bloomsbury and Beyond! The Origins of GetInMOOC

The origins of GetInMOOC lie in 2014 with the Bloomsbury Online Course ("BLOOC") – a pioneering cross-institutional course driven by the Bloomsbury Learning Exchange (BLE) to provide value to its partner institutions through collaboration. The BLOOC was led by Eileen Kennedy at the Institute of Education (now part of University College London) and co-designed with learning technologists and champions at the BLE consortium, at the time comprising Birkbeck, Institute of Education, London School of Hygiene and Tropical Medicine, Royal Veterinary College, and the School of African and Oriental Studies. The aim of the BLOOC was to co-create an online course open to all staff at these five institutions that would model good practice in teaching and learning with technology, showcase excellent work at each institution and develop a community of practice across the broad spectrum of academic disciplines represented by the five institutions. The course was designed to leverage interest in online learning generated by the MOOC phenomenon but also to create a model that more precisely fitted the needs of the target group with the specific aims identified below. The first run of the BLOOC achieved 230 enrolments, managing to engage far more staff than could attend face-to-face workshops, and feedback was wholly positive. In subsequent runs, there were requests from staff not based at the BLE consortium to participate, and in 2016 we proposed a scaled-up version of the BLOOC on the Coursera platform and were awarded £13,000 from the University of London to create the course in 6 months.

2.1 GetInMOOC Design

Our challenge was to design a MOOC with few resources and limited time. We were also aware that the higher education teachers we targeted had little time for teacher CPLD (Philipsen et al., 2019). Our response was therefore to make each unit of the course worthwhile, providing practical takeaways that combined pedagogy with technological skills. The pedagogical foundation for the course was Laurillard's (2012) Conversational Framework. Laurillard (2012) synthesised pedagogical insights from learning theory (including Dewey, Vygotsky, Piaget, Pappert, Bandura, Lave and Wenger and many others) into a model of the conditions necessary for teaching and learning to take place. This framework proposes that the teacher should engage learners in three cycles of communication: the Teacher Communication Cycle (where teachers communicate and monitor learning concepts), Teacher Practice and Communication Cycle (where teachers model learning and set up environments for learners to practice concepts) and the Peer Communication Cycle (where students can communicate concepts and support learning for each other). To put these in place, the teacher is required to design opportunities for the learner to engage with six types of learning: acquisition, investigation, discussion, practice, production and collaboration. Critically, only the first of these involves the teacher presenting information to the student, thereby shifting the emphasis away from lecturing to facilitating students' learning, and providing an education-driven approach to using technology to support the six learning types. An online tool (http://learningdesigner.org) provides teachers with practical help to instantiate the Conversational Framework in their teaching.

GetInMOOC modelled the Conversational Framework by engaging participants in the three cycles of communication and providing learning experiences based on the six learning types. Since patterns of engagement in MOOCs typically drop off week by week, the first week included the key design principles essential for participants to meet the course objective of creating dynamic, interactive online courses. The Conversational Framework was introduced at the very start, and a Learning Design (created in the Learning Designer tool) was provided each week showing the learning outcomes and the ways that the activities were designed to enable the participants to meet them. In this way, we made our pedagogy explicit and encouraged participants to apply and reflect on the theory through a series of practice, discussion and collaboration activities. For example, in week 1 we asked participants to set up a practice course (investigate), create and modify images, embed a multimedia resource in their test course (practice), post an image to the online pinboard, Padlet (collaborate), and share their experience and application for their own teaching in the weekly forum (discussion). Acquisition came in the form of screencast tutorials, written advice and professionally filmed panel discussions featuring innovative teachers from the BLE consortium sharing their experience. Finally, a peer review activity provided both an individual production activity to evidence learning, as well as peer feedback. The learning design for week 1 is presented in Fig. 1.

Fig. 1 GetInMOOC learning design for week 1

In this way, GetInMOOC foregrounded practical, social and collaborative learning and gave participants first-hand experience of using technologies for these purposes. The subsequent weeks delved deeper into these forms of learning. For example, in week 2 participants built a comprehensive resource on technology and education together by adding pages to a wiki on technologies they had used, tagged with the six learning types from the Conversational Framework. In week 3, participants focused on assessment, considering the role of feedback and the ways that technology could facilitate it through rubrics, peer review and digital badging.

2.2 Evaluating the Effectiveness of MOOCs for Teacher CPLD

Existing approaches to the evaluation of MOOCs tend to focus on what happens inside the course, primarily measuring satisfaction or engagement levels. While this is important for MOOCs for CPLD, what is also needed is a measure of the impact course participation has on subsequent professional practice. An approach is needed that combines quantitative and qualitative data and does not stop at what happens in the MOOC but considers the impact on participants afterwards, including participants' influence on others, e.g., students, colleagues, or their institution as a whole. The Wenger et al. (2011) framework for tracing value creation in social networks or communities of practice is a good starting point for constructing such a methodological approach because it aims to track multiple sources of evidence of the value of engaging in a social professional learning activity for the members that take part. While critics may counter that a MOOC is not a social network or community of practice, Wenger et al. (2011) suggest using the terms network and community loosely, instead foregrounding the importance of blending the process of individual and collective learning, so that participants develop shared practice together. In the case of GetInMOOC, its design and development extended community knowledge about teaching with technology within the BLE, and the collaborative activities within the MOOC invited new participants to join in and share their experience and learning. A focus group with participants conducted at the end of the first run indicated that participants valued the opportunity to learn from each other and wanted to be able to maintain the community that they had experienced. In response, we created, first, an email discussion list and, later, a Facebook group to accompany GetInMOOC, which shows a sustained commitment to community. We have also involved former participants in the mentoring and maintenance of the MOOC itself, which is a tangible form of community partnership. Several organisations have set up private runs of the MOOC (see below), which offer participants more opportunities to develop a community of practice.

The Value Creation Framework is useful for the analysis of MOOCs since it supports the "triangulation of multiple sources and types of data" (Wenger et al., 2011, p. 8) including digital datasets arising from platform engagement. However, what counts as value creation cannot always be neatly defined from the outset. As a result, Wenger et al. (2011) argue that value creation should be considered in the context of narrative, suggesting that personal and collective value creation stories are constructed to bring meaning to the data.

Wenger et al. (2011) proposed that there are five cycles of value creation. The first cycle is the immediate value of the activities and interactions undertaken. This includes social support – for example, getting tips from colleagues and emotional or practical support with a difficult work problem. The second cycle is potential value, also described as "knowledge capital" (Wenger et al., 2011, p. 19) since it involves learning things whose value is to be realised later, such as skills or information. The third cycle, applied value, involves putting knowledge capital into practice, for example, trying out a suggestion. However, it is not certain that such applications of

knowledge gained will be beneficial, so the fourth cycle is realised value and is the evidence of improved performance. The final cycle, reframing value, is the value that is created when participants use the evidence of impact to reconsider their goals and strategies and what counts as success. This can happen at an individual or institutional level.

The five cycles of value creation offer a complex framework to consider the kinds of data that indicate the impact of MOOCs. The Coursera platform automatically collects data that can evidence cycles 1 to 3 such as enrolment and engagement statistics, course ratings, course reviews and peer assessment submissions. At the time of writing there have been 609 content ratings thus far and 251 reviews. In addition to participants' reviews of the course, Coursera also collects "learner stories" from participants that provide more contextualised insights into participants' motivations, experiences and practice. Thus far, there are 86 learner stories. The qualitative data were analysed using a template analysis approach (Brooks et al., 2015). This involved a process of familiarisation with the data before coding according to a priori themes derived from each of the five cycles of value creation.

It remains challenging, however, to find evidence of the later cycles of value creation (realised and reframing value) from the platform data alone since these cycles occur once the participant has completed the MOOC. For this reason, former GetInMOOC participants who have gone on to become course mentors share their value creation stories and contribute to this chapter. These reflections show how GetInMOOC shaped not only the practice of participants, but the ways students, colleagues and their wider institutions benefitted from their participation in the course.

2.2.1 Immediate, Potential and Applied Value in GetInMOOC

Enrolment and engagement data from the platform demonstrate the immediate value of GetInMOOC. At the time of writing, 41,000 participants have enrolled in the course and of these, more than half (21,255) have started to learn. The top ten countries for enrolment can be seen in Fig. 2.

Since teachers are busy professionals, it is easy to see why other commitments may intervene between intention to study and actually studying, but the act of enrolment shows that participants perceive value in having access to the content as presented. One of the values of an "on demand" MOOC such as GetInMOOC is that the course is available for free at any time that participants need it. The value of this is visible from the experience of Covid-19 in 2020. While universities were rushing to create materials to support teachers to shift to online teaching and learning, GetInMOOC was already available. Enrolment and engagement figures peaked between March and September 2020 during the first surge of COVID-19, demonstrating that the MOOC was available "Just In Time" as teachers sought to learn how to move their teaching online (see Fig. 3).

Learner stories make this value clear. Many of the learner stories posted since March 2020 have mentioned the impact of the Covid-19 pandemic as a motivation

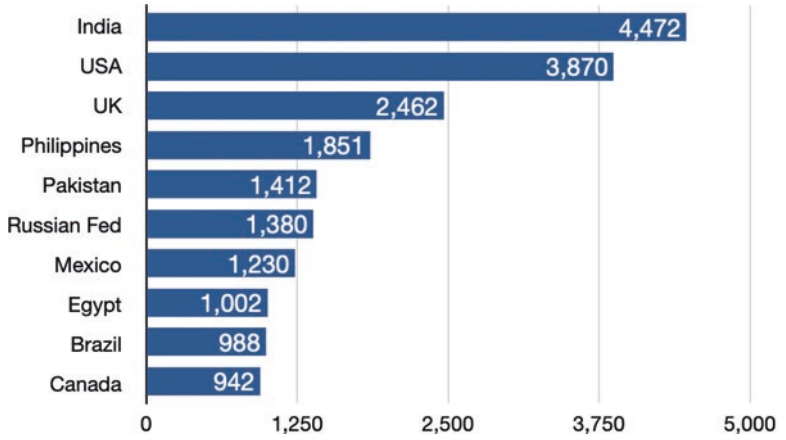

Fig. 2 GetInMOOC top ten countries for learner enrolment

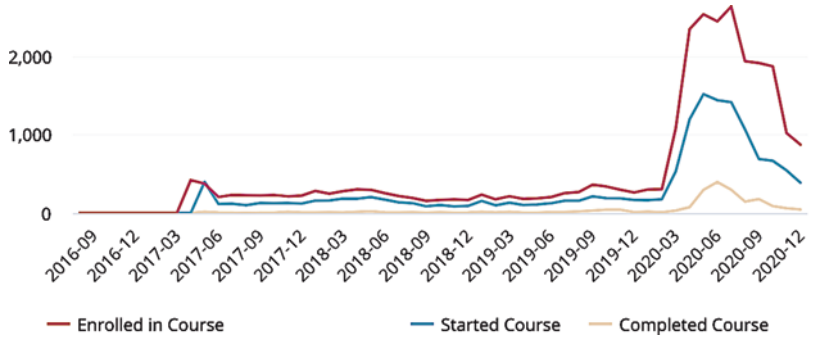

Fig. 3 GetInMOOC enrolment and participation trends over time

for joining and communicate a sense of relief at finding a free learning opportunity like this:

> After the world has been overturned by a global pandemic … we, teachers, felt so helpless. However, with your assistance and guidance, I began to breathe again. (Learner story, Egypt, August 2020)
>
> During the lockdown … we shifted to online teaching. I was shocked because I wasn't ready to teach … So, I enrolled in this course … I got deep understanding of online teaching platforms and tools. (Learner story, Lebanon, July 2020)
>
> I was sort of compelled to take my teaching online due to the current COVID-19 situation. I was completely clueless as I had never used an LMS before or I had never taught online. However, your course not only helped me to learn but it also gave me the confidence to teach online. (Learner story, India, August 2020)

The positive response to GetInMOOC is evident from participants' content item ratings who gave the course an overall score of 4.7 out of 5 from 609 ratings (rising to 4.8 for course completers). Reviews and learner stories bear this out with 198 of 235 reviews giving the course 5 stars, and positive comments indicating increased

confidence in online teaching gained from participation, interaction and peer exchange:

> It felt so real, like I was interacting face to face with your team and all my peers. Sometimes I would forget that I was doing it from my house. It was also full of surprises. Every beginning of the week meant learning something new and it felt so exciting. (Learner story, Kenya, September 2020)
>
> Thank you very much for the opportunity to learn and interact with you. This course made me more confident that I can be successful in my online class. (Review, August 2020)
>
> It was an amazing opportunity to improve my teaching skills using technology. I got several ideas and also exchanged many. (Review, July 2020)

As for potential value, the majority of reviews communicate self-reports of learning gains. For example,

> [GetInMOOC] has helped me in gaining many new skills and developed new concepts in using various technology for online teaching. (Review, June 2020)
>
> I learned many new things [such as] … importance of student collaboration and use of discussion forums, twitter polls, and wiki projects … feedback … choosing rubric for assessment, and appropriate use of plagiarism tools. (Review, June 2020)

However, learning was also visible from participants' engagement with activities in the course. As a practical course, every week, a peer-reviewed assignment was available for participants to show they had mastered the skills and understanding of that week, but there were also activities throughout the course that required participants to implement techniques and share these with their peers. For example, participants have added hundreds of pages to the "Favourite Tech" wiki activity that invited assessments of tools in relation to their capacity to support any of the six learning types from the Conversational Framework, while other participants have rated and commented on the tools and technologies contributed. This activity, not only demonstrated that participants had understood the concepts – pedagogical and technological – but were able to implement them in their own practice by contributing to the shared resource. Another example of applied value is provided by the Twitter poll activity – participants' ability to create and share a Twitter poll can be evidenced by searching for the #getinmooc hashtag on Twitter.

These course activities, culminating in the peer review assignments, demonstrated not only potential value but applied value as well. Participants self-reported this practical learning:

> The educational activities are designed to ensure that there must be a successful take away for participants. I have greater confidence with incorporating educational technologies in my teaching. (Review, May 2020)
>
> Had a wonderful time doing this course. Most of all I actually learnt how to do things like embed Twitter feed, make badges etc on Moodle. I also learnt how to edit videos which I hadn't done before. (Learner story, July 2020)

While there is plentiful evidence of the immediate, potential and applied value for participants in the course, it is less easy to document evidence of realised and reframing value since these are more likely to happen after participants finish the course. Nevertheless, in the next section, we present compelling evidence that the course benefitted not only the participants but also their students, colleagues and institutions.

2.3 After the MOOC: Realised and Reframing Value

While course engagement data, reviews and learner stories indicate that participants were able to learn and apply what they learnt, realised value relates to what they did with this learning to benefit their students. There were also some indications that participants were taking the knowledge and skills they gained to their classrooms in the reviews and learner stories:

> This course helped me a lot to learn about the available online tools and it has made my job as a teacher not only easy but also very interesting. My students are also enjoying technology-enabled learning a lot. (Review, August 2020)
>
> The course really teaches practical tools that can be implemented even while you are attending this course. I have learned new ways to make my class more alive and interactive. (Review, July 2020)
>
> I loved applying what I learned each week with my students! (Review, April 2018)

It would be useful, however, to have more detail about what aspects of the course participants were implementing and the impact of these on students. Many of the reviews and learner stories also indicated that participants' approach to online teaching had changed – for example, becoming more interactive and embracing learning design, which could indicate evidence of reframed value. Another, possibly stronger indicator of reframed value is participants taking the course and embedding it within an institution's CPLD strategy for online teaching. We supported UCL to embed the course in a pre-service teacher training programme for the Post-Compulsory Education sector and the Royal Veterinary College to facilitate a private run of the course for a PG Cert in Veterinary Education and Distance Learning. These examples show that the course has supported educators to reassess their approach and adopt the MOOC as part of their provision. Other institutions who had no prior contact with us have independently embedded the course. For example, Port Said University, Egypt, used the course in their post-Covid-19 CPLD for teachers, and participants have noted in reviews, learner stories and discussions on social media that their participation in the course has been motivated by their home university's recommendations, for example:

> I'm a senior lecturer … in Dow university. This course was suggested by our teaching training team. (Learner story, June 2020)

Other respondents mentioned specifically that they intended to share the course with colleagues at their home university.

While these examples provide evidence of longer term and broader impact of the course, it is useful to reflect on the ways that the accumulation of different forms of value contributes to individual participants' professional development and career goals. In the next section, therefore, we present value creation stories contributed by learners who became course mentors.

2.3.1 Value Creation Stories from Our Volunteer Mentors

The following reflective accounts are provided by four co-authors who represent the range of participants on the course, from teaching academics, to student administrators, learning designers and technologists. The first narrative comes from Carol, who demonstrates how participation in the MOOC supported her career development towards technology-enhanced learning, in which capacity she was able to share what she learnt with colleagues across her institution:

> As an administrator on a Distance Learning (DL) course, I was tasked with finding creative and interactive ways to improve student engagement on the VLE…
>
> Posting on MOOC forums allowed me to reflect on how to better support students who were new to forums or 'shy to engage'. I incorporated changes to student guidance on engaging on a forum and added advice to lecturers on how to stimulate more discussion. These small changes made a big difference, as student engagement statistics improved year on year.

Carol's narrative shows how she gained value from taking part, reflecting on her own experience as a learner, and applying what she learnt immediately to her own practice. In addition, Carol reports the realised value of seeing the effect on students, and documents how the course transformed her own approach, her career (she became a learning technologist) and subsequently that of her institution's use of the VLE.

The second value creation story from Hifzah, a programme administrator, also reflects on the value of mentoring:

> As a mentor, I've seen the questions learners pose as well as their conversations with one another. The discussion forums are rich with ideas and interaction about how and why online tools are being employed for learning and teaching. These discussion forums are creating a community of practice and reaffirming the dialogue needed for creating supportive and challenging learning environments. There are also comments about learners needing these skills as part of their jobs, across the globe. This speaks to the relevance of the course but also the shifting trends globally in education; we must be mindful then of local context, freedom to choose how we learn and teach within those local contexts and ensure this is all discussed openly, critically and with respect.

Hifzah's reflections affirm the possibility of global MOOCs to create a learning community among the professionals they engage, whilst supporting contextualised practice.

As a lecturer in a small university with computer anxiety, Sarah's value creation story illustrates other ways that the course can reframe participants' professional relationship with technology from begrudging and limited use of a VLE as a repository, to becoming the informal EdTech advisor for the department:

> I have computer anxiety – I am very anxious about trying new things and even more so if I am expected to share my new knowledge with others. When the opportunity to engage with GetInMOOC came along I thought it might help – and boy did it! Being guided and supported to try new things, share them with others in a safe environment and with no judgement filled me with enthusiasm. I did try new things, I shared them with my colleagues in the office, I embedded them in my teaching, I became the person to go to when other staff had interaction questions. This really helped to lift my profile in the team.

Sarah's narrative shows how the MOOC enabled her to reflect critically on her existing use of technology and reframe it in ways that support interaction and engagement – she has now completed a PhD in computer anxiety.

The final narrative comes from Vicky, who is a learning designer at the University of London Worldwide, an institution that specialises in distance education. Vicky showed how GetInMOOC influenced her institution's approach to online learning:

> The course helped to inspire my institution's use of external tools in our programmes. Our previous approach was to fully embed and integrate all learning content into a single VLE. Now we are more flexible and encourage students to select their own tools for many activities … [encouraging] digital independence, allowing students to create artefacts that they can access at any point in the future that will not vanish when their course access finishes.

Vicky's narrative provides detailed evidence of reframing value as a result of her participation. The continued involvement of mentors like Vicky and the others enables the MOOC to self-sustain, and continue to provide transformative learning experiences, like those presented here, for others around the world.

3 Conclusions

This chapter has presented evidence of immediate, potential, applied, realised and reframed value creation in GetInMOOC. This MOOC, which has been created with inputs from many partners and continues to be sustained with support from the learner community, was created on a strictly limited budget but has had a major impact through engaging education professionals worldwide. This shows that MOOCs – particularly those that are designed with peer learning, interaction and collaboration in mind – are capable of providing meaningful and impactful CPLD at scale. The cost efficiency of this approach means that whenever we need to upskill the global community of teachers, MOOCs should be considered. Blending MOOCs into face-to-face courses (e.g. as a private run) also offers the possibility of contextualising the content for a specific cohort (Kennedy, 2021). Global events such as the pandemic have illuminated the need for rapid professional development of teachers at scale. Sadly, there will be many other crises when such just-in-time learning is required – MOOCs can provide this solution.

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Cross-Cultural Mentoring in Tertiary Education: Enhancing Self-Efficacy in Online Teaching Through Collaboration and *Openness* in Professional Learning

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Abstract This chapter re-imagines continuing professional learning and development for tertiary educators through cross-cultural mentoring through the lens of the authors' experiences with the UNESCO Open Education for a Better World mentoring project. Professional learning occurred while engaging in the actions and processes in this mentoring project, thus improving self-efficacy, as the mentor and mentee collaboratively developed an online, open-access course on 'Instructional Design'. The authors' experiences of cross-cultural mentoring are informed by the theory of self-efficacy, thus highlighting mastery experiences, social persuasion, social modelling, and choice processes that impact continued professional learning and development. Framed by research on boundary crossing, the authors share their story of cross-cultural mentoring as an approach for re-visioning open, collaborative, continual, online professional learning and development.

1 Background

Emerging from the challenging times resulting from the COVID-19 global pandemic, it is ever more evident that tertiary educators should be engaging in networked, collaborative, and cross-boundary learning opportunities (Darling-Hammond & Hyler, 2020; Nerantzi, 2018; Rowe, 2020). Research suggests that awareness of the need for collaborative learning is lacking (Burns et al., 2020) and that cross-institutional and cross-boundary academic development is a potential way forward (Nerantzi, 2019). Yet this is an under-developed area of study

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(Nerantzi, 2018). Research literature imparts a few examples where tertiary educational contexts provide space, specific instruction, or motivations for collaboration (Rowe, 2020). We suggest that one mechanism for continuing professional learning and development (CPLD) is available within the Open Education for a Better World (OE4BW) project landscape. Building capacity can occur through participation in intercultural collaboration and conversation (Nascimbeni, 2020) and by shifting CPLD into diverse online mentoring communities such as OE4BW.

In this chapter, we share how our CPLD was shaped by participation in the OE4BW global mentoring program. This open and collaborative mentoring experience impacted our self-efficacy (Bandura, 1993, 2012) as tertiary educators. The purpose of this mentoring experience was the design and delivery of an online course to introduce instructional design theories and principles to educators in India, aiming to improve awareness of online teaching while integrating and using open educational resources (OERs). This project was developed by the mentee in order to address a problem, in that few educators in faculties of education in India had awareness of online instruction or the use of open educational resources (OER).

First we reveal details of the OE4BW international online mentoring program that was developed to unlock the potential of open education in achieving the United Nations sustainable development goals (Urbančič et al., 2019). Second, we explore literature in the area of CPLD and cross-cultural mentoring as it relates to OER and open educational practices (OEPr), and perceived self-efficacy (SE). Third, we apply Nerantzi's (2018) cross-boundary open learning model to frame our cross-cultural mentoring experiences. Finally, we provide insights into cross-cultural mentoring as a form of CPLD and the impact on our online teaching practice.

1.1 Open Education for a Better World

OE4BW (https://oe4bw.org/) is a free, international, online, mentoring program established in 2017 to expand the potential of open education by shifting toward inclusive knowledge societies as outlined in the *Ljubljana OER Action Plan* (UNESCO, 2017). Inclusive knowledge societies, one of the United Nations Educational, Scientific and Cultural Organisation (UNESCO) key objectives, involve globally connected and empowered people(s) in transforming their world through the creation, preservation, dissemination, and utilisation of information that sustains human and economic development (Souter, 2010). Core features of knowledge societies include free and open access to information and knowledge, freedom of expression, privacy, and ethics, grounded in a global, sustainable, Internet framework (UNESCO, 2015).

The OE4BW mentoring program is designed with a cross-cultural, collaborative framework (Urbančič et al., 2019) that involves a sustained, intentional, and reciprocal relationship where participants share perspectives and mentoring experiences (Crutcher, 2014). Networking within OE4BW was integrated in 2018 to support the growing numbers of mentoring teams (Urbančič et al., 2019). Mentoring within

OE4BW is based on dyadic relationships, supported by regional geographic hubs. This is reflective of boundary-less mentoring as suggested by Starr-Glass (2020) whereby participants experience an open, fluid, and diverse environment within a transitory, networked organisation. The OE4BW mentoring ecosphere re-envisions how mentoring can occur openly in today's global and culturally diverse learning arenas. We suggest the OE4BW mentoring design can enhance how CPLD occurs in tertiary education.

1.2 CPLD and Cross-Cultural Mentoring

CPLD for instructors of online learning has become a primary issue for tertiary educational contexts due to the rapid pivot to online instruction resulting from the global COVID-19 pandemic. Saroyan & Trigwell (2015) outline factors that positively impact CPLD such as reflection, small-scale and voluntary participation, situated learning to facilitate transfer, and learning within communities of practice. Many of these CPLD features are evident in cross-cultural mentoring experiences within OE4BW projects (DeWaard & Chavhan, 2020b). For our OE4BW mentoring experience, our learning was focused on developing OER for online learning modules for educators in India. This project began with an application of a proposed course design, submitted to the OE4BW organisation (see Fig. 1). This was followed by the matching process of the mentor and mentee and relationship building. The design and development of the open online course for teacher educators in India was the focus of this mentoring project and occurred from Feb to June. The course was delivered and deployed in June, followed by a formal presentation by the mentee in July in Slovenia. Engagement with OEPr and online teaching experiences enhanced our CPLD. Traditionally, the mentor provides the scaffolding to develop the mentee's confidence and academic skills. In our project, this occurred through our shared experiences with collaboration within shared files, folders, and documents to track all progress throughout the project. Through ongoing engagement, we continue to transform our online teaching and OEPr through reflections resulting from dialogue about our experiences (DeWaard & Chavhan, 2020b, c).

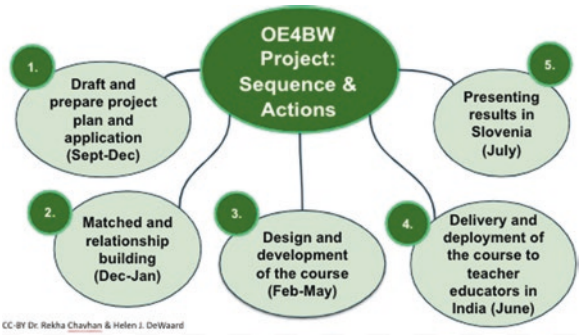

Fig. 1 OE4BW: Project sequence and actions

Mentoring is an approach to learning that connects to cognitive apprenticeship, whereby learning is centred on guided experience and metacognitive processes (Starr-Glass, 2020). Openness in mentoring allows for possible connectivity, accelerating involvement, and potential synergism (Starr-Glass, 2020). This openness within mentoring is not only an internal frame of mind that encourages participation but also an externally focused, structurally open system available to others around the world. The OE4BW project infrastructure has architecturally evolved towards more openness and visibility as a result of the COVID-19 pandemic, with shifting practices evident on their website and the creation of the Eduscope event (*OE4BW*, n.d.), which celebrates the mentoring projects created and completed by educators around the globe.

Mentoring theory suggested that mentoring relationships evolve over time through phases of initiation, cultivation, separation, and redefinition (Daniel et al., 2019). Mentoring can focus on self-efficacy (DiRenzo et al., 2010) or self-regulation (Schunk & Mullen, 2013). By finding common ground, as we did within the creation and implementation of OER, mentors and mentees establish foundations for trusting, caring, and supportive relationships (Crutcher, 2014). The attributes of selflessness, active listening, honesty, nonjudgement, persistence, patience, and comfort with complexity and diversity (Crutcher, 2007) are valuable assets to mentoring and thus are important considerations for the success of OE4BW mentoring experiences. We believe these same attributes apply to tertiary educators' CPLD when sharing in open mentoring experiences such as the OE4BW project.

Technology facilitates new models of mentoring that stretch beyond static boundaries of time and space (Kochan & Pascarelli, 2003). Collaborative tools have gained primacy in mentoring communications (DiRenzo et al., 2010; Loureiro-Koechlin & Allan, 2010) with the advent of a plethora of digital resources beyond email, text messaging, and video chat. Cross-cultural mentoring is impacted by the affordances and constraints of the digital tool or resources selected, the digital skills and fluencies of the mentoring dyad, and the shifting notions of temporality within rhythms of participation (Loureiro-Koechlin & Allan, 2010). Foundational to any successful mentoring relationship are ethical considerations (Johnson, 2017) and developing trust, which can be challenging within cross-cultural mentoring relationships (Crutcher, 2014).

We propose cross-cultural mentoring and openness as an effective strategy to enhance the CPLD of teachers in tertiary education. Our focus, because of our own contexts, is on teacher education, but the experiences we share can inform the practices of cross-disciplinary and cross-cultural CPLD in other tertiary education contexts. Learning to teach online requires individuals and institutions to carefully consider CPLD opportunities that support tertiary educators' current and pressing needs for competency development (Nascimbeni, 2020). In the next section, we examine the concept of self-efficacy as it connects to our CPLD and OE4BW experiences since this supports clarity in Nerantzi's (2018) cross-boundary, collaborative, open learning framework.

1.3 Self-Efficacy

Bandura (1993) suggested that perceived self-efficacy (PSE) is a contributor to an individual's cognitive development and impacts affective, motivational, and selection processes when learning. Like Bandura, we'll refer to PSE as self-efficacy (SE). Bandura (1993) posits that a teacher's SE impacts the learning environments they create, suggesting that SE could also impact the CPLD environments in which tertiary teachers learn (Donohoo, 2018; Hall & Trespalacios, 2019). According to Bandura (2012), the teacher's belief that they can motivate students and stimulate learning is developed in four ways: mastery experiences, social modelling, social persuasion, and choice processes. We share how these SE beliefs relate to personal motivations and decisions about CPLD.

Mastery experiences, described by Bandura (2012) as resilient self-efficacy, requires overcoming challenges through persistent effort and using failure as a learning opportunity. Bandura (1977) hypothesised that "expectations of personal efficacy determine whether coping behaviour will be initiated, how much effort will be expended, and how long it will be sustained in the face of obstacles" (p. 191). Changes in teaching behaviours of tertiary educators can result from the experience of mastery (Bandura, 1977) derived from CPLD within effective mentoring moments.

Bandura (1977) posits *social modelling* as an element of SE when the persistence and success of others raises an individual's beliefs in their capabilities. Observational models and supports such as those provided by a mentor can become catalysts for improving SE. Cross-institutional and cross-culturally connected opportunities for learning can link, stretch, and amplify CPLD (Oddone, 2019; Walker & Forbes, 2018).

Social persuasion occurs when individuals are encouraged to set goals and measure success in personal improvement within "cognitive, motivational, affective, and decisional" actions (Bandura, 2012, p. 13). As suggested by Bandura (1999), this observational learning "conveys rules for generative and innovative behaviour" (p. 25). The application of electronic technologies across social systems allow individuals to extend beyond the boundaries of their current contexts (Bandura, 1999). OE4BW projects, enabled through diverse technologies, support social persuasion within mentoring experiences.

Choice processes impact SE through the range of choices, as well as the decisional results, at key points in an individual's life paths (Bandura, 2012). For example, deciding to become a mentor, deciding to apply to be mentored, seeking CPLD opportunities, and sharing information openly are dependent on an individual's SE. Decisions to pursue CPLD in tertiary contexts can be dependent on an individual's SE.

As we share in the next section of this chapter, SE can impact CPLD. Since SE is an essential component when connecting and collaborating for OE4BW projects, the mentors' and mentees' previous experiences with online technology skills and fluency should be considered. Technological SE is an established concept in

literature research (Barton & Dexter, 2020; Hall & Trespalacios, 2019; Tondeur et al., 2016) and indicates that SE with technology has a positive relationship to how it is used and the perceptions of its ease of use and usefulness within mentoring tasks.

2 CPLD and Cross-Boundary Open Learning

> I am conscious of myself and become myself only while revealing myself for another, through another, and with the help of another … [E]very internal experience ends up on the boundary (Bakhtin, 1981, p. 287).

As Bakhtin suggests and research reveals, boundaries are a place of learning (Akkerman & Bakker, 2011; Nerantzi, 2019; Tur et al., 2020). Learning occurs when a boundary is crossed from unknown to known, or from novice to expert. The challenge in tertiary education, specifically in learning to teach online, is that boundary crossing necessarily occurs from physical to digital spaces, from time bound to timeless teaching, and from localised to globalised possibilities. The opportunity to co-create and collaboratively deliver an online course using OER, through the OE4BW mentoring project, was a boundary-crossing experience (DeWaard & Chavhan, 2020b).

Nerantzi (2019) describes boundary crossing that brings together an unconventional mix of individuals, from different cultures, sectors, professional status, and disciplines and practices. This mirrors the community structures we experienced within the OE4BW mentoring ecosphere. Nerantzi (2019) provides a framework that can inform CPLD within cross-boundary mentoring. This notion of boundary, as it relates to our CPLD experiences in the OE4BW project, bridges physical and virtual locations (place and space), while unbinding time and geographic zones. Nerantzi (2019) describes cross-boundary learning through four categories: modes of participation; time, places, and space; culture and language; and diverse professional contexts.

2.1 Modes of Participation

First, Nerantzi (2019) identifies that participants in her research focused on personal and professional motivations, curiosity, and interest for self-development as an altruistic motivation for engagement. This is also true for our OE4BW mentoring journey since our motivations and curiosity for open education and global connections were the impetus for our engagement. For the mentee, motivations for signing up for OE4BW project work resulted from curiosity initiated through local workshops in the use of different technological tools (e.g. LMS), then gaining experience in course development while learning more about OER. This precipitated her collaboration in a WhatsApp group with others in departmental professional

conversations and engaging with others who provided the spark for the OE4BW project design.

The OE4BW mentoring project provided valuable CPLD as we, mentors and mentees, worked together within a project-based framework, focused on providing an open online course for teacher educators in India. Our SE, specifically our sense of mastery through observational learning, was enhanced as a direct result of the multiple, mixed modes of participation, i.e. using video screen-sharing, creating learning modules within shared documents, and exploring various technological tools such as the MooKIT learning management system (LMS). A sense of mastery in the use of video conferencing technology was gained through our experimental explorations of effective tools. We started by using Skype to meet and talk, but migrated to using Google Meet and Zoom due to affordances within these software tools. This also shifted our practice with the participants in the open course we developed, as well as extending to other work we both do in our own faculties of education. As a result of the pandemic, video chat with screen sharing has become a commonplace practice, often used when discussing professional projects or meeting with students to discuss course work. Our pre-COVID experience ensured we were proficient users prior to the online pivot resulting from the global pandemic, suggesting we had already crossed the boundary to fully online and video-enabled teaching and learning.

2.2 Time, Place, and Space

Second, Nerantzi (2019) reveals that participants in cross-boundary learning courses experienced feelings of disconnection and that learning occurs as a continuum through time, place, and space. While the research shows that feelings of being lonely and isolated within professional learning are commonplace (Nerantzi, 2019), our personal experiences throughout the OE4BW journey did not feel disconnecting or isolating. Throughout the project, we established a routine to meet and talk at a regular time and place – Sunday morning in Canada and evening in India. We used WhatsApp communications due to the ease of connectivity to support a quick, responsive collaboration between mentors and mentees, which became a mechanism for ongoing CPLD and enhancing our SE through social persuasion and choice processes. We did however feel disconnected from other OE4BW project teams since, at that time, there were no pre-established means of collaboration between project teams. This has since changed in the OE4BW project architecture with the initiation of regional hubs (Urbančič et al., 2019) and gathering spaces such as the Eduscope Conference.

2.3 Culture and Language

Third, Nerantzi (2019) suggests that cross-boundary learning for participants should consider culture and language as both a barrier and as a source of enrichment. SE is impacted when learning occurs outside of comfortable language and cultural contexts (Bandura, 2012). One factor that impacts cross-boundary learning within the OE4BW projects is a confidence with shared language (e.g. English). In our case, language and understanding were not barriers since English is a common language for academic use in India, our common backgrounds in teacher education, and our intentionality in focusing time and energy on ensuring understanding through attentive listening and asking probing questions. Confidence and morale were boosted by these OE4BW conversations, care was enacted (DeWaard & Chavhan, 2020a, c), and SE was enhanced, which positively impacted our CPLD. For example, presenting about the OE4BW projects at international conferences such as OER20 (DeWaard & Chavhan, 2020a) and the Eduscope event (DeWaard & Chavhan, 2020b) augmented the mastery experiences for both mentor and mentee. By presenting at these international events, our choice processes (Bandura, 2012) were enhanced due to the emotional response resulting from feelings of success.

OE4BW projects provide opportunities for social modelling and social persuasion (Bandura, 2012) by connecting CPLD for individuals in different countries and cultures. This OE4BW opportunity enriched our experiences, by openly sharing our unique contexts for learning, and stretching us out of our comfort zones. We were motivated to learn about online learning within our geographic contexts, first by getting to know each other, learning about each other's cultures, exploring how things worked in each other's contexts, and also by sharing teaching experiences and practices with online instruction. For example, explaining how online teacher education is structured in India and comparing this to structures in the Canadian context, particularly in terms of online course design and offerings, supported our mutual understanding. This became relevant when issues of access to the LMS for the online course being designed needed to be resolved. Opting for an openly available LMS designed for the Indian context ensured that open access for cross-institutional participation was enabled since this was one of the goals of this OE4BW mentoring project.

2.4 Diverse Professional Contexts

In the fourth category for cross-boundary learning, Nerantzi (2019) identifies initial discomfort in cross-boundary learning within diverse professional contexts. The participants in Nerantzi's (2019) research experienced initial discomfort due to their perception that tertiary education was of a higher status, with perceived hierarchies, resulting in a lower sense of SE for some research participants. When considering cross-cultural mentoring as a means of CPLD, a flattening of hierarchies is

essential. In our specific case, hierarchy was not an issue, as we both work within the field of teacher education. Although degrees of accreditation (e.g. PhD status) could be perceived as a hierarchical barrier, our common vision, values, and backgrounds removed any barriers. Our shared experiences within teacher education, along with shared beliefs in constructivist approaches to teaching and learning, provided common ground for understanding the online course we collaboratively developed.

When considering cross-cultural mentoring as a mechanism for CPLD, mixing and pairing individuals from different geographic regions and different professional backgrounds should be considered. In the OE4BW matching process, this is an established practice (Urbančič et al., 2019). Participant control over the matching process is not essential (Walker & Forbes, 2018). It is the exchange of creative ideas as well as feedback (Walker & Forbes, 2018) that enhance social modelling and social persuasion (Bandura, 2012). For example, the OE4BW Eduscope conference opened opportunities to catalyse CPLD by engaging diverse voices and project plans, many of which focused on the development of online instructional materials that are shared openly and contribute to global repositories of OER.

3 Discussion

Our experiences within the OE4BW mentoring project are one model for tertiary educators (Walker & Forbes, 2018) to enhance CPLD within online learning and teaching. Since research suggests that an instructor's practical experiences in online teaching improved student learning outcomes (Martin, 2017), our cross-cultural mentoring experiences, supported by ongoing and open conversations about the design and development of online teaching, enhanced our teaching practices.

The attributes of boundary crossing as described by Nerantzi (2019) and for quality online teaching (Lenert & Janes, 2017) suggest several factors that were considerations for the OER and OEPr within the online course we collaboratively designed for the OE4BW project. We see communication between learner and instructor as a critical factor in online learning. Through this OE4BW project, we co-designed pre-course, mid-course, and end-of-course surveys, as well as course announcements in multiple media formats. These were new practices for the mentee, resulting in a change in OEPr and conceptions of engagement with learners within online teaching. Through modelling and choice processes, the mentor was able to impart experiences for online course design and delivery to ensure participants felt welcome and became engaged with their instructor, the mentee. Using strategies such as an instructor welcome video, creating an introductory activity on a Padlet, and using shared Google docs for weekly activities were some of the ways that the course design mirrored the mentor/mentee CPLD experiences. What was modelled and used within the mentoring moments and experiences were extended and applied to the online course design, thus enhancing the CPLD of the mentee. Additionally, the process the mentor used to provide ongoing feedback to the

mentee was openly discussed, resulting in the mentee taking a lead role in sharing course assignment feedback. By using and working within collaborative and shared digital spaces, such as using shared files, folders, and documents to capture meeting minutes and assigned tasks, this practice has become the norm for the mentee's online teaching practice.

Mentoring is one model that incorporates many of the features of high-quality CPLD suggested by Osmond-Johnson et al. (2019) and Saroyan and Trigwell (2015), including factors such as active and variable learning, collaborative learning, situated learning, engaging in apprenticeship of teaching and learning, and external supports. By examining our OE4BW cross-cultural mentoring experience, we have illuminated how our CPLD has been enhanced by the SE factors of mastery experiences, social persuasion, social modelling, and choice processes. Cross-cultural mentoring, we believe, provides a unique opportunity to enhance a tertiary educator's individual cognitive development and potentially impact their affective, motivational, and selection processes when learning. This has the potential to influence systemic change in tertiary CPLD.

Mentoring such as that done within OE4BW can do much to "restore in people a sense of efficacy that they can make a difference" (Bandura, 1999, p. 37). Just as Bandura envisioned that "macrosocial applications of socio-cognitive principles via the electronic media illustrate how small collective efforts can have huge impacts on urgent global problems" (Bandura, 1999, p. 37), the OE4BW cross-cultural mentoring projects provide opportunity for CPLD that is positioned to have a positive impact on the global challenges in education as we collectively emerge from the COVID-19 pandemic.

Socially constructed networks of CPLD, as created through the OE4BW mentoring experiences, has the potential to increase the outcomes for educators aiming to openly compare their own teaching with others and collaborate more with colleagues (Perryman & Seal, 2016). Opportunities for tertiary teachers to transact experiences, as shared stories, are powerful catalysts for achieving change (Black, 2015). OE4BW and cross-cultural, cross-boundary mentoring provide time to talk, work through challenges of translating principles of learning into practice, and encourage interactive, cross-cultural, cross-institutional, digital dialogues (Black, 2015; Nascimbeni, 2020; Nerantzi, 2019; Walker & Forbes, 2018).

4 Recommendations

While our focus is on individual CPLD, we are aware of the potential of collective self-efficacy (Donohoo et al., 2018) as a future direction for mentoring projects. Mentoring with OE4BW is currently limited to bringing dyads together to learn within personal experiences through social modelling and social persuasion. The consideration of perceived collective efficacy in future mentoring group dynamics may expand collective action and learning (Bandura, 2000; Donohoo, 2018; Starr-Glass, 2020).

One caution is that there is no one-size-fits-all version of CPLD for tertiary educators, or that mentoring will be the best CPLD solution for everyone. A problematic perception is that cross-boundary learning, the application of OER in education, or cross-culturally connected tertiary educators will become effective solutions to all the world's educational needs. Likewise, perceptions that the global north is a benevolent supplier of expertise and mentors, while the global south provides the context and needs for development (Perryman & Seal, 2016), should be critically examined and explicitly challenged. CPLD should be unambiguous about how reciprocity and collaboration can occur when learning within mentoring relationships. CPLD through mentorship can enhance cross-cultural awareness within a relationship based on a receptive attitude and reciprocal learning. An explicit emphasis on an ethos of caring (DeWaard & Chavhan, 2020a) can avoid re-colonizing learning to the detriment of the SE of mentors and mentees in global south contexts.

The exponential growth of digital technologies, exacerbated by the pivot to online learning resulting from the COVID-19 global pandemic, provides an opportunity to enable people to become familiar and immersed within cyberworlds. This "growing primacy of the symbolic environment and the expanded opportunities it affords people to exercise greater influence in how they communicate, educate themselves, carry out their work, relate to each other, and conduct their business and daily affairs" (Bandura, 2012, p. 12) will continue to impact how CPLD can occur. Our story is one example of how CPLD in open, collaborative, cross-boundary mentoring experiences can become an opportunity for tertiary educators to enhance, support, and sustain SE in online teaching and learning.

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Professional Accreditation Pathways in Higher Education: Enabler or Block to Technology-Enhanced Learning Professional Development?

Thomas Cochrane and Martin Jenkins

Abstract This chapter draws upon a critical analysis of two professional accreditation frameworks and the influence these have had on the development of academic staff digital capabilities for teaching and learning. The Advance HE Fellowship (https://www.advance-he.ac.uk/fellowship) is an internationally recognised higher education accreditation framework with over 140,000 staff recognised globally. The Certified Member of the Association for Learning Technology (CMALT) (https://www.alt.ac.uk/certified-membership) framework is aligned to technology-enhanced learning (TEL) continuing professional learning development (CPLD) standards and is supported in Australasia by the Australasian Society for Computers In Learning In Tertiary Education (ASCILITE) (https://ascilite.org/get-involved/cmalt/).

The chapter discusses the extent to which the broader Advance HE Fellowship perpetuates traditional on-campus approaches to teaching and learning and explores how the use of CMALT may help to increase the impact of TEL CPLD across the wider HE sector. This reflection draws upon research into a closer mapping between CMALT and Advance HE frameworks and how this might encourage higher engagement across CMALT as well as Advance HE.

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1 Introduction

The use of technology has long been seen as a driver for educational change, evidenced through the investment and strategies that have pushed this agenda (Walker et al., 2018). However, the evidence for significant change through the use of technology is limited (Bower, 2019). Walker et al. (2018), drawing on data from the UCISA surveys, highlight how institutions have focused their use of TEL tools on providing a consistent user experience with an eye on performance indicators. As such, institutional drivers for the use of technology have been enterprise and efficiency focused, rather than directed towards driving systematic pedagogic change. While this investment in delivery and assessment tools such as the Learning Management System (LMS), e-assessment, lecture capture and content management platforms may offer flexibility, this is focused at the institutional level rather than on the delivery of learning (Walker et al., 2018).

Academic staff digital literacy skills and knowledge of the use of technologies continue to be a barrier to TEL development (JISC, 2020; Voce et al., 2021). Recent events have highlighted this, with a rapidly emerging body of reflective practice literature from the Covid-19 experience focusing on how higher education has had to pivot to online and blended learning (Crawford et al., 2020; Hodges et al., 2020; Kesendere et al., 2020; Lowenthal et al., 2020; Restian, 2020).

CPLD provision informing academic staff understanding of how to best utilise the affordances of technology (Englund et al., 2017; Walker et al., 2016; 2018) is a key factor in encouraging the adoption of TEL. Conversely a lack of incentives and lack of recognition for career development are seen as barriers to digital and consequently pedagogical change (Walker et al., 2016; 2018). These barriers are important as individual motivators of academic staff to drive change in their practice through TEL, with the later adopters requiring extrinsic motivation.

These factors encapsulate the challenges that the sector has faced in raising the profile of teaching and learning to encourage digital innovation and bring about change that enhances the quality of the student learning experience. Change requires academic staff developing digital fluency, including adopting different pedagogic strategies for online approaches, combined with a supportive culture (Walker et al., 2018).

2 Theoretical Underpinnings

CPLD for teachers has been limited in its theoretical underpinnings (Kennedy, 2014, p.689) with research in this area being fragmented. Kennedy developed a framework for comparing different models of CPLD, originally identifying nine key models and classifying them in relation to how they supported professional autonomy and transformative practice (Kennedy, 2005, p.235) creating a ‘triple lens framework’. Kennedy updated this work in 2014 introducing three categories:

Transmissive, *Malleable* (transitional) and *Transformative*. Kennedy (2014) argued that transformative CPLD models aim to make a positive change or impact on practice through developing professional autonomy and teacher agency. Kennedy notes that the triple-lens framework creates an analytical spectrum for categorising CPLD models and that the spectrum does not imply that all CPLD necessarily need be transformative. Figure 1 maps the three categories against examples of models of CPLD, reflecting the progression to greater autonomy and agency.

Kennedy also proposed a framework for analysing CPLD policies in relation to their perspectives towards professionalism: from a managerial focus upon compliance and uniformity, to a developmental focus that seeks to positively impact practice and agency through collaboration, openness and a commitment to social justice (Fig. 2).

When applying Kennedy's three lenses framework to TEL-specific CPLD, there is a direct mapping to the SAMR (Substitution, Augmentation, Modification, Redefinition) educational technology adoption framework (Puentedura, 2006). While the SAMR framework has been criticised for oversimplifying the complexities of the use of technology in teaching and learning and being technocentric (Hamilton et al., 2016), it does provide a basis for discussion and critique of different approaches to technology adoption in teaching and learning within a balanced instructional design approach (Bates, 2019). For example, Transmissive CPLD models often lead to substitutionary approaches to TEL adoption, while more Malleable CPLD models explore TEL to augment and modify practice and Transformative CPLD models tend to leverage TEL to enable a redefinition of teaching and learning practice and possibilities around teacher and learner agency and building self-determined capabilities. Desimone's CPLD model (2009) is an

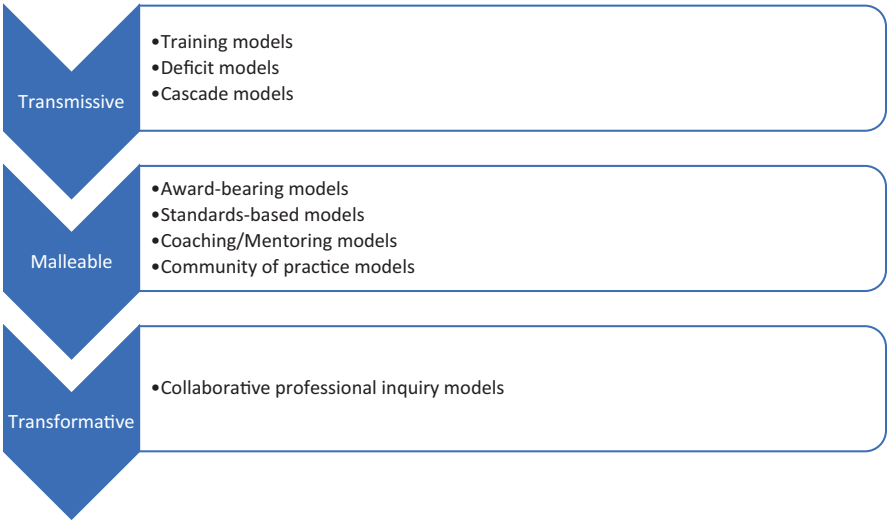

Fig. 1 CPLD models with increasing capacity for professional autonomy and teacher agency. (Adapted from Kennedy, 2014)

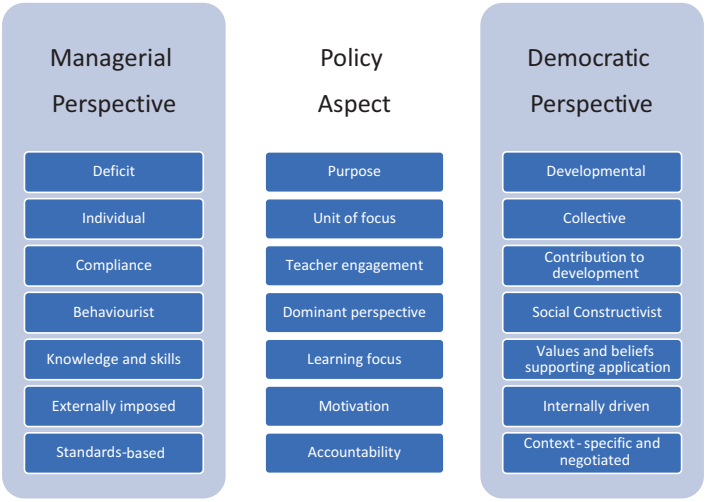

Fig. 2 Analysis of aspects of CPLD policies against perspectives on professionalism. (Adapted from Kennedy, 2014)

example of Kennedy's transformative models, where CPLD focuses upon active learning, coherence, longitudinal experiences and collective participation. Desimone argues that these approaches to CPLD increase teacher knowledge and skills, leading to a change in beliefs and attitudes that impact instruction and ultimately lead to improved student learning.

3 Professionalisation of HE

A critique of CPLD for TEL needs to be undertaken in the wider context of how recognition and support for teaching and learning in HE has developed over the past 30 years. Over this period, there has been a range of activity, scholarly and societal developments that have aimed to give a greater focus to teaching and learning. First, Boyer's (1990) model of scholarship, introducing the idea of Scholarship of Teaching and Learning (SOTL), was developed to give scholarly approaches to teaching and learning equal consideration to research. Societal pressures have also demanded a move to a professionalisation of teaching and learning in higher education. In the UK, this flows from the Dearing Report (The National Committee of Inquiry into Higher Education, 1997). This led to many institutions developing teaching and learning programmes and nationally the creation of a professional framework – the UK Professional Standards Framework (Advance HE, 2011).

The UKPSF is described by Advance HE as a nationally recognised framework for benchmarking success within HE teaching and learning support. The framework acts as a means of establishing expectations by setting standards to help improve

quality and ensure consistency; they describe the *areas of activity*, *core knowledge* and *professional values* expected of someone who is teaching or supporting learning in higher education. As a means of recognising the use of TEL, there is just one Core Knowledge dimension – *K4: The use and value of appropriate learning technologies*.

There has been a basic mapping between the UKPSF and CMALT since 2008 (Association for Learning Technology, 2008), updated following the 2011 relaunch of the UKPSF (Association for Learning Technology, 2013, 2015, 2017; Schmoller, 2011).

The UKPSF and CMALT fall under Kennedy's 'Malleable' category of CPLD models as they allow for flexible accreditation pathways to be mapped against their framework and provide the option for institutional accreditation. Yet as Kennedy noted when relabelling this category, CPLD approaches can be used very differently depending on the purpose. In this context, Kennedy (2014) highlighted the importance of the extent to which CPLD encourages agency: developing and encouraging professional autonomy, but in a way that facilitates desired changes in working practice. Reflective practice and dialogic pathway accreditation frameworks are heavily focused upon underpinning values rather than developing an understanding of learning theory – illustrating a managerial approach to accreditation policies that is highlighted as a key theme in the reporting literature (Spowart et al., 2019, 2020; Spowart & Turner, 2020; Walker et al., 2018).

4 Critique of Accreditation Pathways

4.1 What Is the Evidence of Impact?

The narrative in higher education is that the professionalisation of teaching and learning and introduction of standards and frameworks will be linked to enhancing the quality of the student learning experience. However, research evidence on the impact of accreditation on the quality of teaching is currently lacking. The UKPSF has become internationally recognised with well over 140 k fellows globally. There have been a range of studies investigating the impact of UKPSF accreditation schemes, focusing particularly on direct applications rather than accredited qualifications (Spowart & Turner, 2020). Themes emerging from these studies highlight the different benefits to the institution and the individual.

From an institutional perspective having an accredited scheme provides an explicit indication of its commitment to teaching and learning. Achieving fellowship is also, in the UK context, recognised as an alternative means of evidencing teaching qualifications for official reporting, therefore contributing to meeting institutional key performance indicators. Institutional targets can then be perceived as the driver for staff engagement. This has led to a critique of schemes being potentially seen as box-ticking exercises (Botham, 2018; Shaw, 2018).

Evidence for how engagement impacts the quality of teaching and learning, developing an individual's agency leading to changes in practice, is more limited. From studies investigating the impact of direct routes, it is clear that while there is an impact on individuals it is not evident that this leads to a change in their practice. Advance HE Fellowship does not require evidence of remaining in good standing, compared to CMALT; hence, the sustained nature of all impacts does need investigating. The benefits that are evidenced relate to enhancing individuals' confidence in their practice, by providing a means of external verification and encouraging a more reflective approach to practice. Having undertaken a process of peer review, staff across a range of studies report evidence of enhanced confidence in their own practice; willingness to share ideas and support colleagues; and an openness to new ideas, including engagement with the scholarship of teaching and learning; (Botham, 2018; Shaw, 2018; van der Sluis et al., 2017). The retrospective nature of the direct route can lead to a reframing of existing practice, rather than encouraging a critically reflective approach leading to development, which Shaw (2018) describes as 'domestication'. This is indicative of the rationale for Kennedy re-labelling the middle category in her spectrum of CPLD models as 'Malleable'.

There is only anecdotal evidence in the literature of the impact of CMALT accreditation upon TEL practice (Cochrane & Jenkins, 2019a, b; Cochrane et al., 2015). However, if the engagement with the framework is supported through collective participation, this has been shown to lead to a change in beliefs and attitudes that ultimately impact improved student learning. One such example that has captured examples of evidence for this is the longitudinal development of the 7-week CMALT cMOOC (https://cmaltcmooc.wordpress.com). With six iterations, it has scaffolded an international community of (TEL) practice and facilitated the development of a number of CMALT ePortfolios (https://sotel.nz/?page_id=647), leading to accreditation of participants (https://ascilite.org/get-involved/cmalt/), evidenced through SOTL research (Cochrane et al., 2015; Cochrane & Jenkins, 2019a, b; Cochrane & Narayan, 2017a, b, 2019). Example participant reflections are curated in a YouTube Playlist of CMALT cMOOC webinars and presentations (2017–2019, https://youtube.com/playlist?list=PL2-TasqEeWBthDzp4EugOdUKB-bosvpHL).

The 2018 Association for Learning Technology (ALT) annual survey (Hawksey, 2019) highlighted a growing awareness of CMALT accreditation across the current membership, with 25% of survey respondents holding CMALT accreditation. The survey respondents indicated interest in professionalisation from the CMALT scheme as a top future priority for their career development, aligning with ALT's focus upon developing CMALT accreditation as one of its key strategic priorities.

5 A Digital Focus

5.1 What Evidence Is There That Frameworks Help to Develop Digital Teaching Skills?

Evidence suggests that with the focus of accreditation frameworks on personal reflective practice, rather than on encouraging innovation, this has reinforced delivery approaches. This was highlighted by the predominant response to the 2020 Covid-19 rapid pivot to online teaching and learning (Crawford et al., 2020; Hodges et al., 2020) that largely followed a direct substitution of face-to-face practice via synchronous video conferencing and resultant Zoom fatigue (Lowenthal et al., 2020).

The changes in delivery that were required to meet the restrictions imposed under the Covid-19 pandemic exposed the limitations of existing CPLD to prepare academics for a pivot to online learning. The reality is that there has been a heavy reliance upon the educational technology community to scaffold academics in moving their teaching online, which has highlighted the significant importance of these roles (Voce et al., 2021) and the skills embodied in them that CMALT explicitly recognises. Local management support is also critical (Voce et al., 2021), and this reinforces how the structural framework of the institution impinges on the teachers' possibilities for change and development (Englund et al., 2018).

The 2020 Advance HE review of the impact of accreditation (Spowart et al., 2020) ranked the impact of accreditation on the use of technology in the lowest three areas of impact of the 12 domains surveyed. Unfortunately, the survey was conducted between February and August 2020, and there were no questions addressing the response to COVID-19 and the rapid shift to fully online practice.

6 Reflections/Recommendations

6.1 Encouraging a Developmental Culture

The evidence for the positive impact of accreditation frameworks upon teaching and learning practice, in particular the impact upon student learning outcomes, is varied. The more assertive case for positive outcomes appears to be from what Kennedy (2014) terms a managerial perspective (Hawksey, 2019; Spowart et al., 2020; Spowart & Turner, 2020; Walker et al., 2018). This puts a premium on institutional targets for numbers of accredited academics, whereas the case for impact evidenced in the current literature on improving teaching and learning practice is tangential at best (Botham, 2018; Shaw, 2018; Spowart et al., 2019; van der Sluis et al., 2017). Englund et al. (2018) note that departmental culture plays an important role in mediating institutional targets. If local cultures are less supportive, then this is likely to mean the perception of accreditation frameworks being seen as target driven rather than developmental.

6.2 More Explicit Digital Focus Through Frameworks

There is a significant difference in emphasis between the accreditation pathways in embedding and recognising TEL capabilities. Only K4 in the UKPSF deals with TEL, whereas CMALT accreditation integrates the critical use of TEL across all core areas. The limited digital scope of the UKPSF has led to some institutions introducing local digital literacy frameworks (Newland & Handley, 2016). CMALT accreditation has been associated with the specific role of '*educational technologist*' rather than a discipline-based teaching academic. How then can we recognise a high-level TEL skill set for discipline-based academics? And how can the learning and teaching support role of educational technologists be better supported? We argue these can be better facilitated through an enhanced mapping process between the UKPSF and CMALT, making the relationship between the two explicit. To facilitate this, we have developed a mapping between the different levels of UKPSF and CMALT dimensions (Cochrane & Jenkins, 2019a, b; https://docs.google.com/document/d/1kVe1A8IHKlcEkAKbdS-PqIuTu_q6_m2q1iQHTe3CEZs/edit?usp=sharing).

There is a stronger argument for correlation between a positive impact upon practice and gaining CMALT accreditation. This is due to the difference in requirements of CMALT accreditation: a greater emphasis upon providing evidence of impact in CMALT portfolios, the necessity to update participant portfolios every three years in order to maintain CMALT accreditation and the requirement to be a current member of either the ALT or ASCILITE communities. However, CMALT accreditation has been typically characterised as only relevant to the IT-focused support groups such as educational technologists, rather than appealing to academics who may have embedded a high level of critically reflective TEL into their own practice.

Following discussions in 2015 between ALT and Advance HE (formerly the Higher Education Academy), an initial mapping between CMALT and the UKPSF was undertaken.[1] This is loosely defined and maps CMALT core areas to dimensions of the UKPSF. The approach taken identifies areas of overlap and as such provides high-level guidance for anyone looking to transfer experience from one framework to another. The broad scope of the UKPSF does mean it can be challenging to use as a framework for staff engaged in supporting learning in more specialised or focused roles, such as the use of learning technologies. The UKPSF does not convey the richness of TEL work compared with frameworks such as CMALT. Given that the UKPSF is internationally recognised, there is value in encouraging mapping across these frameworks – to support staff who have done CMALT to get Advance HE fellowship, but also to help those undertaking fellowship to identify what skills, knowledge and values from working with TEL can be utilised.

[1] https://docs.google.com/document/d/1vmeo7bGhAQRCs7ylt3JN0J1GVYJvpOdnop9LyB64Ui4/edit

Making this interrelationship explicit would help fulfil the early expectation that evidence for one scheme would be relevant for the other. The mapping we propose has a more practical focus. Rather than mapping CMALT core areas directly against the dimensions, the approach tags examples of activities by dimensions of the UKPSF and maps these activities against the CMALT core areas. As such, it will help those who have either CMALT or Advance HE fellowship to map against the other framework. Importantly the digital focus of the mapping also highlights how digital teaching and learning practices can be used across the UKPSF and are not just limited to *K4: The use and value of appropriate learning technologies.*

As a comparison, the ATLAS framework,[2] developed in Ireland (National Forum for the Enhancement of Teaching and Learning in Higher Education, 2015), has one of its five domains focused specifically on digital: Personal and Professional Digital Capacity in Teaching and Learning. This provides a balance between the limited scope given to digital capabilities in the UKPSF and the almost exclusive attention to digital capabilities of the CMALT accreditation framework. The evaluation of the implementation of the ATLAS framework by Donnelly and Maguire (2018) highlights its value, including encouraging the use of technologies.

In summary, we argue that applying Kennedy's triple-lens framework to TEL adoption illustrates that Transmissive CPLD models often lead to substitutionary approaches to TEL adoption. Malleable CPLD models, including accreditation pathways, should explore TEL to augment and modify practice. Transformative CPLD models tend to leverage TEL to enable a redefinition of teaching and learning practice and the possibilities around teacher and learner agency and building self-determined capabilities. The current reliance of institutions upon accreditation pathways as a proxy for developmental TEL CPLD has not evidenced a transformation of teacher agency or digital capability building. The importance of integrating TEL capability building and teacher agency has become a key concern for HE institutions following the required responses to maintaining teaching and learning during the Covid-19 pandemic; this needs to be more evident in accreditation pathways.

7 Conclusion

The extent to which CPLD develops agency is key to assessing impact; action must follow on from the developmental activity for there to be a change in practice (Kennedy, 2014: p693). Research shows that the impact of engagement with an accreditation pathway is influenced by the nature of the scheme and the way that it is implemented: for the UKPSF, where institutional requirements are dominant. As such, while encouraging greater confidence and reflection, accreditation schemes can be seen more as mechanisms for institutions to demonstrate a commitment to teaching and learning and meet key performance indicators.

[2] https://hub.teachingandlearning.ie/resource/national-professional-development-framework-for-all-staff-who-teach-in-higher-education/

How can CPLD in the form of professional accreditation make a positive change to practice that leads to improved teaching and learning outcomes, and in the age of COVID-19 leads to the capability to redefine the possibilities of online or blended learning? There is a need for a transformative CPLD that places an emphasis on changing practice rather than reflecting existing practice. CMALT, through the use of a portfolio of practice, an expectation of active collaboration within the TEL community and a requirement to keep the portfolio of practice current, provides such a focus. A cross-mapping of CMALT and UKPSF standards will potentially help promote the use of evidence between the different accreditation schemes, thus encouraging greater recognition of TEL in the UKPSF, for example. Ultimately, however, there is a need for both a wider recognition of pathways such as CMALT and evidence to be more focused on agency and TEL capability building.

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Part II
Institutional CPLD

Emergency Designs: Lessons for the Rapid Implementation of Online Teaching

Lawrence May and Jamie Denton

Abstract Higher education's rapid shift to online teaching during the 2019 novel coronavirus (COVID-19) pandemic raises questions about the suitability of conventional learning design models and the Continuous Professional Learning and Development (CPLD) approaches used to support these during times of crisis. We explore, through an autoethnographic inquiry into one institution's response to COVID-19 campus closures, the utility of the Analysis, Design, Development, Implementation, and Evaluation (ADDIE) model of course (re)design (Dick et al., The systematic design of instruction, 6th edn. Allyn & Bacon, Boston, 2005) and crisis-specific training and support initiatives in preparing for Emergency Remote Teaching (ERT) (Hodges et al., The difference between emergency remote teaching and online learning. EDUCAUSE Review, 2020). We illustrate the pragmatic characteristics of learning design in such crisis-specific contexts, propose a version of ADDIE for Emergencies, and make recommendations for associated CPLD approaches to implementing this adapted version.

1 Introduction

While emergencies that render physical campuses of higher education institutions inaccessible are rare, the global COVID-19 pandemic illustrated the importance of responding rapidly and effectively to such situations. Throughout 2020, the operations of New Zealand's higher education institutions were severely impacted, with nationwide 'lockdowns' closing educational facilities – a disruption shared by an estimated 90.1% of global learners (UNESCO, 2020). Our study was conducted at the University of Auckland, New Zealand's largest and highest-ranked university.

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Given the institution's wide breadth of academic disciplines and study offerings, we consider this case study likely to be both informative and transferable to a wide range of institutions and university contexts. This study's data were generated from two perspectives within the institution. The first is from a member of the academic teaching staff, with an additional administrative leadership role related to curriculum development. The second is from a learning design professional located in a learning and teaching support team within the institution's central administrative structure. To promote purposeful and considered online learning and teaching design as part of enhanced individual and institutional responses to emergency contexts, we propose an adaptation of ADDIE for use during rapid transitions to ERT and outline appropriate CPLD approaches for sustaining this adapted version of ADDIE.

2 ADDIE Model

While numerous frameworks exist to guide learning design, the ADDIE model remains ubiquitous in higher education (Abernathy, 2019; Dunn & Pinkoson, 2020; Nicols Hess & Greer, 2016; Soto, 2013) and is credited with helping implement learner-centred educational approaches (Peterson, 2003). In our study site, the ADDIE model is well established for guiding curriculum (re)development for online/blended learning and, as such, forms the basis of our study and proposed approach to ERT preparation.

The ADDIE model consists of five phases, which may, at times, overlap with one another:

1. *Analysis* of curriculum and content, learners' needs and expectations, and the learning situation's context (Abernathy, 2019; Durak & Ataizi, 2016; Shelton & Saltsman, 2006)
2. *Design* of objectives, teaching and learning approaches, instructional strategies, the extent of peer-to-peer and peer-to-teacher interaction, and types of media involved in the delivery of the objectives (Abernathy, 2019; Allen, 2006; Branch, 2009)
3. *Development* of the instructional 'product', conducting internal reviews, and the correction of any identified deficiencies in these materials (Abernathy, 2019; Allen, 2006)
4. *Implementation* of the instructional materials in the learning situation, which involves the use of the teaching staff's discipline-specific expertise and pedagogical practice(s) to provide context to the learning, engage the learners, and facilitate effective learning (Abernathy, 2019)
5. *Evaluation* of the extent to which the 'product' met its desired outcomes and intended audience's needs (Abernathy, 2019; Allen, 2006; Branch, 2009; Shelton & Saltsman, 2006)

3 Methodology

We adopt an autoethnographic methodology (Anderson, 2006) where the authors have complete member researcher status and demonstrate analytic reflexivity by utilising personal experiences as part of our discussion. Our approach is within the paradigm of quick-response research (Quarantelli, 2003), which works to understand the everyday experiences of individuals and communities, during exceptional events, from their own perspective (Michaels, 2003). Quick-response research, which has been used by other scholars in crisis contexts, also helps to accommodate the pressure researchers may find themselves under when collecting data in unanticipated and rapidly changing situations and encourages unconventional data sources (including observations, meetings, social media postings, and websites) (Mackey et al., 2012; Michaels, 2003). Our data capturing the unfolding pandemic crisis consists of field journals and archived email artefacts composed by the authors during this time. This data was analysed to identify themes and categories and make connections between the authors' journal entries and communicative artefacts. These descriptive accounts portray a sense of being immersed as a participant in a particular case study context (Cohen et al., 2007).

4 Emergency Designs: ADDIE During COVID-19

In this section, we move through the ADDIE model stage-by-stage and reflect on notable aspects of its execution and associated CPLD strategies during the University of Auckland's COVID-19 response. It is apparent in this data that widely adopted frameworks such as ADDIE, predicated on their structured application in a context of adequate resourcing, are not well suited to the relative urgency and disorder of ERT. The pressure of responding at short notice to evolving crises resulted in ad-hoc changes to the ADDIE process and related CPLD initiatives as they were implemented in the field. Based on this experience, we propose a version of ADDIE modified for rapid transitions to ERT.

4.1 Phase 1: Analysis

> Information has been circulated about how to teach the remote students trapped outside NZ. It's a basic, asynchronous version of online learning ('minimum viable product'). I don't have offshore students in my course, but the suggestion is our domestic teaching could well shift if things get worse. So, I've sat down with my course syllabus and planned pieces of asynchronous content I can create quickly, and brainstormed different ways to recreate tutorials online (journal entry, February 25, 2020).

> [The project manager] told us we have over 5,000 international students currently affected by the travel ban. We'll be split into small teams, working directly with faculties' Associate Deans to determine how these students can continue their studies. To do this, they need to be able to meet the same learning objectives, but not necessarily via the same learning activities (journal entry, February 19, 2020).

While this phase is typically informed by the lecturers responsible for a course, the analysis of student needs and learning design strategies was instead assumed by the institution's faculty-and-university-level policy apparatus. The urgency of the transformation required also meant that it was not possible to invite, collect, consider, or analyse stakeholder needs as ADDIE's *Analysis* phase would generally demand. Instead, this institutionally co-opted *Analysis* phase was driven by the need to allow learners outside New Zealand to continue their studies remotely. Our journal notes show a period of needs analysis, interpretation of aggregate student data, classification of existing course syllabi, and scenario planning undertaken by faculty leadership. The aspects of the *Analysis* phase led by the agency of lecturers (rather than the institution) related to their *own* needs and capabilities as teachers in this digital context. With the institution focused on gathering, validating, and disseminating relevant contextual information, teaching staff received no targeted CPLD during this phase. This centralised co-option of the *Analysis* phase has a knock-on impact for students, manifesting, for example, in the scant design and development of teaching and learning approaches to address specific considerations for accessibility and student inclusivity in ERT. Thus, in *ADDIE for Emergencies*, we embrace the de-emphasis of this phase and accept its function is likely to be relocated to other actors (e.g. a university's central administrative body or governmental crisis-response directives).

4.2 Phase 2: Design

> Spent time on the Remote Learning website. I underestimated the time to read and digest and ended up spending half the day taking notes. Material about recording and getting video content online, and practical approaches to establishing teacher presence online, are immediately useful. Not as good as actually consulting with a learning designer and planning it all more deliberately, but enough to get underway preparing my next few weeks' modules (journal entry, March 25, 2020).

Through email communications, workshops, and online self-access learning design resources, the *Design* guidance emerging from the institutional *Analysis* activity was disseminated to teaching staff. Two core strategies were advocated:

1. Recording live, face-to-face sessions to allow after-the-fact access by remote students
2. The inclusion of other appropriate asynchronous course content

While initially conceived as short-term solutions to time-limited travel restrictions, these pragmatic *Design* measures also shaped the subsequent approaches

adopted during the national lockdown period. This advice empowered teaching staff to focus on their curricula's core elements: satisfaction of learning objectives, fundamental concepts, and abbreviated teaching materials. These *Design* principles sought to focus the *Development* phase on considerations achievable within the limited time available. Also, they infused the phase with an emphasis on *design for staff and student well-being*, which is uncommon for ADDIE.

CPLD provided to teaching staff in this phase demonstrated a focus on guiding staff to contextualise institutional advice and, therefore, continue their teaching under these new design and delivery constraints. Such support took the form of workshop sessions across different academic departments, aiming to break down the institution's analyses and translate these into practical teaching approaches. A website resource was also iteratively developed with best practice exemplars of a variety of strategies, including recording video lectures, engaging students in asynchronous discussions, and adapting assessments for online completion, to further highlight the challenges and opportunities provided by ERT.

> This is not a time to attempt to fully recreate your teaching in an online mode, nor a time to strive for 'best practice' in online delivery. Rather, we must focus on pragmatic, quick and simple approaches to online delivery. … These are critical to ensuring that students have a reliable experience, and that we as a community don't push ourselves too hard on complicated digital solutions and risk burnout. For now, keep it simple, prepare to be flexible with your curricula, and seek support where needed (author's email to Faculty staff, March 22, 2020).

A vital characteristic of this ADDIE experience was the separation of learning design decisions into two concurrent threads. One thread worked at a micro-level, where educators remained focused on shaping the learning experience week-to-week. The second, macro-level thread saw the design of teaching and learning shaped and co-opted by external factors beyond the lecturers' control. This phase also became intensely iterative, a characteristic demanded by evolving macro-level circumstances. Almost as quickly as strategies were assembled, they were displaced by new needs and additional, rushed *Analysis* phases. The macro-level *Design* of courses was redefined and carried along by these external drivers, while teaching staff focused their energies on (re)arranging effective learning experiences in the short-term and on their emergent digital pedagogies. The swift transition to ERT compromised the *Design* phase's focus on considering desired future states. This reduced emphasis on designing for optimal future states decreased opportunities for student community development, formative assessment and feedback, and learner-to-learner and learner-to-teacher interaction. However, the diminished focus on this phase's intended foresight and planning did provide teaching staff and their learning design colleagues with increased time to develop and implement curricula. This is a re-arrangement of ADDIE's traditional internal resourcing that we encourage because the *Development* and *Implementation* phases, as we discuss next, take on a newfound importance in emergency settings.

4.3 Phase 3: Development and Phase 4: Implementation

ADDIE's *Development* and *Implementation* phases are intended to be distinct, with course materials completed, quality-assured, and refined before implementation. However, in our study's context, the typical course (re)development collapsed into an unfamiliar, high-pressure timeframe. Online learning materials were required immediately and would continue to be needed for an unknown number of weeks as the semester unfolded. As such, we observed these two phases running concurrently rather than consecutively. Educators were placed in the unenviable position of developing materials for almost immediate release to students.

> Our support teams have been guided away from assisting with too much of the learning and teaching, and get ahead on designing assessments, especially final exams. My work usually follows a project right through from conceptualisation to putting it in front of the learners and then addressing implementation issues by iterating the design, so it feels weird to be stepping away from the lecturers during the development of their learning materials (journal entry, April 3, 2020).

Beyond the distortion of ADDIE's temporal characteristics, the very nature of the learning design process was also heavily impacted. This phase typically involves an expert learning designer working with lecturers to develop learning and teaching materials, while the *Implementation* phase centres on the lecturers' facilitation of learning with their students (Abernathy, 2019; Allen, 2006; Branch, 2009). In the experiences recorded in our data, the institutional learning design resource was stretched far beyond capacity during ERT. It could not be deployed in the focused ways it usually would, as part of carefully planned curriculum development projects. Isolated from traditional learning design support, teaching staff were required to absorb much of the learning design function themselves and also to negotiate the production of learning materials so that the transition to *Implementation* could occur quickly. This meant that engagement with learning design not only involved a significant learning curve for staff but was also an unsustainable form of skills development – a point we pick up on later in this chapter by outlining the need for preparatory CPLD for staff in the practice of learning design. Upon reaching the end of an *Implementation* phase, ongoing lockdown conditions then necessitated an almost instant return to the *Development* phase for the next learning materials.

> Interaction: a rough rule of thumb is to interact with students for an amount of time approximate to the time you would spend doing so face-to-face. E.g., if you had a two-hour workshop, you might aim to recreate two hours of interaction online. This could be in the form of
>
> - Replying selectively to discussion forum posts
> - Formative feedback on student activities
> - Zoom 'drop-in' office hour sessions (author's email to Faculty staff, March 24, 2020).

ADDIE's typical learning designer input took on a more passive and ancillary role in this study site. In the *Development* phase, teaching staff were supported through large-scale workshops and self-access help resources, created by the central learning design team, and email communications by faculty leadership. Such

support was high-level, generic advice that could not account for the intricacies of particular student cohorts, teaching philosophies, or discipline-specific learning approaches. In addition, learning designers provided limited, on-demand advice through a series of video-conferencing 'drop-in' sessions. Our research journals indicate that common discussion points in these sessions included recording video lectures, best practices for engaging students in asynchronous discussions, and online modes of assessments.

Teaching staff were confronted with the need to quickly and reactively develop engaging and responsive pedagogies at the 'coalface,' which led to emergent enhancements to the typical expectations of ADDIE's process. As teaching staff developed online course materials one module at a time, *Development* and *Implementation* together evolved into a recursive and repetitive sub-process of ADDIE proper. In this repeating cycle-within-a-cycle, the implementation of small curriculum elements leads to new directions for developing the next, and significant shifts in teaching and learning strategies can emerge in organic ways. The benefits of rolling developmental processes include exposing deficiencies and highlighting unanticipated opportunities in the learning experiences (Allen & Sites, 2012; Shelton & Saltsman, 2006). In *ADDIE for Emergencies*, we enthusiastically take up the emergent and generative possibilities of learning design on-the-fly, as this is a crucial strength in the experience of rapid production and delivery of ERT we have observed.

4.4 Phase 5: Evaluation

> Hopefully the experience has provided opportunities for some lecturers to see some of the benefits of emergency remote teaching, and maybe see the potential that more carefully considered and designed online learning may have for their future practice. But I also wonder how many will just write off the experience and return only to face-to-face methods (journal entry, June 3, 2020).

New Zealand moved out of lockdown in May 2020, and eventually higher education campuses were able to reopen. This shift coincided with the final examination period at our study site, a natural point for ADDIE's *Evaluation* phase. This was the most severely impacted of ADDIE's phases, being largely divorced from the individual curriculum design efforts of teaching staff. *Evaluation* consisted of the combination of high-level, aggregate data-gathering by the institution and *ad hoc*, inconsistent evaluation by individual teaching staff. Crucially, where ADDIE conceives of a collaborative process between learning design experts and lecturers, the drift away from team-based efforts that began in our experiences of the *Development* and *Implementation* phases was cemented during *Evaluation*. Circumstances required teaching staff to take on the work of radical curriculum (re)design much more directly than the institution's learning design ecosystem would demand in normal circumstances. Challenges of scale, similar to those that limited direct learning design support, meant that teaching staff were not fully supported to consider

connections between their ERT experiences and their future design of curricula. However, in the time since our data was gathered in 2020, the institution has engaged in the development of flexible and online learning strategies with a view to extending and strengthening the provision of online learning opportunities for students. These initiatives have drawn, among other things, on retrospective reflections drawn from staff experiences teaching in the ERT mode in 2020.

The ERT experience of the early months of the COVID-19 pandemic was often characterised as an anomalous, one-off occurrence (an assumption dispelled repeatedly as the pandemic continued). As a result, we observed a tendency among teaching staff to engage minimally with the typical expectations of ADDIE's Evaluation phase. In *ADDIE for Emergencies*, functions of the *Evaluation* phase should be incorporated into the tight loop of the *Development* and *Implementation* sub-process identified in the previous section. While implementing curriculum elements, teaching staff should elicit and interpret evaluative information to aid in the development of the next set of ERT learning materials. We further suggest that in *ADDIE for Emergencies*, the conventional *Evaluation* phase is scaled back, with staff wellbeing a significant consideration. The development and delivery of ERT is a demanding and time-pressured undertaking for teaching staff and their learning design colleagues. Re-sizing and relocating ADDIE's expectations of *Evaluation* creates necessary breathing room for educators.

5 An ADDIE for Emergencies

In keeping with our findings, *ADDIE for Emergencies* acknowledges and embraces the relocation of particular phases of the traditional framework to new temporal positions, or to be driven by different actors. This streamlined process reduces demands on the scarce time-resources of academic staff 'in the moment', with some of the needs offset by a longer-term supporting infrastructure of ongoing CPLD (Fig. 1).

5.1 Supporting Emergency Learning Design

Addressing the University of Canterbury's response to the 2010 and 2011 Christchurch, New Zealand, earthquakes, Mackey et al. (2011) make recommendations for a type of survival kit for academic staff. This conceptual kit contains prompts for individuals and institutions to consider aspects of their crisis-preparedness, including the capacity to independently implement online learning strategies within short timeframes, and the professional development required to ensure that academic staff have the pedagogical understanding to teach in such a mode (Mackey et al., 2011). The COVID-19 pandemic demonstrated the value of such preparations, especially highlighting the responsibility of institutions to

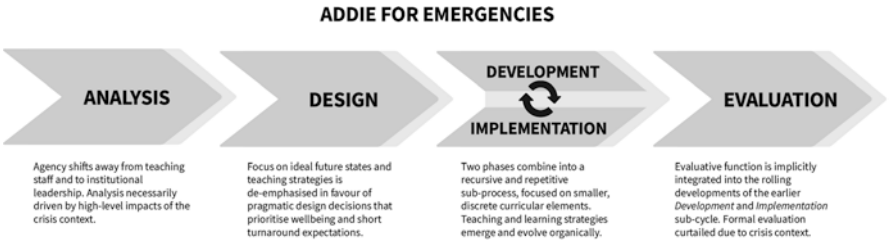

Fig. 1 The *ADDIE for Emergencies* process, with key differences from the original model summarised

provide comprehensive CPLD related to emergency teaching. The provision of CPLD for staff that supports flexibility, resilience, and foundational online learning knowledge is fundamental to effective learning design during crises. As such, we suggest the following approaches as part of developing both a culture and infrastructure of preparedness for rapid shifts to ERT:

- As educators may have limited experience with online learning and teaching, shifting into such delivery modes involves risk-taking and reconceptualising individual learning and teaching beliefs (Gregory & Salmon, 2013; McQuiggan, 2012). Therefore, ERT-related CPLD programmes must educate academic staff regarding theory and best practices in online learning. CPLD can also facilitate an adoption of evidence-informed frameworks for inclusive and equitable learning design, such as Universal Design for Learning (CAST, 2018). This would particularly account for the drastic reduction of the *Analysis* and *Design* phases for teaching staff.
- CPLD efforts should foster an institutional teaching and learning culture that enables staff to treat their courses as living artefacts, which continue to evolve and can be 'repaired' with the aid of reflection and greater time resource in future teaching cycles. In particular, this would support *ADDIE for Emergencies'* pragmatic acceptance that the crisis-bound *Design* phase requires a more immediate, shorter-term, and reactive focus and also reinforces the iterative nature of the *Development* and *Implementation* phases.
- CPLD programmes should ensure teachers are continually encouraged to evaluate their online teaching and course design practices (Northcote, 2012), emphasizing student engagement, interaction, and feedback. Importantly, staff must be prepared to use the data immediately available during periods of crisis (e.g. passive information contained within a learning management system, or fast feedback elicited directly from students). *ADDIE for Emergencies'* integration of evaluative efforts into the *Development* and *Implementation* loop suggests such evaluative judgements need to become a 'second nature' element of teaching practice during ERT.
- CPLD efforts should ensure the development of staff capability in conducting thorough and expansive evaluations of ERT experiences long after the conclusion of periods of crisis teaching. This would complement the re-sized expectations of *Evaluation* we have outlined while still retaining valuable evaluative data.

6 Conclusion

We have explored in this chapter the implementation of ERT during the early period of the COVID-19 pandemic in New Zealand. We have highlighted emergent changes to typical course (re)development processes experienced during this time of crisis and used these to propose a more agile learning design approach to guide future transitions to ERT. *ADDIE for Emergencies* provides academic staff with a fast-paced, pragmatic approach to learning design while under the pressures of a crisis context. It provides, however, only one aspect of the effective delivery of ERT. For successful outcomes – in terms of the quality of learning materials, delivery of learning outcomes, and both staff and student well-being – both a strategic approach to CPLD and the cultivation of responsive teaching and learning cultures are also essential. While the provision of CPLD related to online learning is often discrete (e.g. focused on individual learning design projects), higher education institutions must formalise and expand CPLD that equips academic staff to respond to the many pressures of evolving crises. Together, the adoption of crisis-specific learning design models and comprehensive, strategic CPLD programmes bear the potential to strengthen individual and institutional resilience and agility in emergency contexts.

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Providing Continuous Learning and Professional Development Through a Toolkit Design

Suzy Houston, Colin Milligan, Alison Nimmo, and Alastair Robertson

Abstract We devised a Continuous Professional Learning and Development (CPLD) initiative for all academic staff in our university, many of whom had limited or no experience of online learning and teaching, to enable them to shift their teaching online in response to the restrictions to campus attendance during the first wave of the Covid-19 pandemic in early 2020.

We adapted the ABC Curriculum Design Framework (UCL, 2018) into a 'Toolkit' for online delivery. The Toolkit was aimed at harnessing the features of the ABC Framework identified by its authors (Young & Perović, 2016) via work by JISC, (2012) as appealing to busy academics (rapid and intensive) and as effective for online learning design (robust theoretical underpinning, graphical representations of course designs). Uptake of the CPLD was high, and initial feedback was positive. A year later, we conducted a small-scale qualitative study exploring staff perspectives on the CPLD and their teaching practice. We found some positive benefits of the initiative, but also some less successful outcomes. Our findings show the limitation of metrics-based evaluations of academic development (Bamber, 2013; Bamber & Stefani, 2016), and we present some practical ideas for enhancing the Toolkit.

1 Introduction/Background

Glasgow Caledonian University is a post-1992 institution with its main campus in Glasgow City Centre. It contains three academic schools, each of which has a strong background in professional disciplines.

When the global coronavirus pandemic first began to impact UK universities, it was evident our campus would be unavailable for an unpredictable time. Like many

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other Higher Education Institutions we looked to our Virtual Learning Environment (VLE) to provide a continued learning experience. We devised a Continuing Professional Learning and Development (CPLD) initiative to augment staff pedagogical and digital capabilities at scale in preparation for teaching fully online. In doing so, we aimed to minimise disruption to teaching and learning while increasing staff capabilities in online teaching.

In March 2020, our institution employed around 780 academic staff who, pre-Covid, varied considerably in their levels of expertise in online pedagogy: from staff who already had experience of teaching and learning online, to those whose involvement had been minimal before that point. We had recently completed our annual survey of staff digital capabilities, and although the response rate was low (n = 138), the data provided a useful snapshot of staff digital capabilities immediately before the pandemic. Respondents were nearly evenly split between those who felt confident in the use of digital technologies and those who considered themselves in need of some or lots of further development.

Previous CPLD initiatives related to online pedagogy were fairly small-scale, and it would be reasonable to represent pre-pandemic teaching practice in the university as variable, with many staff using the VLE as a document repository and class noticeboard, a commonplace approach to using VLEs in higher education according to O'Rourke et al. (2015) to supplement on-campus learning. At the other end of the scale, other staff were using the VLE to provide an engaging and active online learning experience. Only a relatively small number of online (distance) programmes were on offer.

This provided a challenging starting place for designing a CPLD initiative for online teaching. Early conversations with faculty leads suggested the academic schools favoured impactful, practical solutions over slower burning theoretical learning, prompting us to consider in depth both the content and the format of the CPLD initiative. Constrained by time, we decided to adapt an existing, successful framework for learning design, aiming for an approach that was suitable for even the most novice academics to develop knowledge and understanding of good online pedagogy.

2 ABC Learning Design

The ABC Curriculum Design Framework (UCL, 2018) developed by Nataša Perović and Clive Young builds upon Laurillard's (2012) Learning Types theory, underpinned by her Conversational Framework (Laurillard, 2002) and the University of Ulster's (2012) Viewpoints project storyboarding approach, to enable rapid or 'sprint' learning design that appeals to busy, 'time-pressured' academics (Young & Perović, 2016, p. 390). The method is described by the authors as 'lightweight and streamlined' (Young & Perović, 2016, p. 391), combining several of the successful methods identified in the JISC Institutional Approaches to Curriculum Design Programme (JISC, 2012), i.e. short, intensive workshop-style delivery where staff can come together to

discuss and collaboratively 'design' courses using some form of graphical representation, for example, a storyboard, road map and/or timeline (Young & Perović, 2016, p. 391; Beetham, 2014, p. 5). The Viewpoints method of storyboarding adapted for ABC was centred around a paper-based storyboard and cards to guide discussion, enabling sequencing of activities on a flexible course timeline.

Storyboarding requires, as a bare minimum, a set of course intended learning outcomes. From here, participants work to build their courses in layers: deciding upon the overarching timeline and unit of learning (e.g. blocked into weeks, topics and/or themes); then agreeing on a suitable pattern of learning types within each unit; next making decisions about the most suitable means and blend of delivery; and then looking for opportunities for formative and summative assessment (Young & Perović, 2016, pp. 392–393). An explicit design process mapped out sequentially in this way, whilst arguably implicit in the design process for in-person teaching amongst experienced practitioners (Moallem,1998), is arguably essential when designing online learning (Tennyson & Schott, 2010), particularly where participants lack experience.

The ABC approach was highly appealing. The method was already well received across the sector. Moreover, it was the 'built in' nature of robust theory in online pedagogy from Laurillard's work (2002, 2012) and a simple and engaging design process implicitly underpinned by the steps required to enable constructive alignment (Biggs, 1996) that offered sufficient scaffolding for even the most novice lecturer to create the basis of a good online learning experience.

2.1 Adapting the Framework

Pre-pandemic, the ABC Curriculum Design Framework was supported by a global community of practitioners, many of whom were keen to incorporate it into their support for staff during the shift to online teaching. As 2020 progressed, the online resources for the ABC community began to evolve to incorporate adaptations of the framework by the original authors (Young, 2020), as well as other institutions in the UK and Europe. Because the paper-based materials for the workshops were central, reshaping them for online delivery was the primary challenge of any adaptation. At GCU, we adopted the basis of an early adaptation by the University of Laurea, (2020) that had reconceptualised the paper-based course 'canvas' as a Padlet in the 'shelf' format, embedding the learning types cards and a set of instructions into the Padlet for users to copy and paste as required.

There was a range of other digital tools aside from Padlet, such as Trello or even Excel, that would have fulfilled the storyboard function. Padlet was not a perfect solution by any means. At the time of writing, there are unresolved issues with the accessibility of Padlet, the main issue being there is no way to add an alternative description to images. However, Padlet is very intuitive and simple to use; is very flexible and versatile; and has simple functionality for collaboration and sharing. Our institution had a licence for the platform, and it was already being used well by

some academics for student learning. If staff were motivated to engage with Padlet for curriculum design, we hoped they would go on and apply it for student learning: a kind of CPLD by the back door, so to speak.

2.2 A Toolkit Approach

Extending the 'built-in' design features of the ABC framework, we developed a Toolkit, incorporating resources for online design and delivery in one self-service package. Even when not dealing with a crisis, academic staff have reported deprioritising their own development needs in favour of other essential tasks. Of course, curriculum design is integral to teaching. However, the majority of our academic staff prior to this did not use systematic instructional design processes for developing their curricula, accounted for by Moallem, (1998) who suggests that traditionally, teachers, especially experienced ones, treat the design of teaching and learning as implicit. Therefore, we anticipated CPLD focused on curriculum design may have been judged by academic staff as 'nice to have' but superfluous to their immediate needs.

Since Moallem's (1998) research, blended and online learning has become increasingly prevalent in Higher Education, facilitated via the emergence of Virtual Learning Environments (VLEs) and, more recently, Massive Open Online Courses (MOOCs). Institutions whose academics have been involved in creating content for MOOCs are likely to have had exposure to instructional design approaches (e.g. see Lackner et al., 2015; Warburton & Mor, 2015), thus making the curriculum design process far more explicit than ever before: arguably a concrete design process is highly advantageous to the effectiveness of online courses (Tennyson & Schott, 2010; Beetham & Sharpe, 2013). Our institution had not previously had any notable involvement with MOOC design; moreover, the provision of CPLD in curriculum design was limited and variable across disciplines. The Toolkit was the first attempt to promote systematically to all academic staff the benefits of instructional design by embedding it within a CPLD initiative aimed at building capabilities during a time of unprecedented change. By packaging and communicating the initiative as a practical, developmental toolkit solution rather than traditional 'training', we hoped to increase its perceived value and entice high participation rates in spite of significant workloads. The term 'toolkit' has connotations of practicality, problem-solving and efficiency, which suitably characterise instructional design in general (Moallem, 1998), and was intended to appeal to and reassure staff as they faced the challenge of 'pivoting' to online teaching.

The initiative also provided an opportunity to model best practices in online learning by effectively blending a range of different learning types and digital tools and demonstrating how to balance synchronous and asynchronous learning content. As far as possible, the Toolkit exploited a number of the same digital tools academics would have at their disposal in creating learning activities for their own learners, providing them with a useful end-user perspective. This approach (it was hoped)

would facilitate reflective practice as part of experiential learning (Kolb, 1984) during the design process, especially when making decisions about which digital tools might work well for delivering different 'learning types' (Laurillard, 2012).

The key elements contained in the Toolkit were embedded into a single webpage on an internal SharePoint site and included the following:

1. **An introductory webinar** via Blackboard Collaborate Ultra. The only synchronous aspect of the Toolkit, the webinar was recorded for flexible access: important given the unpredictable impact of the rapid move to remote working for staff.
2. **A printable PDF** supplemented the webinar, foregrounding additional relevant models useful to the process of instructional design, including a reminder of the concept of constructive alignment (Biggs, 1996) and also an introduction and hyperlink to the Universal Design for Learning (UDL) framework (CAST, 2018) to promote the practice of accessible, inclusive design-thinking. The storyboarding activity was illustrated as occupying the initial stages of a bigger, overarching instructional design cycle similar to the cyclical ADDIE instructional design model (Culatta, 2018) with five discrete phases of activity: Plan, Design, Build, Implement and Evaluate. Locating the CPLD activity into a larger process helped staff divide the bigger task of moving teaching online into smaller, more manageable stages.
3. **A Padlet storyboard** (see Figure 1) provided the platform for online learning design. New users were advised to complete 'An introduction to Padlet' CPLD, so they understood the basic features of the tool.
4. **An online discussion forum** provided a way of channelling questions after the webinar as the participants began to put the CPLD into practice.

The cards in the template contain the learning types cards (front and back), some basic instructions about how to use the storyboard, and sections where key module information can be added. The space on the right of the template below is the blank storyboarding space within which users can add activity cards and code them with the relevant learning type/s so they can see the pattern of learning at-a-glance.

It was made clear that the Toolkit was aligned with the early stages of a wider instructional design process. After using the Toolkit to design, the next stage would be to build. So, we also provided clear linkages (e.g. within the Padlet and in the PDF, which contained a table for recording development needs) to further CPLD in the use of digital tools for online delivery.

For example, when virtually 'turning over' learning types cards in the storyboarding process, a number of digital tools were suggested. The card corresponding to collaborative learning had on the back suggestions such as Wiki, Padlet, a discussion forum or a student-led activity in Blackboard Collaborate Ultra. Each suggestion corresponded with a further CPLD opportunity, usually a webinar or self-service resource.

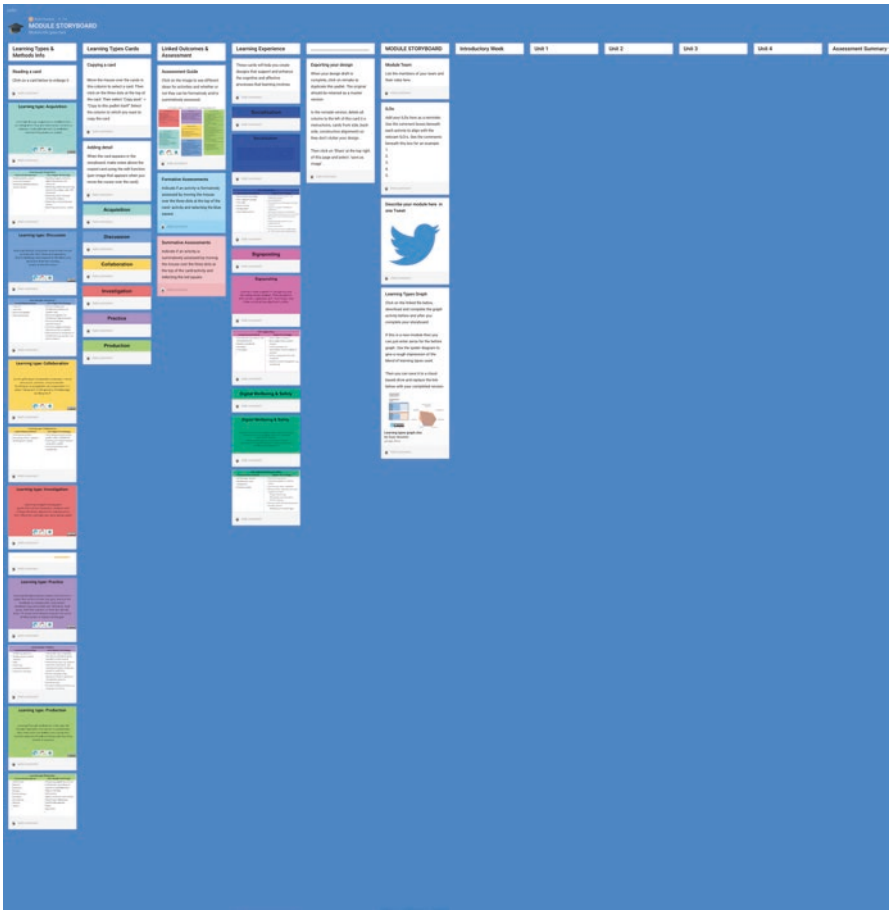

Fig. 1 The GCU Padlet storyboard template

2.3 Evaluation

It is somewhat difficult to pin down the exact figures for attendance because the live webinar was also recorded. However, our broad analytics show that the live version was attended by 463 individuals, and we delivered a team-based session 16 times: attendance much greater than any previous local CPLD initiative by far. Attendance of webinars that supported staff CPLD in the use of various digital tools was also high: with 1575 live attendees in total and many others who accessed the session recordings at a later time.

The relatively high level of attendance described above and some generally positive qualitative feedback from staff via post-webinar evaluations that the workshop was useful to them suggest at least some *indirect* positive impact (i.e. attendance and staff satisfaction) of the CPLD initiative on aspects of teaching practice:

> "I benefited from being able to actively participate in the webinar as this mimics the live classroom experience."
>
> "The Responsive Curriculum Design tool kit was my saving grace when planning out my module and how I was going to deliver the content on-line in a meaningful, professional manner."
>
> "Using the responsive curriculum design template has allowed me to develop my module ensuring I am using all the different learning types within."
>
> "Myself and my team are already using the storyboard/responsive curriculum design feature. This has enabled a level of co-creation."

Following others' (Bamber & Stefani, 2016; Hughes et al., 2016; Winter et al., 2017) acknowledgment of the complexities involved in evaluating academic development initiatives, especially their impact on student learning, an issue described vividly as 'thorny' by Winter et al., (2017) and 'vexed' by Geertsema & van der Rijst (2021), for our preliminary evaluation of the Toolkit we aimed to 'evidence value' (Bamber, 2013) in terms of demonstrable outcomes (i.e. changes in behaviour and practices) rather than outputs (attendance, staff satisfaction) (Bamber & Stefani, 2016).

3 Methodology

We conducted a small-scale qualitative study nearly one year after the CPLD. Qualitative research is criticised for its lack of generalisability, but generalisability was not our goal. We were seeking a detailed, contextualised understanding of the value of the CPLD in different disciplines and so we set out to explore a small number of in-depth participant experiences. Moreover, timing was key. Tick-box evaluations of academic development, usually deployed immediately after the intervention has taken place, may tell us about broad 'satisfaction', but can't reveal resultant changes in behaviour. Winter et al. (2017) point to strong corroboration in the literature that waiting for around six months to evaluate an initiative is key to being able to uncover any changes or impacts to practice. On reflection, a year was possibly slightly too long: at times, some of the participants were no longer able to recall exact details about their experience of the CPLD. However, participants were able to articulate aspects of the short and longer term impact (if any) the CPLD had on their teaching over an extended period of time including any post-course student feedback. They could also show us their completed designs on Padlet.

Our sample consisted of six academic participants in total: two from each of the three academic schools. Participants attended online semi-structured interviews with the academic developer who delivered the original CPLD webinars. Although this posed a potential bias that might cause participants to under-report any negative feedback, this was mitigated by the informal tone of the discussions, assurance of full anonymity and a request for candidness. The interviews lasted around thirty minutes and were recorded using Microsoft Teams, then transcribed and anonymised.

3.1 Analysis

We carried out an inductive thematic analysis of the interview data through a step-by-step approach that included a standard process of reviewing the data for the purpose of coding and then combining these codes into themes, then further refining and defining those themes (Braun & Clarke, 2006).

4 Results

Three broad themes emerged from the analysis, all of which relate to the impact of the CPLD as well as being articulated by participants as generally characterising their experiences of shifting to an online delivery approach.

4.1 Theme 1: Time

Participant accounts of responding to the shift to online delivery and the role of the CPLD in that process were often keenly focused on the concept of time, most usually as a limited resource.

> "I kind of felt we were getting bombarded with all you must use: Collaborate; or you can use Teams; you can use whatever, this is what you must do, and you must record it and you must provide transcripts and all in a short timeframe. It was all a bit nuts. Summer is usually a time to put your feet up … I don't think I have worked so hard or felt under so much pressure as I have ever done."
>
> Participant 3

> "I never actually finished mine. But I started doing mine and I loved doing it. I wanted to share it with students and was going to use it to help them at the start. Anytime I showed it to the team I said, it's not finished but this is what I've got so far and it looked great. So it really was just the time."
>
> Participant 6

Some claimed the timing of the CPLD in the academic session was problematic:

> "I think people needed the workshop at that time, but there was so much happening. Inevitably no-one did their storyboard. The template is great, it's just the timing and it was so much for people."
>
> Participant 2

> "There was an issue with the timing of when we have to give information. So for example, we'd already submitted our module timetables. So that includes the structure, the mode of delivery. We'd done it all as part of contingency planning … you're planning so far in advance it's just too late to do this."

Participant 6

Time also cropped up as a feature of the learning design, where participants reflected upon the timings of their face-to-face lectures and how they would need to be adjusted for an online delivery, supported by the ABC design process:

> "I had a lot of experience but very much of the traditional, you go into the classroom and you do your 50 minute, traditional lecture or your tutorial or whatever. It was showing how to take that resource in terms of the PowerPoints and whatever and break up, you know change the length for online delivery without simply doing it as the same live lecture."

Participant 3

The theme of time was also articulated more positively in relation to the time commitment required to engage with the design process:

> "I feel it was quite self-contained, which I thought was really useful actually because you could actually do it in the time specified. A lot of these things take longer."

Participant 1

Helping students to manage time was also described as being made possible via the storyboarding approach:

> "I used the Toolkit for planning the whole module. And then for each week, I set up an activity timeline used with the students so they could see what they needed to do and that was very useful."

Participant 3

4.2 Theme 2: Knowledge

The concept of identifying and locating the knowledge needed to pivot online was discussed in different ways by the participants in relation to the CPLD. It's important to note the distinction between knowing and understanding here. The former came through strongly, but understanding (i.e. the application of knowledge) did not emerge as a theme. Participants noted gaps in their existing knowledge that they hoped would be filled by the CPLD:

> "I don't know any hints and tips about how to engage students; it's difficult to know how to engage them."

Participant 1

> "I didn't really grasp what are the ways of dealing with really large classes online, its ok for acquisition but what about discussion and collaboration?"

Participant 4

The participants also identified potential sources of important knowledge they felt hadn't been available to them in the CPLD initiative:

> "It's hard online but it would be good to be in the same room as others to do this. Maybe discussion with others may encourage those who were less experienced."

Participant 1

"Would have been good to pair up with other staff who know more about how to do this."

Participant 4

Participants also highlighted where the CPLD managed to build their knowledge:

> "The curriculum design template helped me from the point of view of knowing what technologies are out there, what they're capable of and knowing how to put them together."

Participant 2

> "I was always thinking about the six different learning types and making sure they had a good mix through the module."

Participant 4

4.3 Theme 3: Organisation

The final theme that was prominent in the data was related to the benefits of the CPLD approach for enhancing management and organisation of courses, applying to staff and students. For staff, the benefits were articulated as assisting them in preparing for online delivery:

> "I found it useful in the planning process, very useful in the planning process. And, as I said, then deciding how to chop up the lectures into chunks and organize that. And then, you know, thinking about thinking about the different activities. I found it very useful for that, and just organizing everything on a week to week basis."

Participant 3

Additionally, the advantages of the approach for giving a method of effectively structuring content came through:

> "This year, it's a lot better because even just the layout within it and the different learning activities that have made sure to tick the boxes that are linked better to the outcomes and assessment, that was one key thing I really did."

Participant 4

> "I got feedback last year that everyone loved the content but said they would like the structure of the module to be clearer. And I wasn't really sure how to go about this. I think the curriculum design allowed me to do that really quite coherently."

Participant 6

The direct result of providing the storyboard as a roadmap for the course to students was commented on by the participants as leading to a better student learning experience, and in some cases to positive student evaluations:

> "What this allowed me to do, and it's something the students have fed back positively on, it is allowed me to distinctly create a theme for every week, and there are certain aspects of the curriculum we would focus on."

Participant 2

"In the evaluation questionnaires, one of the things they are focused on that they really like is the structure that has come out as a result of this."

Participant 6

5 Discussion

The thematic analysis provides a more fine-grained, nuanced evaluation of the impact of the CPLD than would be possible using customary post-evaluation surveys, adding further weight to the argument that metrics alone are not a particularly useful or appropriate way to evidence the value of academic development (Bamber, 2013; Bamber & Stefani, 2016). The study data reveal a positive impact on some aspects of the participants' practice, mostly in relation to better and more explicit organisation and management of their courses, which fits with the argument presented above about the benefits of getting academic staff to engage with an explicit design process, i.e. via instructional design frameworks. There is also tentative evidence to suggest, via the accounts of the participants, that this in some measure enhanced the student learning experience by giving learners a much clearer insight into the overall plan for their learning.

The participant accounts point to a tension between an acknowledgment of the strengths of the CPLD approach but claiming a lack of time or inappropriate timeframe in which to adopt it to enhance practice. Despite providing a framework designed specifically as a rapid solution to curriculum design, this was not seen by some staff as offering timeous assistance and was ultimately disregarded.

Finally, we have gained insight into the extent to which the initiative was felt by participants to support the development of their knowledge of aspects of designing and delivering online learning. It appears it was successful in more theoretical aspects of this, but less so in helping participants to know how to apply this knowledge in practice. Clearly articulated was the requirement for peer-based support and access to examples of real practice to help participants gain a more in-depth and practical understanding of online pedagogy.

6 Next Steps

Our plan is to use our findings to directly shape and inform the next iteration of this CPLD initiative. Similar to many universities, due to the ongoing restrictions on campus attendance, we are looking at provision of a portion of our teaching and learning being delivered in a 'hybrid' or 'dual mode' format, i.e. involving simultaneous participation from both in-person and online attendees: this will most certainly require staff to think carefully about their course designs that are currently

delivered in a single mode. Additionally, we wish to continue to strengthen and enhance online learning and teaching activities provided via a single mode of delivery. Via our study findings, we acknowledge the need to deploy the CPLD in such a way that it doesn't conflict with existing processes related to course delivery. Moreover, the Toolkit could be further enhanced by providing a range of pre-designed templates to scaffold good designs and further save staff time by facilitating higher levels of peer-support amongst participants, and now we have some actual examples of this method being successfully implemented by staff, to work towards effective ways of prompting peer sharing of good practice and authentic user experiences.

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Swift Preparation for Online Teaching During the Pandemic: Experience Sharing from Healthcare Teaching in Hong Kong

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Abstract Online education has been developing for many years now across the world, but is not without its challenges. Organizational, personal and attitudinal factors may deter some staff from making the transition to online teaching. When we consider healthcare education, the barriers to the adoption of online methods are specifically related to the nature of the curricula involved. Hands-on practical skills training is one essential component in healthcare education that is not easily addressed by simply going online.

With the impact of the pandemic, teaching staff of our affiliated healthcare programmes at the Hong Kong Polytechnic University faced huge difficulties in redesigning their content for practical teaching in an online mode. Some of them adopted synchronous practical demonstrations, interspersed with discussion activities, while others used various teaching pedagogies to support active learning online. All of our staff aimed to strengthen the foundation of the students' knowledge while supporting them to keep practising their hands-on skills so that they would be able to master practical tasks when face-to-face teaching resumed.

Such a sudden and swift change from face-to-face teaching to an online delivery mode had a great impact on both teaching staff and students, forcing them to step out of their comfort zone to adopt new online learning methods. The change also challenged instructors to explore other teaching approaches and introduce tools specifically for online teaching and learning, adopting the Technology Pedagogical Content Knowledge (TPCK) framework (Mishra & Koehler, 2006) P, Koehler MJ, Teach Coll Rec 108(6):1017–1054. https://doi.org/10.1111/j.1467-9620.2006.00684.x, 2006).

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This chapter offers the opportunity to pause and reflect on the continuous professional learning and development (CPLD) challenges that our healthcare educators faced and how these challenges were addressed, drawing on the lessons learned from the COVID-19 context to support future planning of CPLD provision for our staff.

1 Introduction

Coronavirus 2019 (COVID-19) has imposed a huge impact on the socio-economic, medical and educational aspects of society globally. The prolonged effects of the pandemic created the largest economic slump ever since World War II (Novy & Jury, 2021). In addition to the unavoidable and huge medical expenses that have been incurred, negative consequences have been reported to both physical and mental health like peri-traumatic distresses, too (Asaoka et al., 2020). Higher education is a complex system involving a series of essential components including people, place, physical technology, social technology, personality, wishes and ideas. All of these components have been impacted by COVID-19 (Blankenberger & Williams, 2020).

In Hong Kong, the incidence rate increased dramatically from late January 2020 onwards. With the unknown transmission media, severity of the condition and heavy burden on medical management, all face-to-face (F2F) teaching activities were suspended territory-wide immediately. Under the unknown situation of COVID-19 development, the Hong Kong Polytechnic University swiftly took the decision to adopt online teaching, preferably in a synchronous mode, to replace all F2F teaching activities and provide continual support to students' learning – in this way keeping students actively engaged and motivated in teaching activities. Given the limited preparation time, all teaching staff faced immense pressure in preparing teaching content, adapting to the swift change, and most importantly, they had to overcome all barriers to online education in a short period of time.

Despite the fact that online education has been promoted worldwide for many years now, there are still personal, attitudinal and organizational barriers that deter its implementation within a higher education setting (Panda & Mishra, 2007). Barriers do not just apply to teaching staff, but also to students too. Commonly reported barriers include the limited availability and quality of resources to manage; the need to develop and implement newly developed teaching tools; departmental culture; insufficient time; poor infrastructure such as instructional design skills; lack of technical support; concerns about the loss of ownership of teaching materials; concerns that students may not react or engage well; anxiety about the workload of teaching staff; negative attitudes or reluctance to 'change'; poor motivation and a mismatch in expectations between students and teaching staff; poor communications between teaching staff and students; and the suitability of the discipline to suit online delivery methods (Buchanan et al., 2013; Keengwe et al, 2009; O'Doherty

et al., 2018; Panda & Mishra, 2007; Regmi & Jones, 2020; Sinacori, 2020; Walker et al., 2018). As discussed, the nature of the discipline and associated curricula in healthcare education also hinder its adaptation to online teaching and learning methods. One major barrier is the non-replaceable hands-on-practical skills training. Thus, taking these factors into consideration is necessary when planning online healthcare education.

In this chapter, we share the swift changes that our institution adopted when switching to an online mode of teaching in healthcare education and the challenges that we faced during the implementation phase. Then, we outline how teachers and students responded to the changes to teaching and learning online and the timetabling planning for resuming small-group F2F practical class teaching when the pandemic impact gradually subsided. Most importantly, we share our lessons learned from this experience for planning future continuing professional learning and development for teaching faculty when delivering online education.

2 Preparation and Ongoing Support for the Swift Change of Online Teaching

The key to a successful transition to online teaching relates to how we overcome barriers at personal, attitudinal and organizational levels (Panda & Mishra, 2007; Sinacori, 2020). With the sudden deterioration of health conditions under the pandemic situation, our university decided to move all teaching delivery into an online mode and immediately established basic standards for online teaching. We offered a series of training workshops on instructional designs, e-assessment and invigilation and provided appropriate software to support teaching staff to cope with the urgent transition. Despite having organizational support in place, teaching staff expressed huge anxiety regarding their ability to prepare and adapt to such a sudden change from F2F to online delivery – one month before the start of the new term.

Online education does not simply involve the change of delivery mode from F2F to online delivery methods but involves the thoughtful planning and integration of technological knowledge, pedagogical knowledge and content knowledge, as described in the TPCK model (Mishra & Koehler, 2006). In healthcare programmes, a majority of the core professional subjects require hands-on practical skills training with real-time feedback. Thus, during the planning process to support the teaching of our staff, we aimed not only to address the swift transition to online delivery but also facilitated their professional development in pedagogical design and class planning – taking into consideration the personal and attitudinal factors and the TPCK model, whilst targeting the same intended learning outcomes, minimizing the hindrance to students' learning and their study progression during this abrupt transition.

To better understand the readiness of our teaching staff to deliver online teaching in synchronous and/or asynchronous modes, a needs assessment survey was conducted within our department. A response rate of 83.3% (n = 45) was obtained.

About half (51.1%) of the respondents reported that they were ready to provide synchronous online teaching for lectures/tutorial classes, while the remainder reported that they felt more comfortable using asynchronous pre-recorded lectures. In line with previously reported key barriers to online education (Bolliger & Wasilik, 2009; Panda & Mishra, 2007), our teaching staff commented that their concerns were around a perceived lack of technology skills, unfamiliarity with the required hardware and software that they would be using, resources and unstable Internet networks. Hence, we then swiftly provided technical support as well as offering training sessions on instructional design as part of our professional development provision to address the challenges that they faced, as well as their personal and attitudinal needs during this preparatory phase (i.e. one month prior to the semester commencement). Throughout the semester, we applied the concepts of adult learning methods (Trivett et al., 2009) such as experiential learning, coaching and just-in-time training to accelerate their professional development to support this rapid transition to online teaching.

Regarding technical support, as some teaching staff used a shared office, the department freed up individual rooms so that they could be booked for online teaching. We set up workstations with onsite/offsite technical support to assist with online teaching delivery. In terms of staff development for online teaching, we organized department-led online training seminars about technology enhancing learning tools, pedagogical and instructional designs, combined with staff consultation sessions as well as hybrid sessions of teaching demonstrations during the preparatory phase. Through these sessions, teaching staff who were unfamiliar with designing teaching pedagogies and/or options of available resources or online webpages for engaging students' learning were able to learn from their peers about how to restructure their class plans, while achieving the same intended learning outcomes of the subjects they were teaching, taking into consideration the TPCK framework (Mishra & Koehler, 2006). They were also asked to participate in real online synchronous classes run by the experienced staff to observe how the class was delivered and how students were kept engaged using the tools/webpages/software introduced in the training workshop through real 'hands-on' practice.

3 Challenges Faced by Teaching Staff During the Initial Implementation of Online Teaching

In the initial 2 weeks after the commencement of the online teaching semester, teaching staff in our department were invited to report back on the challenges and difficulties that they had faced during the implementation of the daily synchronous online teaching activities. They were given open-ended questions to reflect on their whole teaching process and were invited to share their views on a voluntary basis (Fig. 1). Through this facilitated self-reflection process, they fed back on the

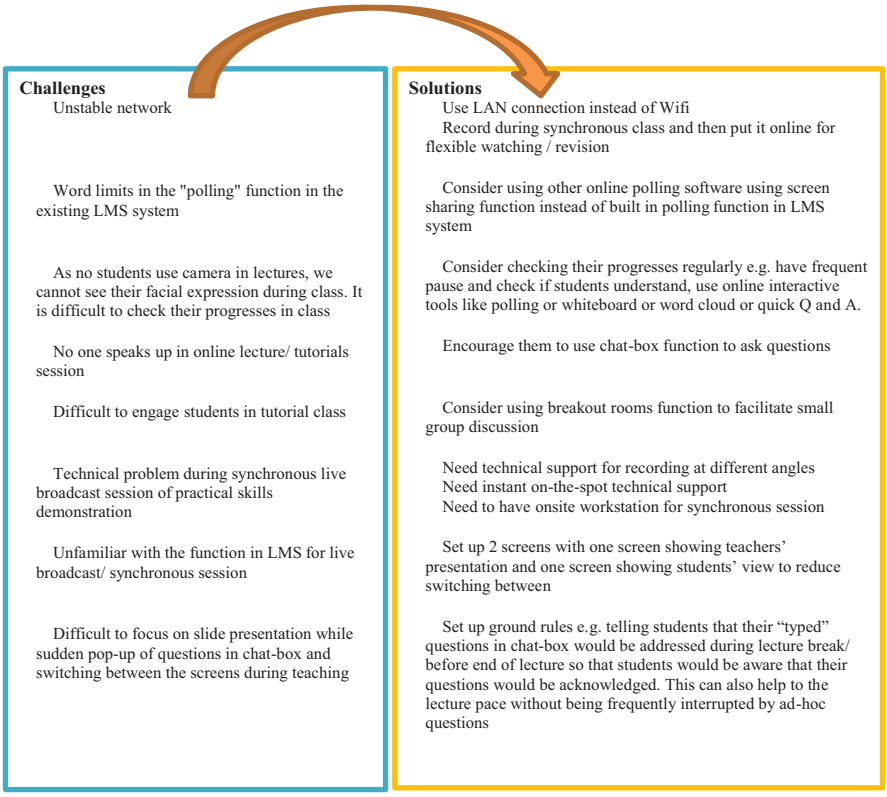

Fig. 1 Challenges and solutions raised in after class reflection by teaching staff. (Note: *LMS* = Learning Management System, *Q and A* = Question and Answer)

challenges faced during class planning and teaching delivery, the corresponding solutions used and tips for improvement. The key points obtained from the feedback were summarized and disseminated as part of an experience-sharing process (Baran & Correia, 2014) as an intensive professional development opportunity, which let inexperienced staff learn from peers – inviting them to consider adopting the suggestions or tips when restructuring their own classes.

Teaching staff commented on both the technical and non-technical aspects of online teaching. Before the pandemic, the majority of the lectures and all the tutorial and practical sessions were delivered in a F2F format. Similar to other UK universities (Walker et al., 2018), our institutional learning management system (LMS) was used by staff for content management, e-assignment submission, text matching (e.g. Turnitin) for similarity checking and the uploading of pre-recorded videos as reference materials. With the onset of the pandemic when the delivery format was swiftly changed from F2F to completely online delivery, most of the teaching staff found

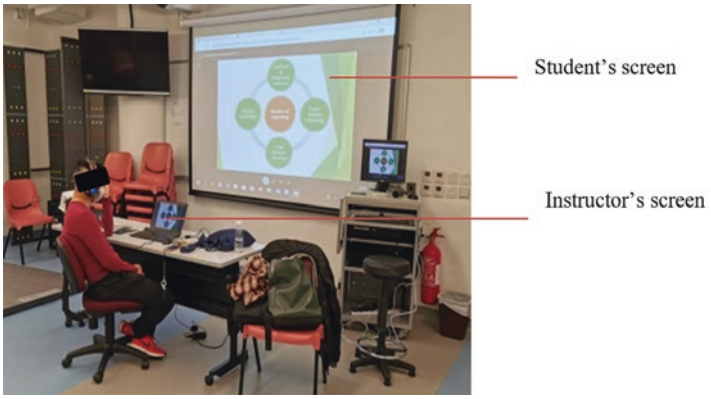

Fig. 2 Onsite equipment set-up (with technical support) for conducting online synchronous lecture/tutorial

themselves in an unfamiliar position in mastering the essential functions and plug-ins in the LMS, which supported their online synchronous teaching. For instance, they were unfamiliar with the use of Blackboard Collaborate Ultra for online synchronous lectures/tutorial classes; plug-in software or other tools such as Panopto; content package set-ups developed by other software; use of built-in functions; and other resources for interactive synchronous in-class activities. For non-technical aspects, some teaching staff commented that they felt more nervous during online teaching when compared to F2F teaching due to a lack of confidence over how to control teaching pace and the class plan. For instance, during F2F classes, teaching staff could see students' facial expressions which they could respond to by adjusting their teaching content and speaking speed, as well as by adding explanations to those abstract concepts. When converting the lectures to an online mode, teaching staff needed to restructure the class plan to make the lecture more interactive and engaging for the students. This further increased their workload substantially, especially for those who were unfamiliar with instructional design and technology.

Figure 2 shows the onsite workstation set-up for teaching staff to deliver online synchronous lectures and tutorial classes. With this set-up, they could see their own presentation screen and their students' viewing screen and could keep track of students' responses/typing in the chat-box. Not only were staff provided with onsite technical support (at the designated workstation) and offsite support (through instant communication using WhatsApp/phone and/or direct control at LMS), but they were also able to receive timely and on-the-spot technical support to ensure smooth and good quality online teaching, even if they were teaching online classes from their own offices or working from home. The departmental and university-led online training seminars for enhancing teaching pedagogies, online assessment and online proctored examinations were continuously delivered to meet the needs of frontline teaching staff throughout the semester.

3.1 Adaptive Changes for Online Teaching

Both synchronous and asynchronous modes of teaching have their pros and cons affecting teaching delivery and students' learning. As for healthcare education, communication skills are important. Encouraged by the peer support they received through experience-sharing sessions, the intensive training provided in the preparatory phase and attending the class delivered by experienced teaching staff who adopted the TPCK model in their own teaching, our staff became more willing and skilful in using synchronous communication tools to deliver lectures, tutorial sessions and practical sessions. This training and support enabled them to incorporate different pedagogies to keep students engaged through direct communication and interaction. The majority of the teaching staff adopted synchronous online lectures, tutorials/real-time practical demonstration, supplemented with asynchronous lectures and learning activities.

(a) Lectures – Synchronous and Asynchronous Mode

Synchronous online lectures were delivered 'live' at a scheduled time and involved interaction between teaching staff and students. In addition, these sessions allowed students to learn at a regular pace without lagging behind. Unlike F2F lectures where teaching staff can observe students' facial expression and responses immediately, it was not possible to see students' faces online or their responses at one time. Thus, when delivering online lectures to a large group of students, the teaching pedagogy was largely didactic. Lessons were delivered on an online synchronous platform that allowed teachers to share their lecture slides on-screen and deliver voice and video over the web. The content delivered was theoretical, and interaction was mostly one-way from teaching staff to students. With the intensive training sessions and peer-sharing sessions on the instructional designs and software demonstration, our teaching staff were provided with the ideas and skills to restructure their class plans. To keep students engaged, teaching staff used the different built-in functions (e.g. polling, MCQ quizzes, breakout rooms for small group in-class assignment and discussion) of the software that they were using (e.g. Blackboard Collaborate Ultra, Zoom, Microsoft Teams) and even incorporated other online interactive tools like Slido and Kahoot in order to encourage students' active online participation. Students' responses in these specifically designed activities provided an alternative way, other than direct F2F communication, of letting teaching staff monitor students' learning progress, allowing them to make appropriate instant adjustments to their teaching as required.

Asynchronous lectures, on the other hand, were based on the creation of pre-recorded video recordings of lectures – offering students the flexibility to learn at any time and anywhere without the need to attend timetabled sessions. A self-directed learning design approach is the key to helping students to keep up with their expected learning progress, enabling them to achieve the intended learning outcomes set at the subject level and even at the programme level. Students had to take several subjects at a time during the semester. Despite having greater control over their learning pace, with the overwhelming number of online activities set by

different subjects throughout the whole semester, they found it hard to adjust their learning pace to adapt to the swift change from the scheduled learning mode to the flexible learning mode. This was one reason why some students complained of having a heavy workload to manage at a time, due to challenges with their learning progress. Thus, achieving a balance between instructor-paced and self-paced learning is important. This could be illustrated by the phenomenon observed by the experience sharing of one subject team.

Originally, the subject team adopted a strict instructor-paced mode. The team set a weekly learning schedule for the students about which topic they were expected to learn and reminded students of the need to follow their study timetable to watch the pre-recorded video lecture – announcing that the online video would be removed after 1 week (Fig. 3) from the scheduled release date. From the figures below, it was observed that the majority of the students would watch the video on the day of the lecture (as scheduled in the subject timetable) and complete the learning tasks.

In the middle of the semester, students requested that the teaching team extend the video lecture broadcasting duration to allow flexible learning and to facilitate revision whenever it was needed. In response, the weekly release of new pre-recorded lectures based on the subject's teaching schedule was continued, but the video lectures were kept online without a limited viewing duration being imposed. As a result of this change, a substantial shift in video watching patterns was observed, with an unstructured and scattered study pattern emerging, extending over weeks and overlapping the study time of several lectures (Fig. 4); i.e. students were no longer able to follow the instructor-paced pre-set timetable to review the teaching content weekly.

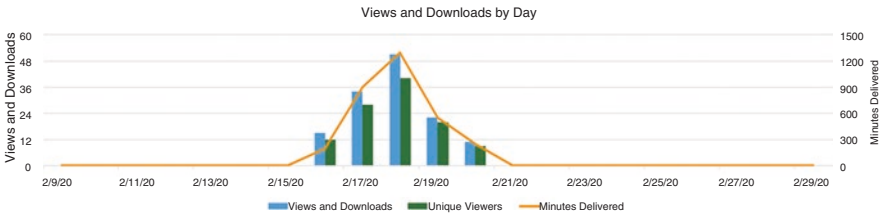

Fig. 3 Number of viewers (in bar chart) and duration of video watched (in orange line) of pre-recorded lectures with "fixed" broadcast period

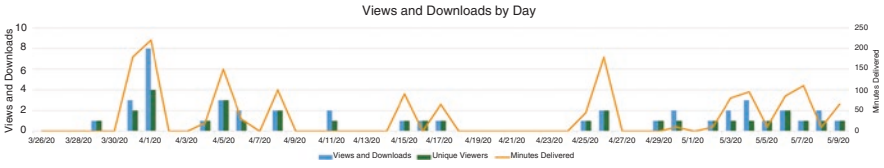

Fig. 4 Number of viewers (in bar chart) and duration of video watched (in orange line) of pre-recorded lectures without "fixed" broadcast period

These figures suggest that a self-paced learning design alone is not sufficient to ensure students' study progression. The combination of instructor-paced and a limited video 'broadcast period' did make a significant difference in influencing students' motivation to keep up a study schedule in their learning progress – assisting them to manage their study time effectively. Thus, balancing instructor-paced and self-paced learning activities is a crucial consideration in designing for the asynchronous mode of teaching and learning.

(b) Tutorials/Practical Classes

Synchronous tutorial classes used the same technologies as synchronous lectures, except that the focus was more on the active discussion of theoretical concepts, the application of theory into practice and the analysis and integration of practical skills used in clinical practice. With our annual intake of 150 students in our programme, these lessons were delivered to a much smaller group of around 25–30 students to ensure sufficient supervision and guidance could be given to facilitate students' learning. However, in order to have more in-depth and thorough discussions, students were further divided into sub-groups (in breakout room format). Students would then engage with each other within their corresponding small breakout groups, where they were able to communicate via video, audio or even web-based collaborative word-processing documents to discuss and exchange ideas. Before the end of class, the entire class would regroup and each sub-group would nominate one or two representatives to turn on their cameras and microphones to present their discussion findings using the sharing function in the LMS to facilitate their presentation (Fig. 5). Under COVID, the global prevalence of depression was substantially increased by 7 times, reaching a pooled prevalence of 25%

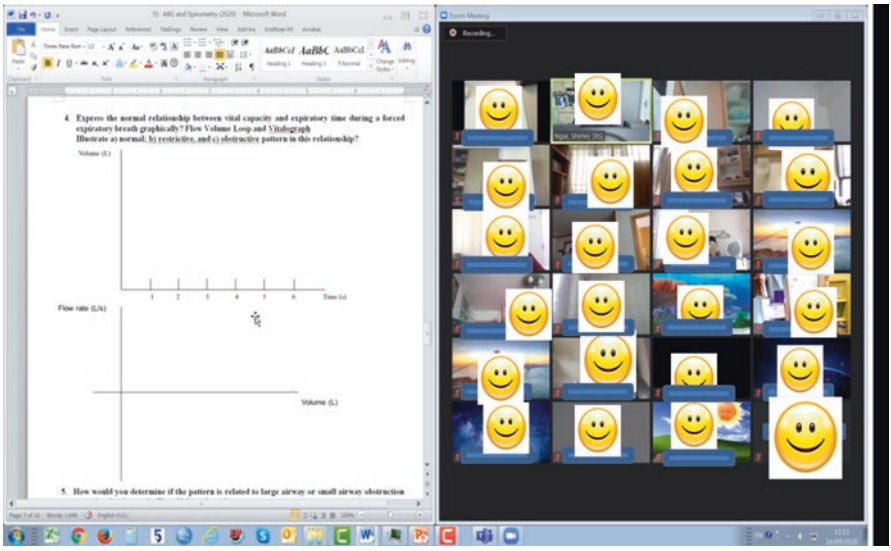

Fig. 5 Synchronous tutorial class – an example showing class assignment and discussion

(Bueno-Notivol et al., 2021). This was probably associated with the unpredictable nature of disease, loss of control and personal freedoms, social isolation and distancing. Through these collaborative activities, we aimed to keep students "communicated" and "connected" with each other to help them be "expressive," "supportive," "collaborative" and "engaged" within the online collaborative learning environment.

As we have previously discussed, hands-on practical skills teaching is essential in healthcare education. Thus, some teaching staff adopted synchronous, asynchronous or even a mixed mode of teaching pedagogies such as real-time practical demonstrations (Fig. 6a), or pre-recorded practical skills demonstrations (Fig. 6b), interspersed with discussion in tutorial classes to address this skills teaching. Other

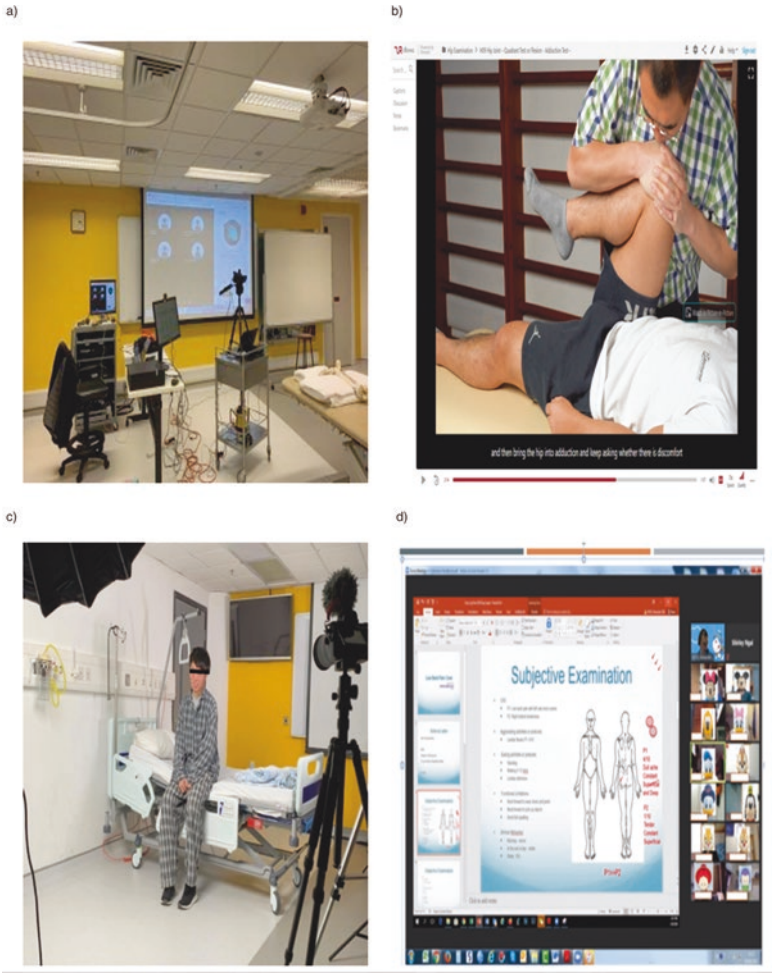

Fig. 6 Use of various teaching pedagogies in teaching: (**a**) interactive practical class set-up; (**b**) pre-recorded video of practical skills demonstration; (**c**) "simulated patients" recording; (**d**) interactive role play case discussion

staff made use of a range of teaching pedagogies, e.g. using "simulated" patient recordings for demonstrations (Fig. 6c), interactive role play for case discussion (Fig. 6d) and interactive case assignments to keep students engaged. For instance, some teaching staff asked students to submit video assignments to demonstrate their interview skills and communication with simulated clients and their instructions about exercise demonstration and prescription in video format to demonstrate their capability to achieve the pre-set subject intended learning outcomes. All staff aimed to build up and strengthen their students' foundational capabilities by keeping them practicing their hands-on skills – exercising clinical reasoning to prepare them as much as possible for the swift adoption of the practical skills once F2F teaching could be resumed.

The transition to online learning is not just about the teaching staff, it is also about how we prepare students to learn effectively online and keeping them engaged is crucial (Carter et al., 2020). Strategies include setting achievable learning goals and tasks so that students know what they are expected to learn. This involves designing for self-directed learning with appropriate guidance so that students are able to complete their tasks at a coordinated pace with a schedule and plan. This is important as it will prevent the course content from being squeezed and pushed back to the end of the semester, which can greatly impede individual learning. It's also important in keeping students engaged with the teaching and learning activities through regular communications, progress alerts and weekly reminders; being available and reachable are ways to keep communication and interaction open between teaching staff and students (Carter et al., 2020).

3.2 Interaction and Communication During Synchronous Online Teaching

There is usually a confluence of communication and interactions that occur during a traditional lesson that may be lost during online teaching. These forms of communication may range from the use of speech and hearing to vision, touch and utilization of space. Examples of this include the teacher walking around the classroom and using space to guide communication, or it can include students breaking out into smaller sub-groups and forming dynamic bubbles of communication in small sub-groups. Some forms of communication in traditional classrooms are listed in Table 1a.

The use of an online classroom may not deliver a comparable experience to that of a traditional classroom. For example, vision is maintained, but screen size in modern electronic devices, especially in smartphones, is far smaller than the size of the visual field that is available within the traditional classroom. This is further limited by the partitioning of the screen during an online class, often leaving a small frame for viewing the video feed of the teaching staff and students. This restricts students' ability to communicate using non-verbal cues such as body language. Despite the limitations, online classrooms open up opportunities for different channels of

Table 1 Differences in modes of interaction between teaching staff and students during traditional F2F lessons and online synchronous lesson – (a) face to face (F2F); (b) online

1a. Modes of interaction between teachers and students – traditional F2F classroom	1b. Modes of interaction between teachers and students – online synchronous lessons
Verbal speech	Video feed from camera
Body language	Audio feed from microphone
Projecting a computer screen and lecture slides onto screen	Text-based chat-box (with identity or anonymous)
Drawing on the whiteboard or blackboard	Web-based collaborative word processor
Display of anatomical models, posters and clinical equipment	"Raising your hand" button
Demonstration of exercise and use of equipment	Live MCQ Quiz
Use of touch to teach practical skills for patient management	Whiteboard drawing
Movement and use of space around the classroom	Lecture slides and screen sharing
	Video recording playback

communication. These include the use of chat boxes and virtual whiteboards during online synchronous teaching. Table 1b includes a list of ways in which interaction can be supported within an online classroom. The use of these tools is effective and should not be perceived to be inferior to methods of communication used in a traditional classroom. However, they are different, and this also requires adaptations to lessons and lesson preparation to ensure that they are used effectively.

Tutorials are supposed to be interactive and involve discussion with other students. In a traditional classroom, students can commonly initiate discussions and exchange messages and ideas with peers who are in their surrounding physical proximity. This process helps individuals through the education process and students naturally communicate matters in a group size that is conducive to such discussion. Unfortunately, in an online environment, students cannot easily talk to a select number of their peers because when they turn on their microphones, what they say is sent to the entire class. Even if they want to use a private chat function to talk to specific students (e.g. in Zoom), it is almost impossible unless the co-host role has been assigned to them. Furthermore, individuals often cannot easily find a partner to initiate such small group discussions because of the lack of spatial organization within an online classroom and are only able to do so when they have been assigned to a breakout group by teaching staff (in the capacity of host) to initiate small group teaching and learning activities. Finally, teaching staff get disproportionate attention, especially when the instructor is the only person with the camera and microphone turned on, and this facilitates students' passivity during online lessons. Suppliers of these online systems used to deliver tutorials should further investigate this limitation in their platforms and develop tools to overcome this problem. Meanwhile, this lack of infrastructure highlights the importance of artificially arranging subgroups and preparing them prior to the synchronous lesson. This can be organized either via allocation or student sign-up under a public class list and a communication channel arranged for students within these sub-groups. All of these steps should be taken into consideration when planning for online synchronous teaching.

3.3 Perspectives from Students

From the introduction of online teaching and learning delivery onwards, we regularly kept track of students' engagement and attendance in class and collected feedback on online learning from time to time to evaluate how well the department and teaching staff could support learning under the current physical and environmental constraints. In addition, we conducted an in-depth evaluation of viewing statistics and peak video duration to see if a particular part of the content drew more attention, which might indicate a need for further explanation. The attendance for lectures and tutorial classes ranged from 78.3% to 100% in the first few weeks. In the second week of the semester, our department conducted a survey focusing on our students' online learning experience, with 340 undergraduate students completing it. Also, 84.4% of the respondents had attended synchronous online learning sessions, and 79.4% of the students considered online teaching helpful to their learning and were satisfied with the technical support provided. Half of the respondents regarded their online learning experience as either good or excellent. The main concerns of the students were technical issues, such as poor network connections, delayed responses in synchronous online teaching and a preference for using specific online learning platforms or software, e.g. Zoom, to be more preferable than the others. When comparing the different modes of online learning, students preferred the use of asynchronous pre-recorded lectures so that they could watch the videos anytime and play and re-play the videos based on their learning pace. This certainly helped to facilitate their progress with revision.

When comparing the rated score for the subject content in the student feedback questionnaire (SFQ, using a 5-point Likert scale, with 1 indicating strongly disagree and 5 indicating strongly agree) for the last academic year (before COVID-19) and that for this academic year (swift change to online under COVID-19), the mean SFQ for subject content and quality decreased slightly, and this change was similar across the study year (Fig. 7). However, when rating their online experience in terms of support in the online environment, workload, interaction with staff and usefulness of online learning materials, the scores were not in line with the rating of subject quality (Fig. 8). When reviewing the details of individual subject-based delivery methods, the Year 2 practical-based subject adopted all content delivered in a synchronous mode with the addition of online discussion forums, while the other two subjects adopted a mixed mode of asynchronous and synchronous content delivery. Despite students rating the asynchronous mode as "preferable," the attendance rate of synchronous lectures and tutorial classes in all of our departmental offered subjects was consistently more than 75%, based throughout the semester by tracking the learning analytics in the LMS. When comparing the actual learning experiences and understanding of content, subjects with more synchronous and interactive components were rated as enhancing the students' learning experience because individuals could interact with teaching staff to clarify concepts.

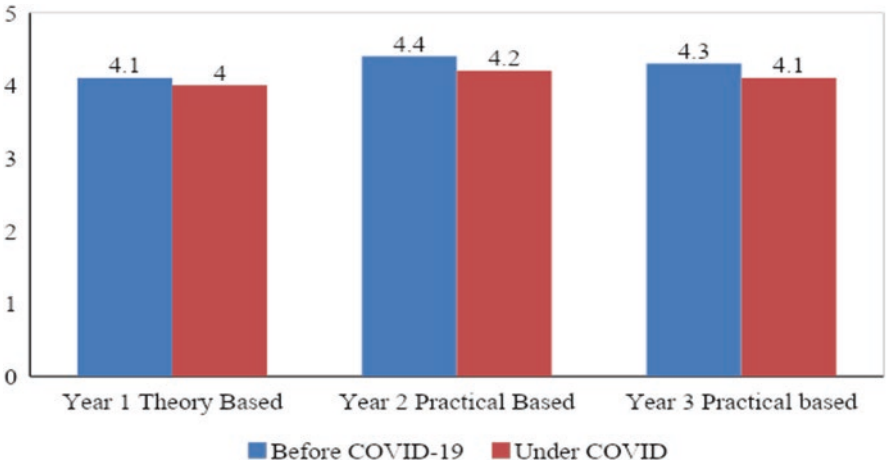

Fig. 7 Comparison of SFQ score of the SAME subject conducted before COVID (using traditional F2F method) and under COVID (with the swift change to online mode). One subject in each study year was chosen as shown as example

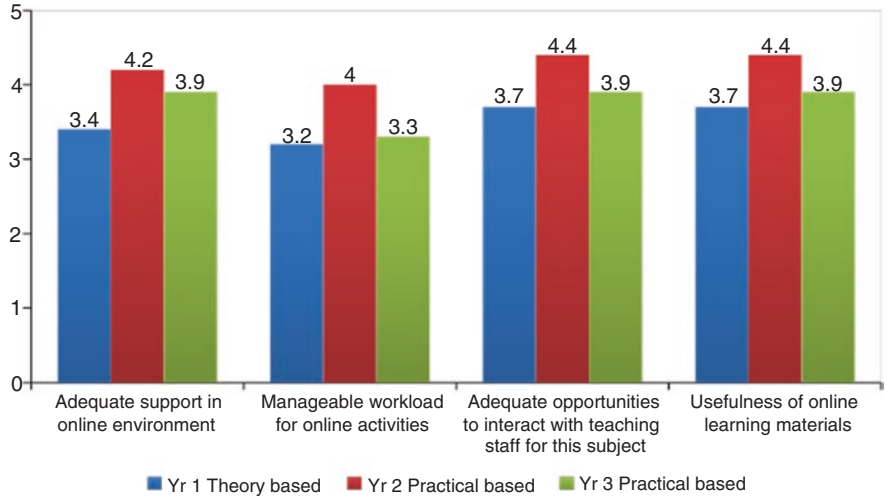

Fig. 8 Comparison of SFQ score about students' experience about online learning (under COVID)

3.4 Perspectives from Teaching Staff About Their Learning Journey

By the end of the semester, teaching staff were interviewed and invited to reflect on the difficulties that they had faced, the pedagogies that they had adopted and how they had restructured their course content. The common comments included

difficulty in mastering the computer skills and technology-based interactive tools within a short period of time, preparing quality practical skills demonstrations and/or teaching videos, exploring available online resources and catering for students' diversities in learning. Despite the challenges that they had faced, staff reported that they strived to adapt to the online teaching mode in the best way possible.

For computer and technology-related activities, the time required to master the required level of skills varied between staff, and this became evident when reviewing the booking schedule of workstations and the need to have onsite technical support during online teaching activities. The frequency of bookings and requests appeared to be associated with age categories. The majority of our teaching staff fell into the categories of Baby Boomers and Generation X, while some were in the category of early years of Generation Y (Jiri, 2016). The differences in technology development and advancement milestones as well as the levels of technology mastery across generations (Luc et al., 2021) may partly explain the phenomenon that we observed. When discussing the efforts required to prepare digital or technology-based tools to support or supplement online teaching, teaching staff commented that the nature of subject content, resources availability and teamwork were the key determining factors. For instance, functional anatomy is one core fundamental subject in our programme with both theory and practical components. During F2F practical sessions, the team used to adopt different practical tools such as real human bones, plastinated specimens, plastic models to enhance long-term memory and better understanding of the human body in 3-dimensions (3Ds). With the suspension of F2F classes, the team had to explore other virtual anatomy software or videos to support students' learning. However, it was difficult for the students to perceive and visualize the spatial orientation and neurovascular relationship. Extra effort was needed to present and explain the teaching materials without observing or palpating the body structures and organs in cadaveric prosection or F2F interactions with teaching staff and peers. The team members took the initiative to explore available resources and drive the substantial change in teaching pedagogy to supplement their online teaching provision, whilst keeping the subjects' intended learning outcomes unchanged.

Being part of the Generation Z community, students share similarities in learning preferences and tend to be more sophisticated in their use of technology (Luc et al., 2021; Mosca et al., 2019). They are more familiar with digital communication and are expected to have instant and on-the-spot responses (Venter, 2017), in contrast to traditional F2F communication, which emphasizes the importance of verbal and non-verbal cues. This also explained why students preferred using the chat box function in the LMS to type questions during online lectures/tutorials or even use the collaborative whiteboard to type and discuss ideas during small group peer discussions in online tutorials, rather than switching on the microphone for direct verbal communication. During the pandemic, teaching staff, regardless of the generation diversity, were forced to adapt to and cater for students' learning styles and preferences within a short period of time. It was the "needs" and "determination" to change that made teaching staff, regardless of their prior experience and attitude

towards online education, able to step out of their comfort zone to learn, apply, adjust and modify, driving them on to leap forward to follow the technology-driven trend. This was evidenced by the increased percentage of subject-based online activities recorded in the LMS as reported at the departmental level by the university's education development centre.

3.5 Reflections on the Timetabling Planning for Resuming Small Group F2F Practical Teaching

Face-to-face classes featuring hands-on skills taught in-person are considered to be an indispensable part of the healthcare curriculum. Thus, when the pandemic gradually settled, we urgently needed to restructure the timetable to offer an intensive F2F block-teaching so that students could catch up with the progression pattern of their corresponding study year and minimize the impact of study delay. Catering for social distancing measures, infection control and the teaching staff–student ratio under the constrained space were all key concerns during the timetable planning. The whole process required the engagement of programme management, teaching staff and students.

In usual class schedules, students attended 2 h class per subject and swapped to other subjects for the entire day (i.e. attended 2 h class per subject for four subjects a day being taught by four different teaching staff in four different classrooms in one day). Under the pandemic, we adopted the "one classroom one group one day" principle for timetabling. In brief, each group of students would stay in one classroom for all teaching-related activities of the same subject to minimize the staff-to-student and student-to-student contact. If another group were to use the room, they would not be scheduled until the next day. After thorough daily cleansing, the surfaces that had been potentially contaminated by one group would rest overnight for over 12 h before being used again, giving viruses an opportunity to naturally perish, especially given the half-life on most surfaces is a few hours.

In view of the increased student preparedness after online teaching and considering the uncertainty of campus opening duration because of an endemically circulating virus, the total contact hours for F2F teaching were substantially reduced and concentrated over a short duration of time, which made the "one classroom one group one day" principle for timetabling implementable for students across different study years.

During F2F practical classes, the content was adapted to focus on essential hands-on practical skills with prior learning through the aforementioned adapted teaching pedagogies. The similarities in overall subject assessment results between the same study year under the pandemic (i.e. academic year of 2019/20 semester 2) and the previous year (i.e. academic year of 2018/19 semester 2) may suggest that the use of online education could free up the class time for essential F2F practical skills teaching or even more complicated integrated hands-on case practice using

the flipped classroom approach. The swift change due to the pandemic has forced all educators in different sectors to move out of their comfort zone and rapidly transform to technology-based education within a short period of time. With its smooth implementation, the currently adopted teaching pedagogies and the newly designed "timetabling" principle, perhaps, could be continued under the COVID-19 associated "new normal" lifestyle.

4 Future Directions for Preparing Teaching Staff to Implement Online Education

The sudden and swift change of teaching mode has had a great impact on both teaching staff and students, forcing all of us to step out of our comfort zones to make the transition from traditional F2F to online teaching. It also provides an opportunity to explore the potential of other teaching pedagogies to supplement online teaching delivery.

We have learned that preparing students on how to learn efficiently and effectively through online education and keeping them engaged are crucial responsibilities (Carter et al., 2020). Strategies include setting achievable learning goals and tasks so that students know what they are expected to learn; self-directed learning with guidance so that students are able to complete their learning at a coordinated pace with a schedule and plan to prevent the squeezing of their learning of course content at the end of a semester, which would greatly impede their learning; keeping students engaged with the teaching and learning activities through regular communications, progress alerts and weekly reminders; and being available and reachable are ways to keep communication and interaction between teaching staff and students open (Carter et al., 2020).

As discussed, generation diversity (Jiri, 2016), the concept of learning (Schunk, 2012) and differences in learning strategies (Luc et al., 2021) may partly explain the discrepancies in expectations about teaching and learning between teaching staff and students (Williams et al., 2017). Even when support at an organizational level is provided, the challenges and barriers to change may still exist or need a longer time to be solved if the generational differences associated with personal and attitudinal barriers are not addressed. Thus, professional development should not be limited to solving the problems that teaching staff face but should also support the teaching staff, helping them to understand their expectation differences with the students and how to bridge the expectation gaps (Luc et al., 2021; Oh & Reeves, 2014; Williams et al., 2017) by providing clear direction and structure; serving as a role model and mentor; engaging students with interactive feedback; and using their life-learned experience to facilitate students' learning (Williams et al., 2017). Furthermore, the interests of teaching staff in association with their teaching profession should also be considered (Kennedy et al., 2009). Thus, professional training provided by department-driven initiatives is as important as the university-driven provision. The

latter addressed the general framework for online teaching, while the former focused on infrastructural deployment (hardware and software) during the course design/planning to ease the psychological and technical barriers that teaching staff perceived at personal and attitudinal levels, as well as the support to instructional design on planning content restructuring. All of these considerations are essential to ensure the intended teaching and learning outcomes are still achievable without deviation (Carter et al., 2020; Panda & Mishra, 2007). This suggests that individualized or more generation-focused continuous professional development and learning provision should be developed to address personal diversity.

The pandemic has represented a significant turning point, pushing education forward to enter the digital era. Despite the swift changes in teaching practice, the developed online pedagogies still have room for further improvement and refinement. Relevant and ongoing feedback as well as continual professional learning and development both during and after the transition will be necessary to continually refine the teaching tools, making them sustainable to meet the ongoing changing needs in education (Sinacori, 2020).

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Part III
Middle-Out Programme Driven CPLD

Co-design as Professional Learning: Pulling Each Other in Different Directions, Pulling Together

Carmen Vallis, Stephanie Wilson, Jessica Tyrrell, and Vickel Narayan

Abstract How best to support active and engaging online learning and teaching in higher education? Increasingly sophisticated professional skills associated with technological, pedagogical, and content knowledge, supported by an integrated team approach, are required. The social and dialogical process of co-design can erode barriers to engaging with new pedagogical approaches to online learning. By 'pulling each other in different directions', multidisciplinary teams learn from each other, and learn how to 'pull together' to improve student learning experience and outcomes in higher education. Reconceptualising teaching and learning through such co-design is an ongoing emergent process, rather than an incremental series of events. Yet the nuance of how more active online teaching practices emerge from such professional co-design processes is little understood. Frameworks for measuring and understanding the professional development impact of co-design, as well as models for sustainable collaboration, are needed.

This chapter outlines a continuing professional learning and development (CPLD) approach to active online teaching from a co-design perspective, which draws on a design-based research framework to support skills in designing, developing, teaching, and evaluating diverse business subjects. Insights and recommendations for those leading and participating in collaborative design projects are presented.

1 Introduction

Co-design is a facilitated, collaborative process in which team members work together to design an educational innovation. As part of this process, prototypes are developed and evaluated based on their effectiveness in addressing an educational need (Roschelle et al., 2006). The process of co-designing courses and curricula is

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increasingly seen as an opportunity for professional learning and has the potential to support teachers in learning to teach online (Voogt et al., 2015). Such continuing professional learning and development (CPLD) involves collaborative, interdisciplinary design processes in authentic contexts and mirrors the principles of designing for student-centred active learning experiences (Ertmer & Newby, 2016; Laurillard, 2009).

Yet higher education teaching is traditionally an autonomous activity. Curriculum design and course development are often contingent on individual, academic skill, capability, and capacity (McGee, 2014). Such learning design and teaching are highly context dependent, and educators' intrinsic beliefs about learning are more likely to influence practice than pedagogical research (Bennett et al., 2015). Sharing learning designs, teaching methods, and teaching activities is uncommon due to time constraints, resistance to change, and sometimes a lack of knowledge, apart from early adopters and innovators (Cameron, 2017).

In contrast, our co-design process with educators is grounded in learning through a Community of Practice (Cochrane & Narayan, 2013). Over time, professional development emerges out of social learning and developing competence through shared experience and a shared culture (Wenger, 2000). Shifting to a multidisciplinary, co-design team approach is a substantial cultural and social change. An investment of time and commitment is needed to reap the benefits of collaborative professional learning in teams and truly create change (Burrell et al., 2015). While co-design has not been used widely to support strategic pedagogical change in Business Schools, it has been used in a variety of ways in higher education (Wilson et al., 2021).

In co-design processes, team members gain skills and a sense of ownership through interacting with peers and multidisciplinary experts and by negotiating the design and development (Voogt et al., 2015). Much of the process draws on iterative design systems such as Engeström's expansive learning cycle (2011), design-based research, and the design inquiry framework (Mor & Mogilevsky, 2013). Indeed, co-design revolves around iteration and redesign, which is central to effective design (Goodyear & Dimitriadis, 2013).

Such creative collaboration from diverse perspectives necessarily involves an open communication and willingness to persist beyond inevitable misunderstandings and creative tensions and mismatched levels of readiness to participate. As part of this multidisciplinary collaboration, team members share goals and gather and evaluate the impacts of this different teaching and learning design culture (Barber, 2015). Reflecting upon these findings is also a critical part of the process to embrace diverse perspectives and contributions (Beacham & Shambaugh, 2013).

However, collaborative approaches to educational design are ill-defined, and this ambiguity can be both exciting and uncomfortable for all involved (Bower, 2017). Co-design projects can fall apart unless team members pull together. Hence, in this study, we ask, How may a co-design approach and its creative tensions support professional learning and more active online teaching practices?

By investigating our co-design process and its outcomes, we present recommendations for optimising professional learning through practical immersion in co-design. Our course development practice builds on the concept of situated learning

to situate CPLD in the context of online teaching and learning with its unique affordances and constraints (Collins & Greeno, 2010). We argue that co-design can be refined and studied with models such as Drain and Sanders (2019)'s Participatory Design Collaboration System Model (CSM), discussed later in the chapter, to increase the quality of collaboration and ultimately professional learning.

1.1 Connected Learning at Scale

The co-design practice described in this chapter is part of a large strategic project at the University of Sydney Business School called 'Connected Learning at Scale' (CLaS). The project aims to transform the teaching and learning experience in our large undergraduate and postgraduate core subjects. It is intended to better manage and leverage the scale of cohort and to support, nurture, and leverage connections between students, disciplines, industry, and society. One of the guiding principles of the CLaS project is to increase opportunities for students to actively engage with discipline knowledge online as opposed to having it 'delivered' to them in a lecture. Figure 1 shows the five phases of the design-based research process used to implement CLaS principles.

The co-design process in CLaS projects typically unfolds over three iterative cycles across three semesters. Over the course of approximately a year and a half, these development cycles loosely follow the stages of design, plan, build, implement, and evaluate, as shown in Fig. 1.

The first cycle of development begins with an intensive exploration of ideas, planning, and design. An educational developer meets with the business academic (the subject coordinator) to scope, plan, and discuss the design principles and phases of the CLaS project and provide pedagogical advice (Bryant, 2022). A multidisciplinary team is formed for all subjects involved in CLaS projects. An educational developer leads the project and coordinates a team of learning design and media professionals, along with a researcher who evaluates interventions. In this critical early stage of a CLaS project, the educational developer facilitates 'Connect:IN' workshops where the business teaching team and other stakeholders (such as tutors, students, and industry members) suggest areas to enhance the subject design. This co-design process with a diverse team addresses educational challenges arising from the authentic, increasingly complex business skills and knowledge required of students (Vallis & Redmond, 2021).

The project team negotiates a design and development plan, with the subject coordinator and teaching team contributing content, assessment, and ongoing feedback. Media assets and digital learning sequences are built and tested, and appropriate learning tools and technologies, often new to the subject, are integrated to meet educational requirements. Throughout this process, academics learn by collaborating with the multidisciplinary team and are supported with guides, resources, and DIY multimedia kits as needed.

Evaluation data are collected for each phase or semester, with a combination of surveys, focus groups, interviews, and class or space observations where relevant.

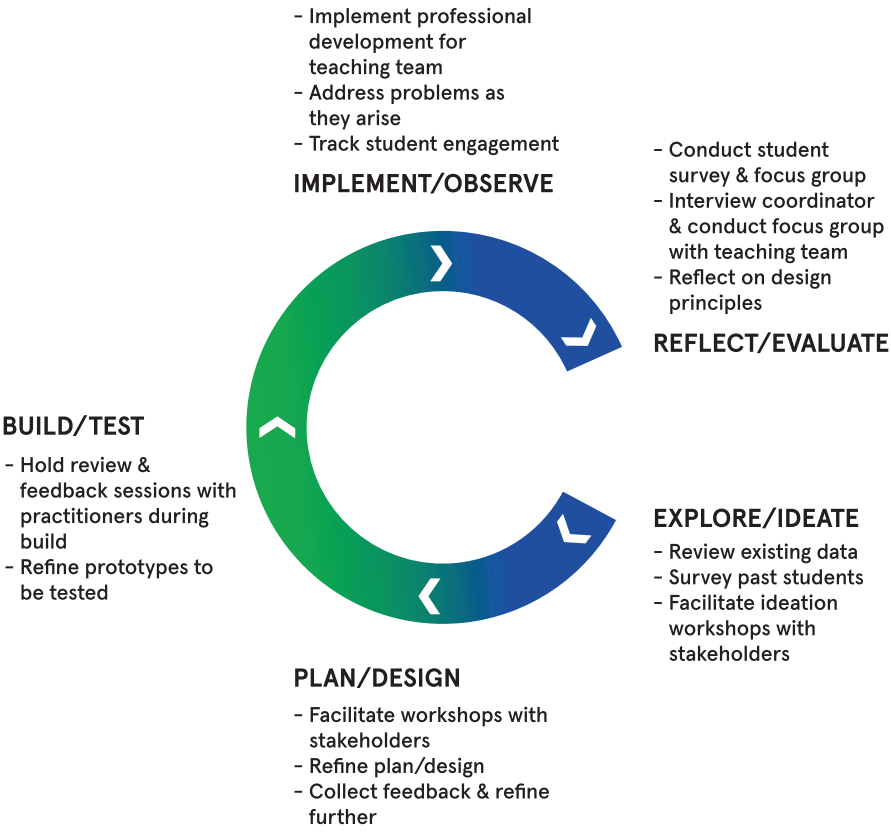

Fig. 1 CLaS design and development cycle

The evaluation is co-designed with business academics and other relevant stakeholders to align with educational research as an accountability measure and to support evidence-based changes.

Similar to the approach described in Barbera et al., (2017), the co-design process is embedded in design-based development and research to connect theory and practice. Learning interventions are designed and evaluated in practice – in collaboration with practitioners and in naturalistic settings – helping bridge the theory and practice gap to create transferable knowledge that is useful in different teaching contexts. Hence, our educational development is guided by iterative cycles of collaborative design, prototyping learning designs, and implementing and evaluating new teaching and learning approaches at strategic points in the development cycle (Wang & Hannafin, 2005). We propose educational co-design as a process of connecting people, rather than a task. Co-design connects the different design elements and teams as a whole and provides a focus on pedagogical design for learning and teaching. Figure 2 illustrates this process by mapping the stakeholder configurations and learnings across the co-design phases.

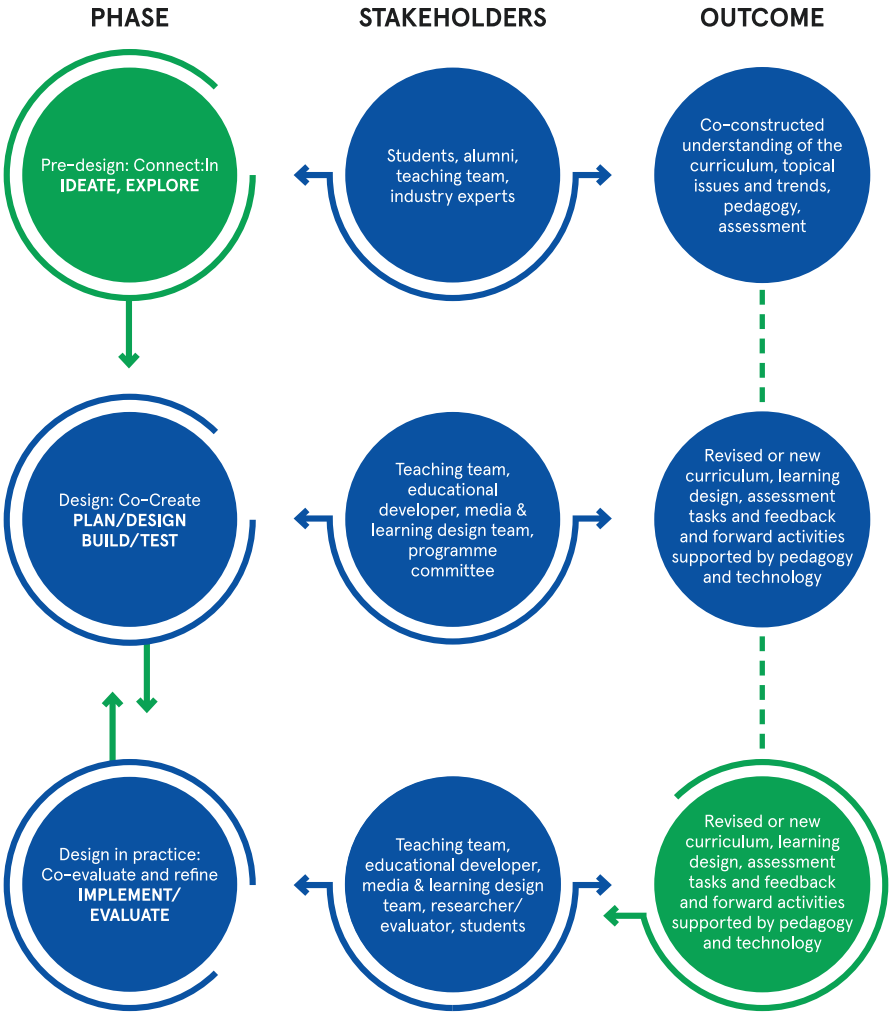

Fig. 2 Educational co-design as a connected process

2 Method

We routinely endeavour to understand the perspectives of business academics on collaborative professional learning and development through semi-structured interviews in accordance with the University's Ethics Committee [2019/892]. Questions prompt academics to reflect on their perceptions of co-design, both positive and negative, as well as the impact of collaboration on the development of their teaching practice. These interviews are conducted by research associates so that the professional relationship between the educational developers and academics has less influence on the scope of the discussions.

For this study, we also interrogated our own practice as educational developers and how it might support professional learning through a reflective conversation. Critical reflection is crucial to design-based research and to understand the professional learning that arises from co-design. This conversation was based on a series of self-reflection prompts, devised from our ongoing discussions about the role of educational developers in relation to core research questions (Driscoll, 2007).

After thematically analysing both data sets (recordings of academic interviews and the educational developer reflective conversation), we inductively coded and interpreted the findings as a group (Huberman & Miles, 2002). Finally, coded data were re-analysed for patterns and relationships that directly supported the research question of evidence of professional learning emerging from co-design.

3 Pulling Each Other in Different Directions

Three overarching themes emerge in our analysis. Co-design as professional learning and development necessarily pulls us in different directions, as academics and educational developers. In our professional lives, we often work in silos. Yet learning and change through co-design requires working together to learn about design itself. Attitudes to design also impact professional learning and development, particularly a disposition to collaborate and sustain effort through inevitable tensions. Our research indicates that sharing products and evaluation in and across teams can help us pull in the same direction together. Professional learning is strongly linked to reflecting on how to tease apart these inevitable tensions, as one senior educational developer noted in reflecting on the co-design process with discipline academics:

> What is this tension? Where's it coming from? How do we manage it? And then how do we actually benefit from this tension?

3.1 Learning About Design

Professional learning and development through co-design was strongly influenced by time management and competing priorities, which created tensions. At various times of the university calendar, academics' attention was divided or directed to other activities, and co-design was hurried, inhibiting both course development and professional learning. For example, where online content was developed week-by-week, design and development was compressed into short lead-times. It then became difficult to review and holistically appraise learning design in rapid development cycles, and academics expressed some frustration at what was perceived as a rushed process.

However, team members who committed to the time and effort needed to coordinate and produce quality support for online learning demonstrated evidence of professional learning related to the co-design process. Academics gained designer knowledge, practical insights into working with a production team, and the exigencies of lead-times and development cycles, which differ from traditional classroom teaching that follows a weekly semester schedule. Professional learning and development was cumulative, gained with repetition and practice across many weeks. Academics became more skilled in creating engaging multimedia by learning to present to camera over several filming sessions. In successful projects, it took several weeks for the team to understand each other's design needs and timeframes, sometimes longer. For example, a subject coordinator of a large postgraduate first-year Finance subject flagged that

> It started from a point of great uncertainty as to how we would all work together, through to almost a well-oiled machine. But it probably took about six weeks to understand … particularly referring to the online asynchronous material … to get the thing running where we understood how each other worked. I don't think that's unusual with any sort of audio-visual world. But it's running smoothly now.

The process of creating and reviewing online content was also considered cumbersome when team members were unused to design as a process. Educational developers and learning designers were not subject matter experts, so content changes could not "magically appear." Yet, with hindsight, academics sometimes acknowledged the benefit of team members with different strengths. For example, learning designers helped them understand how to effectively chunk and sequence content to engage students more actively with concepts in an online environment.

Lack of time, combined with the push and pull of co-designing as a team, could generate complex, creative tension around processes and control. Educational developers continuously questioned their own assumptions about how to design for learning with team members. On the other hand, academics expressed tension about what they perceived as an imposed design, which had to be articulated and worked through until the team arrived at a shared vision. Such tensions around creative control were sometimes resolved upon examining evidence of benefits for students when positive results could be seen. Through this process, academics learned about design consistency and user experience across subjects, whereas before they had become "tethered" to their own designs. For example, a tutor in a core undergraduate subject in business leadership thought it important to

> embed the broader vision … and just let go of some of our own design ideas but working together. I mean because unless we see a vision of something that we haven't seen before – to be able to help us – I feel like it's really upgraded the content … So just in that collaboration … And you know, we just worked through that, had our views about it and then it started to make sense.

Misunderstanding team members' strengths and roles led to tension but also group learning. Testing each other's assumptions and asking challenging questions could lead to positive turning points in professional development. In one instance, mounting tension was only resolved when the team acknowledged that the

co-design workflow was not working and mutually agreed a way to improve it, eventually resulting in deeper trust and a more productive and creative output for students. Through these stronger relationships, the team felt safe to trial and innovate an educational technology to collect weekly reflections and send students personalised learning messages.

3.2 Attitudes to Design

Professional learning through co-design was contextual and adapted to individual practice. Academics drew on their own experiences and expectations of what teaching means at university, which sometimes meant working with (and around) unclear policy and procedure and ingrained institutional practices.

Beyond a common desire to create the best possible learning experience, co-design worked well when all acknowledged that developing large-scale courses is complex and needs a collaborative team effort, particularly as class sizes in higher education are likely to continue to increase. Most academics teaching large classes found professional learning in this context inherently more challenging, although one academic was inspired to greater pedagogical creativity.

Busy business academics appreciated team support and project management, technical assistance, and pedagogical advice from educational developers and the learning design and media professionals. Co-design processes and templates for designing and developing active learning online content were also considered helpful.

By contrast, educational developers discussed being mindful of processes with "gentle" facilitation to steer the team towards different possibilities in teaching and learning. Framing conversations around redesign from a student's point of view helped influence better learning outcomes. Above all, educational developers highlighted the authentic and situated nature of professional learning with academics in multidisciplinary teams as

> learning by doing, by being immersed in a different culture and context, and really grappling with the problems in that culture and context …

In general, respect for often conflicting demands, compromise, and choosing the right moments to suggest changes helped build mutual trust. Building strong co-design relationships meant remaining positive in stressful times and an investment of resilience and energy. Indeed, one project team with previous experience working together found they could create a team culture and pride in their collaborative process through weekly meetings, technical support, and frequent communication, and differences of opinion were embraced, regardless of status. The subject coordinator of this first-year postgraduate marketing unit described their co-design as

> It just feels like boots and all, everyone just gets in and jumps in and does what needs to be done and helps each other out in that process.

3.3 Sharing Co-design in and Across Teams

Time and organisational constraints, tensions around creative process and control, combined with sometimes ambivalent attitudes to co-design, contributed to knowledge gaps and misunderstandings. However, these could be bridged by sharing teaching and learning practice and evidence within teams and across disciplines. Despite challenges such as patchy communication across teams and disciplines (which in some cases meant that academics were unaware of professional learning opportunities such as training workshops), co-design was considered an opportunity to traverse these organisational silos, even if such work was slow and fraught at times. Differing roles and views could sometimes provoke reflection on separate but complementary perspectives (Vallis & Lopomo Beteto, 2022).

Sharing practice to push beyond individual course development emerged as a key affordance of professional learning in co-design. Immediate positive practical impacts included sharing, re-using, and adapting videos and interactive activities across subjects. Seeing others' course development and products inspired academics to change their own practice or sparked new ideas. Diverse and fresh perspectives from working with a multidisciplinary team were noted as stimulating "ideas that I haven't thought of before." Suggestions on how to present certain concepts, or how to interact with students online, were valued. Knowledge gaps in technology were also bridged. Academics were exposed to new educational technologies through co-design, creating tangible opportunities for learning and changing their teaching practice. They particularly benefited from technical upskilling in areas such as media production and online learning design. This positive impact rippled out to other subjects as academics applied active online practices to other teaching contexts.

The skills and experience academics gained by collaborating on projects with diverse roles, timeframes, and processes were different from their usual teaching or research. Co-design also highlighted the need for embedded professional development. For example, one academic wanted to learn content authoring tools to create and edit interactive activities to take greater ownership of the design and development process in the future.

As evaluation is built into co-design, team members had opportunities to collectively reflect on evidence and practice to re-think student learning, which in turn facilitated more creative and reflective practice in a business leadership teaching team.

> I'm a bit more intentional in the way that I will teach. Rather than 'here's my content …' so I feel like that has changed in a good way.

Through collectively analysing evaluation data, team members learnt what aspects of online learning design were effective. Formative data provided evidence of whether students completed online pre-work activities, for example, and whether the activities contributed to learner engagement. For the same teaching team, more

accustomed to observing student behaviour in a classroom setting, understanding student responses to the newly developed online modules was illuminating.

> We do know that something good is happening, just looking at the data … It feels organised, the design is – everything just seems to be consistent and flowing. So we're getting a lot of qualitative comments from students that we're not even asking about, but they're noticing that they really are enjoying the online experience.

Team members learnt much about the shift to online learning by interrogating the qualities of different learning environments. Academics had cause to reflect on whether core concepts were more effectively learnt online or through verbal presentations, among other teaching strategies. Asking these kinds of questions is fundamental to CPLD and provokes further conversations and initiatives around student learning. For example, academics realised that designing and developing online asynchronous experiences could free up time in synchronous classes for more student-centred active learning (Kim et al., 2014). Student engagement in asynchronous online activities needed re-designing:

> It's a 24/7 cycle. It's a different way of thinking. It's understanding that students are not only learning within the tutorial once a week for an hour and a half … And so … we need to build the unit and approach our teaching in that way.

Approaching development through co-design helped some academics re-think and revisit teaching assumptions, especially important in shifting from campus-based to online learning. It meant reappraising how online teaching could be active, where before "we were just like transmitting, throwing information" at students. Academics were exposed to design ideas outside of their discipline as, "in your own teaching team doing the same thing, delivering, you know your content, so you do become insular." Another subject coordinator, with no experience teaching online at the time of the interview, conceded that although their pedagogical approach was perhaps more old-fashioned than others in the co-design team, they realised, "maybe students learn in different ways." This augurs well for future developments.

At the other end of the spectrum, teachers adept in online skills felt "energised" to further creatively experiment with active teaching and learning strategies. Co-design gave innovators opportunities to spread their teaching wings.

4 Discussion: Pulling Together

This chapter set out to investigate how teachers may be supported in learning to teach online using a co-design development process (see Fig. 1). Findings suggest there are multiple ways that co-designing in multidisciplinary teams can support professional learning. However, learning through co-design may be negatively impacted under certain conditions, for example, if process and organisational culture are misaligned, or timelines are too constrained, resulting in onerous workloads and limited reflection.

Tensions can also be linked to a lack of experience in co-design and educational development practices. Such practices include working in a multidisciplinary team rather than individually; engaging in design-based and research-led approaches to curriculum development rather than content-driven approaches; and working in an arena where educational designs, methods, ideas, and artefacts are shared more broadly (Bennett et al., 2015; Cameron, 2017; McGee, 2014). As Bower, (2017) notes, tensions may be amplified by the inherently ambiguous nature of the design. We found roles were not always clear, particularly in the early stages, and this led to some discomfort. Nevertheless, educational developers and academics acknowledged that these frustrations could lead to professional learning development and hence better educational outcomes for students.

Co-design, often unsettling at first, is what eventually brings the team together. Because roles and processes are ill-defined, the team has to work together to create a culture, routine, and all the fundamental attributes that define an effective and productive team. These processes create a space for the team members to build trust, respect, and a mutually agreed but emergent set of guidelines for working together – this is sustained professional development and learning that is robust and refocuses when an unforeseen challenge or issue arises.

Consistent with a design-based research approach, each iteration of development in the subjects associated with this study has been comprehensively evaluated. The data collected through student surveys and focus groups provide preliminary evidence that developments arising from the co-design process related to CLaS principles have enhanced student engagement. For the subjects that are still in development, the impact on further professional learning and the student experience remains to be seen. However, the end-of-semester student feedback surveys show an upward trend of student satisfaction in CLaS subjects, despite the considerable personal and academic challenges posed by the pandemic.

We argue that the situated nature of co-design (Collins & Greeno, 2010) has significant potential to support the kind of sustained professional learning that results in shifts in online learning and teaching, ultimately enhancing the student experience. A finance academic and coordinator acknowledged how co-design helped him to navigate the rapid pivot to online and remote learning due to COVID-19.

> So unlike other people who hadn't really had a lot of experience in trying to use some of this for teaching purposes, I felt that I was in a much better position because at least I had used a lot of this technology before … I think it's a really, very positive experience.

Academics acknowledged some of the benefits of working in a team with diverse perspectives and skills. While further longitudinal research is needed, it is suggested that participation in co-design will assist academics to coordinate the types of support they need to develop quality online learning in the future. Relationships formed during co-design projects may offer a system of support that was perhaps not previously felt or drawn upon. Mindsets around curriculum development may shift over time to reconceptualise it from an individual endeavour to a collaborative effort of colleagues with different perspectives and strengths. University teaching practice

may be perceived as a highly networked and distributed activity where new approaches are embraced, which include sharing the role with other people, systems, and tools (Mantai & Huber, 2021).

To maximise professional learning and development through co-design over time, we suggest more attention to the quality of the collaboration process. The themes found in our analysis were consistent broadly with Drain and Sanders' (2019) Participatory Design Collaboration System Model (CSM), which aids in planning and evaluating designer–participant collaboration. The three areas of the model – designer knowledge, collaboration and capacity building, and participant knowledge – are useful for pre-empting the kinds of issues identified in the current study that arise from misalignments between the design process and organisational culture. Focussing more attention on academics' capacity to participate, as well as on appropriate design environments and materials to support collaboration and capacity building, may create an overall environment more conducive to professional learning.

Reflecting on our study and findings, we make five recommendations for maximising professional learning through co-design:

1. Consider academic partners' capacity to participate fully in the process, including what might best support this (active capacity building, design activities, materials, environments, time).
2. Orient teams to design-based development and co-design as an evolving, messy, and ambiguous process that may generate creative tensions that often lead to innovative solutions and valuable professional learning for team members. Acknowledge that not knowing how and where we are going together is the starting point – building a plan and new knowledge together is what will get us to where we want to go.
3. Identify aspects of the organisational culture that are misaligned with the co-design process and how these might be mitigated.
4. Ensure there is sufficient time to collectively reflect on the co-design process, emergent designs, and evaluation data during and between iterations.
5. Develop and implement a transition process at the completion of the project, including specific training needed to sustain developments.

Those leading co-design processes in higher education need to be equipped to recognise and navigate the complex dynamics of teams that may support or hinder professional learning. While we acknowledge that our co-design process is part of a well-resourced strategic project with a multidisciplinary team, our recommendations are transferable and relevant to a range of collaborative teaching contexts. Future research could explore the perspectives of all team members involved in co-design to further understand how professional development emerges out of social learning and through shared experience and a shared culture (Wenger, 2000). These multiple perspectives would provide a 360° view of how co-design, with its complex collaborative processes and creative tensions, fosters professional learning where all team members pull together in the interests of students.

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Share Sessions: A Solution to Cross-Disciplinary Academic Professional Learning and Development in Higher Education

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Abstract Continuing professional learning and development (CPLD) in higher education is critical for improving the quality of teaching. Major change or crisis events often bring to light the need to upskill teaching staff to manage successful transition through those periods. When the COVID-19 pandemic caused our institution to pivot to emergency online teaching and learning, we identified a need to provide additional support to academic staff as they moved to online teaching. We introduced an approach called Share Sessions, where staff presented their innovative online teaching practice in a Zoom session. In this chapter, we introduce the Share Sessions as an informal cross-disciplinary approach to CPLD. We report the results of in-depth interviews with ten academics who presented in the Share Sessions. By employing hermeneutic phenomenology as an overarching research methodology, we thematically analysed the interviews and categorised the data into three broad categories: academics as connected learners, community of practice, and sense-making of informal sharing. Suggestions are provided for implementing this approach with a three-step process of planning for before, during, and following the Share Sessions.

1 Introduction

In this chapter, we introduce a continuing professional learning and development (CPLD) approach called *Share Sessions*, implemented at the University of Sydney Business School (USBS) during the crisis period when the COVID-19 pandemic caused our institution to pivot to emergency online teaching and learning. USBS is one of the highest-ranking business schools in Australia and a global leader in business education. Whilst blended and online delivery modes are used, more traditional

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face-to-face teaching methods are the 'norm', and the pandemic seriously challenged our thinking about quality online learning and teaching.

The Business Co-Design (BCD) unit is a mix of professional and academic staff covering a range of roles from educational development, learning design, and media production to educational research and evaluation. The three authors of this chapter are affiliated with this unit, whose main aim is to focus on strategic and innovative educational development initiatives such as the Connected Learning at Scale project (Wilson et al., 2021; Wardak et al., 2021). During the Covid-19 lockdown period, the staff in this unit pivoted to support our Business School colleagues as they transitioned to emergency remote teaching (e.g. Zeivots & Shalavin, 2021).

One of the support channels that BCD offered during the pivot was the ability for staff to share practice informally with their colleagues in the Business School. These sessions ran every few weeks via the online web conferencing platform Zoom. The format of each Share Session was three short (5 min) presentations from academic staff on how they were teaching online. The Share Sessions were facilitated by Educational Developers who invited questions for discussion, both verbally and through the text chat function. In the context of our organisation, Educational Developers are academic staff who are tasked with supporting educators to improve their teaching and course design practices. More broadly, they are referred to as academic developers and often have research and teaching commitments (Aitchison et al., 2020). There were about 30–40 attendees at each of the 11 Share Sessions we facilitated, and all Business school staff were invited. Whilst the sessions were introduced at the Faculty level as a response to the pandemic, extensive positive feedback from teaching staff has led us to continue with them embedded in a wider programme of CPLD.

1.1 Literature Review

CPLD in higher education is critical for improving the quality of teaching. A report by the Grattan Institute on the status of teaching at Australian universities highlighted that academics often have little or no preparation for teaching and that they are expected to develop this crucial skill on their own with limited support (Norton et al., 2013). In addition to lack of time as a key constraint, casualisation of teaching staff was another restriction identified by the report, which limited the possibility of developing a more systematic approach to CPLD. Two later reports (Norton & Cakitaki, 2016; Norton et al., 2018) found that three relevant aspects linked teaching quality to improved student satisfaction: teacher training, connecting teaching performance with academic promotions, and research into teaching methods.

Australian universities have generally followed the UK Professional Standards Framework (UKPSF), offering teaching staff professional learning opportunities through a number of centralised qualifications including formal courses (Jacob et al., 2015). These one-size-fits-all models often fail to target specific learning needs of the staff (Layne et al., 2004). The Grattan Institute report (Norton et al.,

2013) supported this point and recommended that CPLD needs to be designed and implemented around teachers' specific needs and that the teachers should have the opportunity to apply what they have learned. Our Share Sessions are filling this important gap by offering staff the opportunities to observe practice and discuss their own issues with colleagues.

Surveying academics from 31 institutions across the UK, King (2004) reported that the top three forms of CPLD frequently undertaken by academics included discussions with colleagues within their department, networking with those from other institutions, as well as supporting colleagues to develop their own teaching. Surprisingly, participating in workshops was in sixth place while studying or holding a learning and teaching qualification came in at eighth. This indicates that academics often prefer learning scenarios that offer opportunities to connect and are tailored to their specific needs. It seems that informal opportunities such as 'brown-bag' lunch meetings (Sambell et al., 2017) and conversations between peers remain a prominent form of CPLD for academics (Crick et al., 2021).

According to Roscoe (2002), CPLD is often focused on three main areas of professional learning: extending technical knowledge and skills, development of personal transferable skills such as teamwork or problem-solving, and development of managerial skills. Our Share Sessions are primarily concerned with the first type, developing technical knowledge and skills and links to wider contexts of pedagogical knowledge and sharing teaching practices. This form of CPLD is often taken spontaneously in relation to specific needs (Roscoe, 2002), which in our case came to light in the wake of having to teach online during the COVID-19 pandemic. There was a need for USBS academics to explore Zoom and other technological teaching tools and learn how to apply them to online delivery more efficiently. In our context, where most of the teaching was conducted in face-to-face mode on campus, the change to online teaching was felt strongly and required a tailored CPLD approach. This is in line with the literature that notes that many academics who have little or no experience with teaching online simply translate their face-to-face teaching strategies to the online environment (McQuiggan, 2012). It is thus important to provide tailored CPLD opportunities for academics if we wish them to provide quality online learning experiences for their students. Such CPLD approaches can add disciplinary nuance and appeal to differing levels of online teaching expertise. An added benefit is that when academics learn how to teach online, they also reflect on and consequently improve their face-to-face teaching (McQuiggan, 2012).

The idea of learning through a Community of Practice (CoP) (Lave & Wenger, 1991) is well established in the field of education. A CoP requires an event (e.g. Share Sessions), leadership (our Share Session facilitator), connectivity (our Educational Developers who helped build a rich fabric of connectivity (Wenger, 2000), membership (our teachers), projects (our pivot to online teaching), and artefacts (our teachers' stories, video recordings as future resources). Warhurst's (2006) study showed that new pedagogic meaning and practice can emerge through academic dialogue and recommends that academic developers should prioritise the facilitating of meaning-making among cohort peers. Reilly et al. (2012) found that careful planning is needed to execute CoPs for faculty CPLD successfully and that

they are best accomplished with a team approach. Our Educational Development team achieved this through collaborative discussion and knowledge sharing of colleagues' practices.

The strategic importance of online learning has led many universities to implement innovative and efficient approaches towards improving academic CPLD. In addition to visible physical and logistical implications of the sudden move to online mode, there have been less obvious factors that affect the quality of teaching and learning. Sudden transition can situate many academics as novice learners in a new environment and affect their motivation and emotions (Lockee, 2021). In fact, teaching can become emotionally charged with anxiety and fear when teachers must change their practice and professional responsibilities, particularly in the transition to online teaching (Scott & Sutton, 2009). A systematic review by Philipsen et al. (2019) concludes that individual professional development components like context, teachers, and student learning matter; however, other studies (Newell & Bain, 2020) argue that so do collaborative components. They should all be seen as interrelated rather than separate from one another.

2 Methodology

The investigative focus of this study draws on hermeneutic phenomenology as an overarching research methodology to ensure a close examination of academics' experiences and insights of Share Sessions. It is an approach that, on the one (phenomenological) hand, focuses on the lived experience of humans and their perceptions (Langdridge, 2007), and on the other (hermeneutical) hand, involves interpretation and application of their lived experience (Schmidt, 2016).

In this study, combining phenomenology and hermeneutics helps recognise the dynamic, complex, and situated experiences educators talk about in Share Sessions and examines how they make sense of these experiences. The rationale was to give voice to the presenters and illuminate their perspectives, values, and sociocultural aspects (Adams, 2013).

To investigate the impact of and experiences from Share Sessions, ethical approval was granted to conduct in-depth interviews with the presenters of the sessions. The interview consisted of three parts: revisiting lived experience in a Share Session, linking this experience to CPLD, and providing overall feedback on Share Sessions. Ten presenters participated in the interviews from across eight disciplines within the Business School. The interviews were transcribed, and thematic analysis was carried out using manual coding (Saldaña, 2009). The three authors of this chapter worked in parallel to code the shared body of data and then came together to clarify interpretations and juxtapose various perspectives. In the next section, we present some of the prominent themes from this interview data and then discuss their relevance in contemporary online CPLD.

3 Findings

From the rich data that was collected, we present three broad categories and associated underlying themes. Quotation marks and indented texts indicate excerpts from interview transcripts.

3.1 Academics as Connected Learners

The largest category that appeared from analysing the interviews was related to learning. This learning for academics happened on three broad levels, described here as themes. The first theme was *learning from others*. For instance, when asked why they participated in the Share Sessions, one interviewee stated, "I wanted to see if I can learn from others – what tricks there are – because I know there are some teachers in the Business School … that's what they're really good at. Best learn from them." Most comments in this theme were about academics trying to learn how others had solved problems that they themselves faced.

The second theme was *helping colleagues learn*. In this theme, the interviewees exhibited an explicit awareness that others attending or presenting at the Share Sessions were also learning. Some interviewees stated that this was a motivating factor for them when they decided to present at the Share Sessions: "I really feel motivated to be able to help people have their own 'a-ha' moments." Another interviewee stated that they had made some changes to their assessment that proved successful, "I suspected that other people would be facing similar challenges, and it might be a useful idea for other people."

Another aspect was linked to *dealing with challenges together*. Share Sessions were a safe space to discover how others struggled with online teaching, learning management systems (LMS), and Zoom. At least four presenters shared genuine care for fellow colleagues in sharing what worked well in their early pivot to online teaching: "I really wanted to get that [good practice] out to help people." For more than half of interviewees, these sessions sparked a conversation that continued afterwards. In one instance, the discussion was taken to a weekly departmental discipline meeting: "Some of my colleagues from the accounting discipline were there and spoke to me at our coordinators' meeting … about some of my ideas and copying them over into their units."

The third theme was learning as a result of *self-evaluation and reflection*. Share Sessions participants could observe different teaching and technology strategies and practices online. At times that led to discussing similarities and differences across different disciplines in the Business School and how best to address common challenges. This was a source of self-evaluation and reflection on one's own academic practices. There were two main ways that self-evaluation and reflection were evident. One was in response to conversation with others:

> I find that it [Share Session] does start that conversation … where people contact me and go, 'Oh, that's a really great idea! I was thinking about doing that. Do you think I could do it in this environment?', and 'I would never have thought about that'. And I'm like, 'Oh, yeah, let's go down that track'. So it's stretching me, and it gives me an opportunity to start the conversation, stretching what has already been done.

Another way self-reflection played out was when academics kept in mind their colleagues when they prepared presentations and communicated their findings:

> The main benefit for me, I think, was to perhaps step back, focus for a little while and pay some attention to what might be most valuable to my colleagues. So, rearranging my thoughts and putting [them] into a different style of presentation that would enable my colleagues to get some value from seeing how I'd tried some things in the past.

3.2 Community of Practice

A strong theme running through our participant interview data was the increasing occurrence of rich *discussion with colleagues about teaching*: "… I was also asking people about whether my existing approach would work online." There was an underlying need to create a space to discuss critical issues experienced by most and to leverage the power of the community behind it: "We should be having the opportunity to talk about shortcomings in Zoom, … and their design improvements." Academia has long been a 'siloed' endeavour both within disciplines and within one's own teaching space (Trust et al., 2017); it was even more apparent during COVID-19 as we increasingly conducted our teaching remotely. A number of participants emphasised the need to get the balance right between Share Sessions presentation and discussion: "I like the discussion when I go to those sessions. The more discussion we can have, the more we benefit from hearing from one another." This has always been a concern in designing CPLD sessions since academics' time for professional development is so scarce (Handal & Huber, 2011). So how best to divide and use the precious moments they have available?

Another theme in this category is the ability to develop *social processes* through a community of sharing practice. For example, when people interact in groups, they adjust and readjust their behaviour and narrative in response to the social interaction occurring in the group.

> Because we were three speakers, based on what the person before you told already, and based on the questions that they got, it shaped a little bit how the next speakers were talking. I think usual training sessions have much more of like a curriculum approach, where you go through certain sets of things that are discussed in a workshop.

There were a number of participants who suggested that the Share Sessions provided opportunities to get noticed, "not knowing many people before, we all went on Zoom; it was a good way to actually meet people" and to build connections. At times, participants experienced a sense of coming together: "At the end, we all stayed behind, and we high-fived each other on the screen … I find being involved

in those sorts of things, the camaraderie you get is really lovely. It's terrific. I get a lot out of it."

3.3 Sense-Making of Informal Sharing

Share Sessions were commonly seen as an *informal space* to aid CPLD. The informality of these discussions was highlighted as beneficial in comparison to presenting more formal research-based findings: "You want to have more of an informal discussion … and less about how we use this methodology." The format and audience of the sessions were described as "not a formal training environment," "voluntary," "more relaxed," and involved specific characteristics such as "people trying something new" and "explaining it in a simple way." Informality was also described through limited hierarchy and authority. Some presenters saw themselves as participants who not only presented but also listened to and learned from others, enabling a more personalised CPLD experience. Share Sessions were praised for using a bottom-up approach as presenters were invited to share experience to address issues immediately relevant to their teaching. Although some Share Sessions had naturally emerging themes such as student engagement and assessment, other Sessions were not theme-driven.

Sharing the presentation and receiving feedback were regarded as helpful and often led to enriching professional practices. The prevalent view was that presenters heard from other people who provided them with "feedback about what I was doing. They were suggesting potential alternatives and new directions." One presenter was motivated to understand their practices at a deeper level and ready to have critical discussions. After working in one space for a long time, they reflected, "It's really good to be challenged on what leads you to this way, why didn't you go that way?" One participant believed that academic staff have limited knowledge about initiatives or research outside their familiar circle of colleagues. Share Sessions were a useful way of "bringing it back to people – make sure that what you're doing is still legitimate and has value outside of your small cohort."

Frequently, Share Sessions were described as building cross-disciplinary community and attempting to extend disciplinary silos. According to participants, "you hear what people are doing, particularly in other disciplines"; breaking the boundaries of disciplines "it means that I can, as a qualitative marketing unit, go and talk to … who's in accounting … neither of us would ever have thought that there was something [in common]"; and promoting a bottom-up approach "encouraging people to offer something which may not fit the themes." These narratives indicate that there was an interest and need to explore good practice from disciplines across the Business School.

The benefits of the informal sharing were associated with "room to make mistakes," where presenters can be "more candid and frank" and "more casual and open to conversation and feedback." The online environment offered new avenues to connect, which were unlike face-to-face CPLD workshops. "Something that really

surprised me," revealed an interviewee, "you don't get to do the chit chat only on the way in and the way out [of face-to-face training], but you do get to do the chit chat the entire [Share] Session." The academic was hopeful that their students practised similar informal chat conversations to discuss content and assignments. The interviewee was impressed by the frequency of informal chats during the Share Sessions and is considering ways to integrate informal student conversations when they return to a face-to-face context.

4 Discussion

4.1 Impact

Our findings indicate that Share Sessions were a successful CPLD intervention that left an overwhelmingly positive impact on participating staff. The pandemic crisis that resulted in the pivot to online teaching and learning presented academics with a need to learn (Roscoe, 2002) and urged them to connect. The online mode was the primary option to do so, and Share Sessions were embraced as a medium to connect through discussions on practice and professional development.

Learning was among the main benefits of participating in Share Sessions. In addition to learning from, and helping, others to deal with teaching challenges, which were prominent avenues to learn, emergent learning was often linked to a community of practice. The need to talk to someone and get peer feedback were common motivations to participate and present in Share Sessions. The impact of interaction was pivotal and led to genuine exchange and synergy: "There was a lot of real enthusiasm to learn. There were lots of questions being asked. There was a lot more interaction, even with people without [their] cameras on." This aligns with the systematic review by Kyndt et al. (2016), which validates that sharing, collaboration, and interaction are significant informal learning opportunities. They conclude that academics learn from the interplay between individual and shared activities rather than one or the other.

Interestingly, Share Sessions uncovered sociocultural vulnerabilities of university structures and practices such as individualised academic work and limited knowledge of activities occurring outside one's unit. The Sessions were not necessarily seen as a solution, yet they provided an opportunity to observe emerging practices beyond existing silos and hierarchies. This demonstrates that building skills for quality teaching and learning online can benefit from being cross-disciplinary, a finding supported by a recent study in higher education (Beaumont, 2020).

Initially, Share Sessions were built as a space for academics to share their experience, especially on overcoming challenges or on teaching successes. Although Share Sessions had a simple structure – three presenters, 5-min sharing, discussion – they did not have a well-defined agenda or must-cover topics, nor an explicit

link to CPLD. As a result, presentations and discussions covered a variety of topics that appeared more multifaceted or cross-disciplinary. Looking at a sustainable learning trajectory, we observed that presenters mentioned Share Sessions as the first point of interaction with others. At times it triggered further exchange of resources and materials, and practices were shared within and across disciplines. Informal conversations, networking, and reflections on academic staff's own work were mentioned as other longer term CPLD benefits. The authors observed that during and after Share Sessions staff asked for permission, and granted access, to view each other's LMS sites. Before similar practices were scarce, and sessions encouraged more open and transparent sharing, which now has become more common in USBS. In another instance, a Share Sessions presenter illustrated how to embed a Padlet in the LMS. Following this presentation, at least two large subject coordinators with over 1500 students used this strategy to incorporate the collaborative tool in their LMS.

Participation in Share Sessions also helped academics to better understand online learning from a student's perspective. For example, teachers hoped that students engaged in similar peer chats during online classes as academics did during Share Sessions. This indicates that after presenting in Share Sessions academics can better empathise with their students and their journey through learning.

4.2 Transferability

The idea of Share Sessions is relatively straightforward to set up and is not time consuming for the organisers nor the participants. Delivering Share Sessions through the very platforms that teachers are learning to use for their teaching can achieve two goals at once: practise use and build community. Due to the flexibility of videoconferencing tools, participants can easily share a range of practices through shared visuals, LMS examples, and useful resources and links. Share Sessions are particularly beneficial during unexpected or crisis situations when teachers experience significant changes and are time-poor or overloaded with new information. Studies have shown that innovative practices can and do take place in such trying circumstances (Ellis et al., 2020). In addition, Share Sessions offer informal opportunities to discuss, practise, and reflect – all important contributors to CPLD.

4.3 Implementation

Finally, we provide practical steps on how to implement this approach and what we have learned from this process. There are essentially three parts, which include planning for before, during, and following the session.

1. Before the session, contact the potential presenters and invite them to share their innovative online teaching practices, tools, or ideas. In our context, Educational Developers were best placed to use their knowledge of current practices, speak to colleagues to find suitable case examples, and then invite them to present at a Share Session. We recommend someone in a similar, preferably academic, role as this approach ensured that we attracted a diverse set of quality presentations. We organised 30-min sessions, which included three short presentations as well as time for questions and discussion. This attracted a time-poor audience and encouraged the presenters to focus on specific practical aspects that would be of benefit to others. Academics were encouraged to use visuals and show real working examples.
2. During the session, the Educational Developers acted as facilitators to keep time, manage the flow, engage the audience through probing for questions, and facilitate discussion (Warhurst, 2006). This worked well since the facilitators had already built a rapport with the presenters and were often involved in helping to decide suitable topics for, or takeaways from, presentations. The informal format of the Share Sessions fostered lively discussion, which often continued well beyond the session. Frequently, it resulted in further conversations between members of different disciplines who may not always have such opportunities.
3. Following the session, with the permission of the presenters, we uploaded the Zoom recording and presentation slides, which included the presenters' contact details and any accompanying resources on our dedicated LMS page. We pursued this with an announcement to remind staff of the resource availability. This enabled further contact and point of reference, particularly for members of different disciplines, to continue their academic CPLD. The Share Session materials are now used as a CPLD resource on our dedicated LMS site with 381 enrolled staff.

5 Conclusion

In conclusion, we found that Share Sessions are a timely and practical solution that can be easily implemented in a CPLD programme and contribute to cross-disciplinary learning. From our dataset of presenters' reflections, we extrapolated three overarching benefits of Share Sessions: academics as connected learners, community of practice, and the value of leveraging opportunities for informal discussions and creating camaraderie to overcome challenges together.

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Informal, Grassroots Online Professional Learning: The Experiences of Teacher Educators

Tara Harper and Richard Holme

Abstract Teacher educators, charged with teaching teachers, can overlook their own Continuing Professional Learning and Development (CPLD), instead relying on learning through doing the job (Swennen A, Shagrir L, Cooper M. Becoming a teacher educator: voices of beginning teacher educators. In: Becoming a teacher educator. Springer, Dordrecht, p 91–102, 2009). The unique circumstances of COVID-19 meant that most teacher educators had to act quickly and adapt face-to-face teaching for online delivery. In addition to the challenges posed, this presented opportunities to learn and develop new skills and knowledge. This ranged from fostering small-scale professional learning communities (Wenger E. Syst Think 9(5):2–3, 1998) to much wider, informal networks of educators learning from each other. The global education community quickly mobilised and offered online seminars, conferences, and training sessions in ways that had never been seen before.

As teacher educators, we explore our personal experiences of engaging with a wide range of grassroots CPLD (Holme R. Grassroots teacher professional development: how and why practitioners are taking ownership for their development and learning. PRACTICE: Contemporary Issues in Practitioner Education. Retrieved from https://doi.org/10.1080/25783858.2021.1882265, 2021) during COVID-19. The development and execution of an informal Professional Learning Community (PLC), working to support school teachers, is then analysed using a research method including reflective writing and a nominal group technique interview (Cohen L, Manion L, Morrison K. Research methods in education, 7th edn. Routledge, Abingdon, 2013). Common themes from the project and evidence from other informal learning experiences are identified, so other tertiary educators can plan their own CPLD and facilitate online grassroots learning opportunities for their peers and students.

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1 Introduction

In early 2020, the unique circumstances of COVID-19 meant many teacher educators had to act quickly and adapt face-to-face teaching for online delivery. For many teacher educators, this was a challenging experience, while others responded as 'gourmet omnivores' (Joyce & Showers, 2002) embracing every opportunity to learn and develop their online teaching skills. This was not an equitable situation as many teacher educators already worked online, so they had engaged in Professional Learning Communities (PLCs) or networks that are facilitated online. Therefore, for some, the ideas explored in this chapter may not be new. However, the unique situation surrounding COVID-19, specifically the requirement to move teaching online, became an area of common ground between school-based teachers and higher education-based teacher educators. This led to far greater interest in professional learning and networking opportunities by the wider education community, ranging from fostering small-scale professional learning communities (Wenger, 1998) to much wider, informal networks of educators learning from each other.

This chapter explores a case study of the professional learning experiences in which we, two teacher educators based within higher education in Scotland, formed a Professional Learning Community (PLC) for practising teachers and teacher educators, from which tertiary sector educators, including teacher educators, can learn. As all university teaching moved online in March 2020, we had to react and respond quickly. Simultaneously school-based teachers across the world were coping with the same challenges but often had to cope with less experience of delivering teaching online or remotely. We saw this as an opportunity to draw on our own experience and knowledge and share this with school-based teachers by instigating and leading a PLC. It transpired, however, that the sharing of knowledge and expertise was not one-way, and the PLC quickly evolved into what could be defined as a Community of Practice (Wenger, 1998), with ourselves and the participating teachers learning together. We covered topics ranging from equality, diversity, and discrimination, alternative approaches to teaching reading, to approaches to online teaching.

1.1 CPLD of Teacher Educators in the Tertiary Setting

The importance of Continuing Professional Learning and Development (CPLD) for teachers is well documented (Cordingley et al., 2015; Timperley et al., 2008; Weston & Clay, 2018). Despite the importance of teacher learning, some teacher educators may overlook explicit CPLD and instead opt to learn through doing the job (Swennen et al., 2009). This might seem paradoxical, as those immersed in the theory of learning and teaching should be those most likely to engage with this themselves. However, this lack of obvious clear engagement with CPLD may be because teacher educators have embedded this in their practice. It should be acknowledged that,

because the role of a teacher educator is varied (Swennen et al., 2009), the opportunities for professional learning are wide ranging. These can include more formal training, attendance at seminars or conferences, engagement in research activity, publications, or editorial work (Srinivasacharlu, 2019), which do not match the traditional transactional forms of teacher professional development (Kennedy, 2014). With the move to online learning, teacher educators have been presented with a new opportunity to engage in practical and theoretical CLPD utilising experiential learning (Kolb, 1984), as we found through the formation of an online PLC.

1.2 Teacher Educators' Engagement with Online Learning Opportunities During COVID-19

Prior to COVID-19, we, as teacher educators, engaged with a wide range of self-directed learning (Rogers, 2014), grassroots CPLD (Holme, 2020), and other more formal learning opportunities. At the onset of the pandemic, the global education community quickly mobilised and offered online seminars, conferences, and training sessions to support teachers. For example, in the UK, organisations such as the Teacher Development Trust, ResearchEd, and teacher-led grassroots events, such as TeachMeet and #BrewEd (Holme, 2020), made CPLD freely available for educators. They offered free online interactive webinars, including presentations and panel sessions from influential educators, such as Daniel Willingham and Dylan Wiliam, and discussion groups focussed on effective learning and teaching against the backdrop of the sector-wide move to online learning. Although these events were predominantly aimed at teachers, they were also accessed by school leaders, policymakers, educational consultants, and teacher educators. We were no exception and took advantage of these opportunities to learn alongside colleagues and peers from across the globe.

As this CPLD was all delivered online, and often facilitated via social media, as was the case for the teacher-led conferences like UKEdChat (UKEdChat, 2020) and BrewEd (Egan-Smith & Finch, 2018), engagement with these opportunities presented us with the chance not only to gain new knowledge and understanding but to learn new skills directly applicable to teaching and learning online. The research we discuss later in the chapter identified that we experienced the efficacy of the format, structure, and delivery of these conferences and used these experiences to identify aspects of good practice that we could utilise in our context. Our experiences, and anecdotal evidence from those attending these events, suggested these were largely positive experiences and demonstrated how CPLD for tertiary educators could be developed to engage a wider, broader, truly global audience.

In addition to our experiential learning about learning and teaching online, we both engaged with, and embraced, specific in-house training as provided by our host institution's Centre for Technology and Innovation in Learning, which supports staff with digital tools and services for learning and teaching. As a result of this

informal CPLD, not only were we learners during the in-house training, but we were able to share with our peers our analysis of being consumers of online CPLD and what that might look like in more formal learning situations.

Our engagement with online learning opportunities and the time we could commit to this spurred us to consider how this might be of use to others beyond our students and peers, for example, school-based teacher educators.

2 Professional or Teacher Learning Communities

The idea of groups working together, beyond normal professional or organisational boundaries, identified by Wenger (1998) in a range of settings and professions beyond education is termed as Communities of Practice (CoP). In the education sector, this idea has developed over the last two decades to be badged as Professional Learning Communities PLCs) or Teacher Learning Communities (TLCs). As a result, most experienced educators will be aware of the concept of educators working collaboratively and will have curated their own professional or teacher learning communities. There is a wide body of research literature that presents a positive view of the impact of PLCs and TLCs from authors such as Forde & McMahon (2014), Stoll et al. (2006), and Vescio et al. (2008); in addition, Hargreaves (2003) highlights PLCs to avoid quick fixes or superficial change by building communities of practice that increase and sustain professional skill and capacity.

However, in some cases, these professional learning communities evolve organically and do not follow established boundaries and hierarchies, leading to a blurring of the traditional relationships among internal school groups and their relationship to the wider learning community (Stoll & Louis, 2007).

It was this unstructured, pragmatic model, crossing educational boundaries, that we utilised to extend our own professional learning network, with a conscious eye kept on developing sustainable change in, and application to, practice.

2.1 Online PLC Design and Description

The PLC was initiated so we could help our own development whilst giving practising teachers support with the move to online learning during the COVID-19 pandemic. Specifically, we wanted to understand the issues and adversities that colleagues in schools were facing. In contrast to attending formal training, for online learning, this allowed the learning to have immediate impact for all of us as participants, so was a form of action research (Cohen et al., 2013), where there would be a mutual benefit for the researchers and participants.

The PLC was housed online, using the Microsoft Teams platform, which we all accessed via the National Education Intranet for Scotland (known as GLOW). Members were invited to attend via personal contacts and Twitter, and a range of

materials were made available to anyone that joined the group. Once the PLC was established, regular live webinar style sessions were planned, which we ran weekly for around 90 min each time. Although the PLC group included over 50 registered members, the live sessions were typically attended by fewer than 10 teachers and us.

The online, informal sessions explored a wide range of topics and subjects in a discursive, dialogic, or dialectic manner and facilitated meaningful reflection (Pollard et al., 2014). The specific subject focus was dictated by the attending teachers, but with a key focus on delivering online learning and the use of digital technology, which the teacher educators then researched and planned sessions on for subsequent meetings. As the project continued, some of the participating teachers began to lead sessions drawing on their own expertise, allowing us to learn alongside and from the other participants. This was a key factor in the evolution of the PLC, and topics under discussion ranged from teaching about diversity online, inspired by the Black Lives Matter campaign, to the logistical challenges of remote teaching of outdoor learning during the lockdown, thus providing an impetus for us to access and engage in CPLD on topics with which we were less familiar.

2.2 PLC Impact on Participants

To evaluate our experiences of the PLC, and learn from this for the future, we utilised written reflective summaries of our experience and then engaged in a facilitated discussion, which was chaired by another tertiary education professional. This was a variation on the nominal group technique (Cohen et al., 2013) and a small-scale group interview (Gibbs, 2012). As we were the focus of the research, this qualified as informed consent and initial discussions focussed on our learning experience, with the interview process developing inductively (Cohen et al., 2013). The discussions were recorded (using video software), and the transcript was analysed, alongside the reflective summaries, by us both to identify key themes. Although we were the focus of the study and were attempting to understand our learning, we also drew on anecdotal evidence of the positive experiences of the participating teachers, whilst being conscious of being objective and avoiding potential bias towards being overly positive about the project.

2.3 Learning from the PLC for Tertiary Educators

The main finding from this study was how we developed knowledge and experience of learning and teaching online. Whilst we undertook learning about teaching online from formal in-house training, informal CPLD opportunities, and from experiencing what it was like to be a learner in an online environment, it was not until we had to dig deeper into our own understanding to be able to support others in contextualising learning and teaching online in their environment, that we truly began to

appreciate the similarities and differences between online learning and teaching and in-person learning and teaching.

A key aspect, which is important in both the online and in-person environment, is explicitly attending to the development of relationships. In an online environment, this is more challenging because of the lack of visual cues or not being able to have incidental or informal interactions; however, as individuals are sitting on their own in front of a computer, building relationships and developing a rapport and a sense of community is probably more important in the online space.

Additionally, our reflections resulted in several sub-findings:

- The importance of being free to engage outside normal systems or hierarchies
- The impact of the size and scale of the PLC
- The impact of the differing experiences and learning of the teacher educators

This learning provides valuable insights for other tertiary educators, especially those planning to utilise a PLC approach for their own and colleagues' learning.

Initially those involved (both us and other PLC participants) had time to develop and build relationships as there was no formal requirement to complete activities or tasks for the PLC. This is different from the one-off formal CPLD, which, it could be argued, is not actually 'continuing' at all. This lies at the transactional end of the professional development (PD) spectrum and is common across the education sector (Kennedy, 2014). In contrast, this relational factor gave all those involved the time to learn and to understand the challenges, e.g. technology issues that others were facing, which enhanced the sense of community. This led to a feeling that, although circumstances were different for everyone, people were doing what they could. This encouraged us to invite participants to ask questions and be more likely to admit where they needed support. This may be a challenge for some working in tertiary or higher education, especially if time is limited and external performance metrics are being imposed, and so it is essential leaders and managers provide this space.

By engendering a sense of community and building relational trust, participants felt they could share their concerns and challenges, which enabled us to gain an authentic view of the teachers' experiences and what development and training were needed. In a normal lecture-based situation, tertiary educators may assume everything is progressing positively, although this may not be a reality because students may be reluctant to say when they are struggling. Within the PLC, as the relationships developed, we felt more comfortable prompting and challenging the other participants. For future this has shown how we must be prepared to work at building relationships before expecting authentic and honest discussion.

Further developing this point, the fact that the PLC operated beyond the typical hierarchical systems appeared to allow trust to develop quickly, which was further enhanced when all participants, including the teacher educators, demonstrated mutual vulnerability (Tschannen-Moran, 2014). Those involved in tertiary education must ensure that students have faith in their own expertise, knowledge, and skills but be aware that some students may be wary of openly acknowledging a lack of knowledge. As the PLC developed, we became more willing to embrace this lack

of knowledge, encouraged by the community, less hierarchical, relationship and thereby deepen our learning. A challenge for tertiary educators is to embrace the community element and resist the urge to compete and be 'the expert'.

We identified the importance of the size and scale of the PLC as being a crucial factor. The online group included over 50 members, but fewer than 10 joined us for each 'live' session. Some participants only joined one or two sessions, whereas others became regular attendees and contributors. Initially for us, this was slightly disappointing; however, the commitment shown by the regular participants, and their willingness to contribute, showed that these activities do not necessarily need to be 'big', and the smaller more personal nature of the group enabled it to develop quickly from a 'them and us' situation to 'us' (linking to the point above about relationships).

For those working in tertiary education, especially with large cohorts of students, the importance of developing relationships cannot be underestimated, and the message may be to start small and develop PLCs or CoPs for a specific purpose, to begin the relationship-building process. This is explained by Social Presence Theory (Short et al., 1976) and the relevance of intimacy amongst participants. Furthermore, Tu (2000) argues that privacy or the perception of privacy is an important factor. The closed nature of the group may have allowed this to develop more quickly, critically for ourselves, but also for the other participants.

A final point to note from this case study was the way in which we both had slightly different experiences of embracing learning. For one of us the requirement to research and learn new topics, beyond their area of expertise, to share with the PLC created some pressure, whereas for the other this was motivation. Within higher education, and the tertiary sector, practitioners often encounter imposter syndrome (Bothello & Roulet, 2018); therefore, it is essential that anyone utilising the PLC approach acknowledges the concerns and anxiety that individual members may face. The key factor of community, discussed earlier, may help address this as the PLC develops and becomes established. One thing we both had in common was that we recognised how the PLC encouraged us to investigate and learn about new ideas, subject areas, and teaching approaches, in particular online methods and tools. For others working in the tertiary sector, this highlights the value of engaging and embracing informal CPDL as it can provide the opportunity to both broaden and deepen professional development and learning.

2.4 Impact of the PLC in Tertiary Educator CPLD

Through the development of this PLC, and learning from other informal CPLD opportunities, we benefited in several ways. We already had experience of leading professional learning but little experience of doing this online. The requirement to navigate and learn more about online learning provided a genuine long-term, positive impact. For those engaged in online tertiary education, this illustrates the potential benefit of experiential learning (Kolb, 1984) where there is more focus on the

process rather than the product of learning. To do this effectively, those involved may have to consider their own attitudinal development, which is often overlooked with traditional CPLD (Evans, 2014).

Although we formed the PLC with the initial aim of supporting teachers, it quickly evolved into an opportunity for everyone to learn from each other. We immediately recognised that the project presented a chance to learn and develop knowledge and skills. The biggest impact has been our shift in perception that the teacher education process does not need to be hierarchical. This was helped by the fact that the group was informal and ran alongside online teaching of pupils (in the case of the teachers) and preservice education students (in the case of us as teacher educators). The informality of the group, coupled with the need to learn quickly (due to the pressure of COVID-19), meant less focus on formal learning outcomes giving freedom to explore areas that mattered to all the participants.

As the first UK lockdown ended in late 2020, the teachers returned to teaching in their schools and the PLC was paused. However, after a short time, the group reconvened and were able to provide further support to each other, but rather than focusing on learning, the function of the PLC was to provide a safe space in which to air anxieties and frustrations and seek advice. For us, this was a valuable opportunity to maintain the relationships and gain valuable insight into how the teachers were coping and applying learning from the PLC. The PLC continues to operate in a less formal manner, with one of the major benefits that it has allowed us to continue with our own informal learning. This highlights that this learning has indeed been continuous, and not a one-off experience that sometimes is the case with tertiary education professional development.

3 Recommendations for Successful Online CPLD

Although our discipline is teacher education, the general lessons learnt could be applied to other subject areas including educational psychology, health studies, and social work, specifically where a sense of community and collaboration is key. In addition, tertiary educators in unrelated sectors, for example, natural science, business, or law, could adopt the recommendations from this example. All the key findings are general and therefore transferable elsewhere regardless of the tertiary or higher education subject specialism.

First, the issue of permission or control – including the reduction of the risk of doing things ‘wrong’ and removal of formality and hierarchy – should be factored in when planning for professional learning. This requires tertiary educators to reflect and, if necessary, challenge themselves and their beliefs. The online nature of delivery may reduce the feeling of hierarchy and formality and additionally may provide previously unavailable access to professional learning that is relevant, motivating, and engaging for individuals. Put more informally, tertiary educators, from all sectors, are encouraged to embrace the chance to learn and become ‘gourmet omnivores’ of CPLD (Joyce & Showers, 2002).

In addition, all the participants and facilitators in online PLCs need time and space to foster relationships and develop effective approaches to delivery alongside relevant content. A better understanding of theory, such as Social Presence (Short et al., 1976), could facilitate this. Ultimately the message here, especially for educational managers and administrators, is to encourage honest reflection that informs planning and to trust the participants to lead the learning. This may sit at odds within some sectors (e.g. medicine and business studies) where staff are under pressure, and who are 'time poor'. Therefore, it is more important that those facilitating let go of their own personal agenda, giving time for participants to have genuine ownership over their learning. It is important, as this case study shows, to have some degree of structure, in this case provided by the GLOW intranet site, and clear aims and objectives. However, this should not be overly complex, or restrictive, as it may discourage active participation.

Our own experiences detailed in this chapter have shown that genuine two-way collaboration is required; otherwise, there is the potential not only to stagnate development but to damage it to the extent it regresses (Bevins & Price, 2014). Collaborators must live their principles, *walking the walk*, rather than simply *talking the talk*, requiring time and effort to foster trusting relationships that lead to genuine collaboration.

A further consideration when fostering learning communities or networks is for all participants to remain objectively critical about their relationships and continue to challenge themselves and each other. By engaging in this critical relational edge, participants are less likely to do what they have always done and maintain the comfortable, possibly uncritical, status quo (McArdle & Coutts, 2010) and for PLCs to become echo chambers. Cultivating a critical eye may come naturally to educators linked to certain professions or subjects, such as natural sciences or philosophy, but for others, they may need to examine their own epistemological and ontological positions.

In conclusion, the formation of a PLC can provide impetus, and in some ways the permission, to actively engage with CPLD. Even though all participants were juggling personal circumstances, such as home-schooling their own children whilst teaching online, they appreciated the opportunity to collaborate in a less pressured environment. This was facilitated by a sense of genuine ownership and a sense of belonging to the PLC; for anyone attempting to encourage this model of online CPLD, this may be the biggest challenge. For those in the tertiary sector leading online CPLD, consideration should be given to how opportunities to develop and evolve are encouraged, as well as how to ensure engagement in the learning process is continuous and never-ending.

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Supporting Emergency Remote Teaching via a Responsive Professional Development Support System

Jennie Roloff Rothman, Ryan Lege, Euan Bonner, and Masaaki Ishii

Abstract This chapter outlines the design and implementation of an emergency remote teaching (ERT) online support system at a Japanese university. In response to the COVID-19 pandemic, the authors, holding the unique position of overseeing professional development and technology, immediately began preparing a training program for teachers to accommodate shifting to online teaching. The authors developed a holistic continuing professional learning and development (CPLD) support system in order to prepare over 70 lecturers for the transition. The approach employed was based on core principles of Drago-Severson's learning-oriented model of adult learning (Leading adult learning: supporting adult development in our schools. Corwin Press. https://us.corwin.com/en-us/nam/leading-adult-learning/book230518, 2009), alongside the concepts of distributed leadership (Spillane J, Distributed leadership. Jossey-Bass, 2006) and leadership-as-practice (Raelin JA, Leadership-as-practice. Taylor & Francis, New York, 2016). By conducting ongoing needs analysis throughout the semester, the support team was able to establish a dynamic, responsive system capable of evolving as needs arose. Teachers were surveyed to collect their feedback, and their suggestions for improvement were implemented. The lessons learned here may serve as a foundation for the development of dynamic CPLD programs that prioritize educators' needs.

1 Introduction

This chapter outlines the design and implementation of an emergency remote teaching (ERT) online support system at a Japanese university and discusses the effectiveness of the methods employed for the continuous professional development of educators in their online teaching. The authors, holding the unique position of

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overseeing professional development and technology support, immediately began preparing a training program for teachers to accommodate shifting to online teaching. Coordinated bilingual communication with university leadership, educators, and ICT specialists allowed for the development of a system that supported both Japanese speakers and English speakers, thus ensuring all university educators had access to ERT support. Conducting needs analysis and feedback surveys throughout the semester allowed for the establishment of a dynamic, responsive framework capable of evolving as needs arose. This chapter will focus on the support systems, English-speaking educators' perceptions of the system, and lessons learned. Finally, the chapter will conclude with how this case study has informed ongoing CPLD at this institution and how it may be transferable to other teaching contexts.

2 Literature Review

Truly effective continuing professional learning and development (CPLD) in education, recognized in both Western and Japanese literature, must be context-specific and based on the needs of the school and students (Diaz-Maggioli, 2004; Guskey, 2003; Kinugawa & Tachi, 2003; Arimoto, 2005). In addition to its being tailored to the institution, Guskey (2003) determined the following elements as being characteristics of effective professional development:

- Enhancement of teacher knowledge (content and pedagogic)
- Promotion of collegiate and collaborative exchange
- Providing sufficient time and well-organized resources
- Alignment of reform with high-quality instruction
- Building leadership capacity

There is also extensive research recognizing a positive connection between mentoring or improved teacher leadership and meaningful CPLD, as they contribute to sustained collective, collaborative practices such as adapting existing materials for online use (Guskey, 2014; Vernon-Dodson & Floyd, 2012). Supportive environments can also implement Drago-Severson's (2009) pillar practices: mentoring (experienced educators supporting newer ones), collegial inquiry (also known as reflection or reflective practice), creating leadership roles (providing growth opportunities), and teaming (collective decision-making, for example, about instructional design). Furthermore, rather than leadership being top-down or centralized, reconceptualizing it as *distributed leadership* and *leadership-as-practice* recognizes that the work of leading an organization or activities is often a democratic, community effort that supports the growth of all parties involved (Raelin, 2016; Spillane, 2006). Content and pedagogical knowledge are also critical in CPLD (Crandall & Christison, 2016; Richards, 2010). These beliefs and approaches formed the foundation of the CPLD system described in this research and guided preparation for the rapid transition to online learning (Hodges et al., 2020). It also strove to foster the

growth of ICT literacy through higher order creation and evaluation activities (Churches, 2007; Puentedura, 2006) using digital technologies.

3 Context and Background

The focus of this case study is a private, four-year foreign language university in Japan. At this institution, students can learn a variety of languages but must also take compulsory English language courses. For context, the bulk of the first- and second-year courses are taught in English by fluent or L1 speaker English lecturers, predominantly non-Japanese. As most do not speak Japanese, this situation necessitates English-medium professional support (Kushida et al., 2018). The support described in this chapter is provided by two professional development specialists, one focusing on information and communications technologies (ICT) and the other on teacher development, as well as two members of the university's technology research center.

3.1 Support at the University Level

As countries around the world went into lockdown, the authors of this chapter began closely observing educational approaches, as well as teacher and student reactions to sudden shifts to online learning. It was particularly important to address teachers' need to get up to speed with online methods of content delivery, models, and methodologies. The authors compiled resources introducing the different online approaches (synchronous, asynchronous, hybrid, hyflex). Sessions were held explaining the benefits and drawbacks of each online education method, and teachers were able to comment, ask questions, and provide feedback on the different models. This step was crucial as it empowered teachers by allowing participation in the decision-making process. Following this, a plan was drafted to employ a combination of asynchronous and synchronous online delivery to help teachers manage their workload as well as help mitigate the cognitive demands of online learning. Furthermore, Zoom was chosen specifically because its breakout room features best-allowed core curriculum activities to be carried out with minimal changes. With a model and vision in place, the administration decided to significantly delay the start of the semester allowing for the preparation and training of faculty. The university-wide online transition team was divided into groups that ran three support tracks simultaneously: support for new students, current students, and faculty. The decision to focus on all stakeholders simultaneously was made in accordance with literature that recommends a more holistic approach, which grounds professional development in student needs (Gelles et al., 2020; Holloway, 2003). To support faculty, a website was built as a central hub for information concerning the

basic structure of online classes, how to design them, and information about the digital tools available to implement them smoothly. In addition, online workshops were held three to four times daily over a period of a month to give teachers the opportunity to become familiar with the online tools that would be used to facilitate classes at the university. In these sessions, mock online classes were created, and Zoom breakout rooms were demonstrated, with teachers participating in the role of student or teacher as they preferred.

3.2 English-Medium Support

Initially, all lecturers were presented with an in-depth plan describing the format of online lessons and given ample opportunity to ask questions, comment, and suggest revisions to the initial plan. Documents created by the support team suggested modifying the curricula to adopt a 50% synchronous to asynchronous balance as well as reducing the duration of synchronous sessions to a length of 45–60 min. This is in line with literature about the unique cognitive demands of online lessons (Hollis & Was, 2016). Additionally, during the first week of preparation, the online support team provided academics with a detailed CPLD support plan featuring not only a schedule of workshops, consultations, and support sessions but also resources for familiarizing themselves with online teaching and learning. This structure aimed to prioritize lecturers' professional autonomy by providing a basic framework within which to adapt and plan their lessons. That is to say, it avoided overly prescriptive guidelines while giving those preferring structure something concrete to work within. Following orientations on the relevant online tools, the next key step in the support plan was to support teachers in adapting course materials to fit the online context, which was done by grouping teachers for collaborative materials adaptation of the core courses.

Course coordinators mediated the groups and gathered input from the lecturers about their needs and concerns. Following this, a series of workshops were conducted under the principle of distributed leadership (Spillane, 2006), which recognizes that leadership can be an organizational quality that is spread across multiple leaders, structures, and situations. The workshop series began with peer-led sessions, which aimed at increasing the base of expert knowledge. They focused on how to maintain the current curriculum through the effective use of appropriate online tools. Teachers trained in one session thereafter led question and answer sessions for other teachers. In conjunction with this, an English-medium online hub was created in the recommended learning management system (LMS) for questions and materials sharing. By participating, teachers learned how to use this LMS, building skills they would eventually need for their lessons. Following workshops on online tools and teaching methods, question and answer sessions were conducted to help teachers more concretely consider how to adapt their classes. In the final preparation week, practice sessions were scheduled for every teacher to practice online teaching with other teachers acting as students.

Through the variety of workshops, resources, and practical opportunities to practice and develop skills, the hope was that teachers would be prepared. However, it became clear that once the semester began, the busy routine of teaching, giving feedback, and planning would necessitate even more support for teachers. Providing support to teachers teaching from home without the capacity for informal in-person interactions was a huge challenge. The ongoing support system would need to reach as many teachers as possible while being dynamic enough to fit the varied demands of adapting a system, curriculum, and pedagogy to a new paradigm.

3.3 During the Semester

In order to reach as many teachers as possible while utilizing everyone's knowledge, a real-time support chat was created in addition to the English-medium support hub and email. For the week of the semester, the online support team managed this chat, handling teaching or tech support issues and any time-sensitive queries. Subsequently, the online support team sought the assistance of the university's computer committee. Committee members made sure there was at least one person available during teaching hours to assist with time-sensitive issues. This would allow for dedicated teachers with specific skills and knowledge to provide support to the community. Teachers were also encouraged to utilize the same chat application as an additional communication avenue for their students. The computer committee also provided regular assistance in the support hub, which was used by many teachers institution-wide to share ideas or materials and get advice about specific issues relating to the teaching and learning process.

To continue addressing teachers' longer term professional development, the teacher development specialist provided a set schedule of office hours. Unlike previous years, setting specific availability was deemed more suitable for the online context. During these appointments, lecturers discussed, among other things, classroom practices, publication opportunities, and participating in the academic community. Hearing and responding to the needs of both teachers and students as the semester progressed was critical to making sure that as many voices as possible were heard and that their needs were shared and addressed.

Three confidential surveys of the English-speaking teaching staff were conducted throughout the semester. Surveys for Japanese faculty and the student body were conducted in a similar manner. The teacher and student survey results were shared university-wide. These surveys helped identify common issues and helped the support team to provide potential solutions. This was an important way of connecting teachers and helping them to better understand how to improve their lessons using everyone's collective experiences.

To manage the curriculum, the role of course coordinators was further adapted to the online situation. More distributed leadership was implemented as an approach to gain buy-in from course coordinators, making them more involved in key decisions than previous years. Meetings were held to gather coordinators' (and through

them, teachers') opinions on how best to adapt the courses and deal with potential challenges. One idea implemented from coordinators was to group teachers by the level of students they taught to encourage collaboration and reduce redundant materials development.

4 Methodology

As previously mentioned, a key part of the support structure implemented throughout the semester involved conducting needs analysis through regular surveying of the teachers. The initial surveys informed adjustments to the system in place to meet current needs. The final survey contained similar questions to prior ones, with some additional focus on the overall experience of ERT (see Appendix).

Open-ended survey items were analyzed using thematic narrative analysis to look for patterns in the data. This allowed the voices of respondents to determine the emergent themes (Barkhuizen et al., 2014). Approaching data analysis with pre-set themes would have resulted in crucial feedback and points for improvement being overlooked. The survey data gathered were used to answer the following research questions:

1. What were teacher perceptions of the support provided?
2. What specific benefits of the support did teachers identify?
3. To what degree did teachers feel successful/comfortable with their online teaching?

5 Analysis and Discussion

Out of 68 people in the department, 39 (57%) responded to the survey. Respondents indicated that overall, they were satisfied with their online teaching, and 2.5% (1) were extremely satisfied, 40% (16) were very satisfied, and 55% (21) were somewhat satisfied. Only one respondent indicated that they were somewhat dissatisfied.

Also, 82.5% (33) of respondents indicated that the delayed start was sufficient for preparing online lessons; however, many recognized its limitations when it was unclear what they were preparing for. One teacher commented, "I am new and had an extremely difficult time at the beginning but now that it's over, I feel much more prepared. If we are online again next semester I will be more confident." Teacher responses indicated that, unsurprisingly, teachers with different teaching and planning styles responded differently, though, on balance, most were positive about the experience. For institutions considering delayed starts to prepare for unexpected circumstances, it is important for both administrators and educators to remember that preparation time, while helpful, may be of limited use, so expectations should remain realistic.

5.1 Issues Experienced During the Online Semester

When asked to indicate where they had significant issues, teachers seemed divided on how they felt. Likert scale data about adapting materials for online learning indicated 36% (14) had no issue, 23% (9) rarely had issues, 38% (15) reported occasional issues, and one reported significant issues. However, one-third (7 out of 21) of the open-ended comments focused on the struggles they had, specifically regarding the time it took to prepare, adapt, or create materials from scratch for the online context. One teacher said, "I am trying to re-think the course from the ground up for online-only. It takes time." Another remarked, "I think rather than adapting materials to online contexts, I tended to create new materials instead. It was easier to start from scratch … than to try to change something intended for a traditional classroom to an online medium."

The time issue was borne out repeatedly over the semester in anecdotal comments received or via the distributed leadership structure of courses. While the support team endeavored to create a system that encouraged adaptation of existing materials, depending on the curriculum, this proved more or less practical. Some courses easily lent themselves to online instruction, such as the writing or reading courses, while others that were based on classroom group or pair interaction were more challenging. Program administrators should keep such factors, as well as the requisite preparation time, in mind when placing demands on teachers in unforeseen circumstances.

5.2 Reflections on Successes and Challenges

When respondents were asked to explain the successes and challenges of the semester, a number of themes emerged. Only those which seemed to directly link to the support program implemented are included in this study. More specifically, teachers shared their positive perceptions of how classes ran or how well they felt they utilized technology. Several teachers stated that "the semester went better than expected." Others noted that they experienced "smoother integration of technology [as they] became far more adept at using existing tech."

Regarding challenges, teachers experienced issues with time allocation, both in the personal and professional spheres. Some lamented the excessive planning time needed, while others identified missed opportunities for synchronous teacher–student interaction. One educator noted:

> I'm really disappointed that I wasn't able to spend more time interacting with students one-on-one or in small groups. At the beginning of the semester, I thought I would be able to arrange tutorials to make sure students were proceeding OK, but with the workload it would have been extremely difficult.

For others, this also translated into delays in returning work to students or providing assessment on certain tasks. As the amount of marking grew, they noted that work/

life balance suffered. Again, administrators should anticipate the real burden of online education and work to provide support that can mitigate time demands. Suggestions include setting realistic work expectations and encouraging workplace collaboration to reduce materials production burden.

5.3 Perceived Helpfulness of Activities and Level of Support

Overall, teachers felt supported, with 10% (4) indicating that they felt extremely supported, 59% (23) very supported, and 26% (10) somewhat supported. The remaining 5% (2) said that they felt somewhat unsupported. When respondents were prompted to make additional comments or indicate what other support they would have liked to receive, two themes emerged: opinions regarding specific online professional development support activities and appreciation for the support provided.

Teachers identified several support activities and tools as being helpful. The English-medium online hub and tools-focused workshops were described as "helpful, especially at the beginning of the semester." The just-in-time tech support provided through the chat group was "extremely useful in helping to solve tech issues in a timely manner" and even considered "a good idea" by those who did not participate. Another noted that "teacher surveys helped me to reflect on how things were going and … reaffirm that things were progressing positively." One person, however, did comment that "when the online shift started, there was an overabundance of articles published on how to adapt … many were commonsensical, vague suggestions that didn't actually help with developing an online curriculum." This highlights the importance of institutions carefully curating the type, quality, and quantity of tools made available when providing information and resources for CPLD to be effective.

Many respondents also expressed appreciation for co-workers and the support provided. "Having small groups to work with on each course was extremely helpful, and I'm very glad we had that," remarked one educator; while another commented that "the PD and … management staff … have done a great job under extremely difficult circumstances … [They] made very quick and strong decisions, and that meant I was able to concentrate on what to teach, rather than how to teach." One teacher was "very thankful to be working within such a professional environment during these difficult times." That so many educators recognized the challenge of the situation and the work being done for their benefit is encouraging for the field at a time when negativity would be understandable. Carefully selecting context-relevant activities and making clear decisions will be helpful not only for institutions looking to provide quality CPLD but also for their educators as they can focus on teaching better rather than getting overwhelmed by teaching situations.

The cumulative results of this survey allowed the authors to evaluate the effectiveness of the program implemented in the first semester and also provided insights into what support was needed or desired for the second term. The results informed

a reflective document shared ahead of the break between terms. This document contained advice on home teaching, solutions to common problems, ideas for making online activities more interactive, links to resources, and tips on maintaining mental and physical health. Without the feedback received, the online support team would have been unable to focus this document on the areas most salient to teacher needs and requests. This gave teachers resources to better plan for future online teaching. Though this was specific to the context described in this paper, the practice of summarizing and documenting practices to share internally and externally is a universally useful approach.

6 Lessons Learned

On the whole, the support offered contributed to a successful transition to online teaching. The approach pursued highlighted the importance of distributed leadership (Spillane, 2006) and teaming (Drago-Severson, 2009) for getting teacher buy-in and providing a level of support that would be impossible for an individual or small team to offer. Distributing leadership roles contributed to the development of a more democratized model of CPLD, where the voice of the teachers informed the support provided. This approach ensured that more of the teachers were invested in the outcomes of the CPLD support and contributed to the services offered. Furthermore, this model helped facilitate the collection of feedback, which guided decisions concerning the support already provided and what was further needed to meet teachers' needs. To accommodate this feedback and change loop, CPLD approaches need to have flexibility ingrained in their design. Had the authors designed a set plan with little room for adjustment or modification, they would have been less able to respond to the constantly evolving situation.

The team further realized the importance of offering a variety of support that was accessible in multiple ways. No single approach, no matter how well designed and executed, can reach and be effective for every teacher (Guskey, 2014). Especially in a dispersed online environment, it is easy for people in need of support and training to fall through the cracks. If both communication and training are conducted through various channels and methods, the odds of successfully reaching more educators are greater. This was achieved by reaching out through regularly scheduled meetings and also providing informal drop in session hours.

Within this disparate environment, casual, spontaneous in-person interactions were not possible; rather, CPLD support had to be carefully organized, scheduled, and carried out in a formalized manner. Essentially, every interaction became a meeting. Creating opportunities for drop-ins was found to be an adequate middle ground between scheduled online meetings and unstructured free-form in-person exchange. The teacher development specialist offered weekly regular drop-in office hours twice a week, and informal lunch chats were hosted by different teachers each day. In this context, providing these office hours and lunch sessions appeared adequate, but this system could have been organized more effectively. To encourage

greater participation and reach more teachers, perhaps having the teacher development drop-in hours distributed among senior lecturers would have been better. Institutions could do well to implement a more flexible system involving more teachers and more opportunities for informal interactions.

While flexibility is key to effective CPLD, setting certain boundaries in an online environment is also important. One challenge unique to the online environment is the separation of personal and work life, or the lack thereof. Establishing strict work time boundaries by limiting after-hours email communication and discouraging off-the-clock work interactions are effective ways to promote a healthier work–life balance. This can not only protect teachers' mental health but also reduce self-imposed pressure to keep working. It also has the added benefit of reducing stress on those providing support to said teachers.

Challenges notwithstanding, the support team found that many CPLD practices developed in response to the pandemic were not only useful for that context but could be applied in the future as well. Distributing tasks and responsibility to a wider base of teachers, who may be outside of the institutional leadership structure, could form an important base for future CPLD offerings. It is clear that going forward, online education will remain an important component of higher education in most contexts and CPLD practices based on meeting its unique demands will thus be vital. Looking towards an uncertain future, where circumstances may continue to drastically alter both the means and mediums of education, CPLD efforts need fluidity to adapt to changing contexts. Flexible approaches focused on empowering and enabling individuals will be key to CPLD that can deal with the demands of a changing world.

Appendix: Summary of Relevant Questions from the Final Survey

Survey Items
1a. How satisfied are you as a teacher with your classes this semester? (6-point Likert scale) 1b. Were the three additional weeks in April enough time to prepare for lessons? (Yes/no plus open-ended) 1c. Any additional comments about the above two questions? (Open-ended comments)
3a. Were any of the following significant issues during the semester? (4-point Likert scale for each item) • Creating asynchronous materials • Instructions and scaffolding • Communicating with students when they are in breakout rooms • Providing opportunities for students to talk to peers • Providing opportunities for students to talk to the teacher • Managing Google Classroom • Adapting materials to the online context 3b. Any additional comments about the above? (Open-ended question)
4. What do you think went well this semester? (Open-ended question)
5. What do you think went poorly this semester? (Open-ended question)
7. To what degree were the following helpful (4-point Likert scale, "did not participate" option added): • English-medium online support *Google Classroom* • Real-time tech support *Line OpenChat* • Workshops • Zoom practice lessons • Open PD office hours • Teacher surveys • Student survey results
8. How supported did you feel overall this semester? (Open-ended question)
10. What comments or feedback do you have? What help do you wish you had received? (Open-ended question)

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Part IV
Personal 'Inside-Out' Experiences of CPLD

Pathways to Creative Learning and Teaching Online: An Ecological Model

Robyn Philip

Abstract Higher education practitioners may find that conceptualising and developing an online course is challenging at the best of times. Given the context of the Covid-19 pandemic and the recent accompanying changes to educational provision, more than ever we need assistance in envisaging and creatively shaping our pedagogical approaches for the online learning environment. Models that help us visualise learning designs, support us as creative teachers and contribute to our continuing professional learning and development needs (CPLD) may be particularly useful. Much can be learnt from the creative approaches of exemplary practitioners in the field. Examples from practice, CPLD principles, and adaptable learning designs are all useful tools to support praxis and enrich experience.

In this chapter, I share an ecological model for designing for creative online learning that can also be used as a prompt for CPLD activities. The model is derived from lessons learned from practitioners in Australian higher education and illustrated with international examples of online adaptations implemented during the Covid-19 health emergency.

1 A Model for Creativity Online

From my years as an educator, I have learnt that some of the most useful insights into the problems of course design arise from my own observations of colleagues and mentors around me. While the literature in this domain is always useful, reflection on practice and practice-based research has provided invaluable opportunities for developing my own and colleagues' approaches to learning and teaching. Whether that has been through informal discussions, or systematic observation and data gathering methods, I have learnt that success in learning and teaching,

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especially in online environments, has much to do with a readiness to be creative, a sense of oneself as a creative teacher, awareness of context, and a willingness to search for pathways to overcome obstacles. This means making new conceptual connections, reframing problems, taking risks, and exploring novel approaches and spaces. This has particularly been the case when I have designed for creative online learning, where moving from theory to practice is particularly complex.

There is always a need to better understand how educators go about designing for learning and tease out the influences on their praxis. Researchers such as Agostinho et al. (2018), Ellis and Goodyear (2019), and Laurillard (2013) have recognised this in the past. My research also speaks to this problem, and by directing a lens towards exemplary creative teachers, I have distilled four key elements that influence their design approaches. The elements are represented here in an empirically based model that applies to fully online settings and blended and face-to-face contexts. The concepts also serve as useful foundations for designing continuing professional learning and development (CPLD) pathways.

There are many models for designing for online learning and learning with technology. They may be (1) *conceptually* based, such as Laurillard's (2013) conversational model and Oliver and Herrington's (2003) learning activities, resources, and supports model. Or (2) *process orientated*, such as the ADDIE model (analysis, design, development, implementation, and evaluation) (Molenda, 2015), Conole's (2015) 7Cs of learning design (conceptualise, create, communicate, collaborate, consider, combine, and consolidate), and Seeto and Vlachopoulos's (2015) collaborative curriculum development model.

Design for learning and learning design may refer to both the *products* of designing for learning, such as models and replicable learning design patterns, and the *process*es of creating pedagogical experiences and activities (Goodyear & Retalis, 2010; Philip, 2018). These patterns and models vary in scope, granularity, and detail and reflect the context from which they were derived. They also reflect the underlying epistemology and pedagogy of the authors and may or may not have an empirical basis (Bower & Vlachopoulos, 2018). While a single model or pattern may not provide all the answers, what is captured may nonetheless be useful. Hence, the empirically based model presented here is timely for its focus on creativity as an element of design.

1.1 Virtual Creativity and CPLD Practice

Learning to teach creatively is challenging (Morin et al., 2018; Philip, 2015b), and approaching this in virtual environments under pressure imposes new and significant problems (Schwartzman, 2020). Forced to adopt emergency remote online learning arrangements, faculty may understandably have mixed feelings about the disruption accompanying this digital transformation (Brooks & McCormack, 2020; Schwartzman, 2020). We must now find creative ways to sustain relationships and connections across a range of domestic, institutional, and global learning spaces and

simultaneously demonstrate high levels of digital technical efficacy. Circumstances force us to closely examine the way we do things, how we create and use knowledge, the conduct of our relationships, and what we value (Bina & Pereira, 2020; Fazey et al., 2020). Therefore, as creativity is integral to all learning and teaching (Freire, 2005), creative models are surely welcome that scaffold and inform our pathways through these challenges. Each discipline will have preferences for approaching CPLD and learning design methods and models, however, and this needs to be acknowledged in any strategies we adopt (Cameron, 2017; Fry et al., 2014).

1.2 Definitional Complexities

For the purposes of this chapter, online learning refers to courses (units or subjects) that are predominantly internet-based and incorporate synchronous and/or asynchronous methods of communication. Blended learning is a combination of face-to-face and online delivery and interaction methods. Both terms can be viewed as subsets of umbrella terms technology-enhanced learning (TEL) and e-learning. Not surprisingly, attempts to define any of these terms are problematic and difficult to unravel (Rapanta et al., 2020).

By comparison, the term creativity is even more difficult to pin down. It is similarly confounded by personal, historical, and social values (Csikszentmihalyi, 2007) and evolves over time. In higher education, the concept may be hidden within generic capabilities such as problem-solving, innovation and design, and communication and thinking skills. It is also subject to various forms of expression across disciplines. For example, it might be about 'thinking, moving, being, expressing yourself outside the square' (as an early childhood educator has defined it); or 'the ability to imagine and express new ideas, or new ways of connecting ideas' (engineering educator); 'creating something from nothing' (architecture); 'exploring the least travelled road' (fashion); or 'the ability to extrapolate ideas, constructs, concepts' (health) (see Philip, 2015a, p. 328). Lately, however, the concept typically incorporates notions of novelty and originality and/or value and appropriateness (Glăveanu & Kaufman, 2019). Higher education practitioners struggling for a definition may even simply say, 'I don't know how to define it, but I know it when I see it!' (survey participant, Philip, 2015a, p. 328).

Importantly, creativity is not only about the process of coming up with new ideas (divergent thinking), but it is also about making choices regarding which ideas to pursue and what ideas have value (convergent thinking) (Fryer, 2012). To design for creative online learning and CPLD, we need both modes of thinking. We not only need to imagine multiple options to overcome problems in the design process, but we must also evaluate and discriminate amongst those choices. For example, when selecting tools for an online course, we do not need to use every digital tool available or every social media channel. The challenge is to explore widely (engage in divergent thinking) and then be selective (employ convergent thinking).

Creativity is impacted by the environment and requires challenge, autonomy, and resources (Amabile, 1998). We currently have more than enough challenges to overcome. So as online designers, and to foster our own CPLD, we need to work on finding and generating resources, building creative spaces, and developing creative self-efficacy and autonomy, within the boundaries that make creativity possible.

2 An Ecological Model

As a support for creative design approaches and CPLD, the following ecological model may be relevant (see Fig. 1). The aim of the model is to capture essential elements that require our focus when designing for online learning using a creative lens. It is based on findings from a mixed-methods study that gathered insights on the topic from a range of higher education practitioners (Philip, 2015a, 2018). Participants in the study came from a variety of disciplines. The methodology included survey methods and descriptive statistical analysis; the case studies included were analysed via constructivist grounded theory methods (Charmaz & Thornberg, 2020). Participants for the case studies were invited from the creative industries and humanities. While other researchers such as Agostinho et al. (2018)

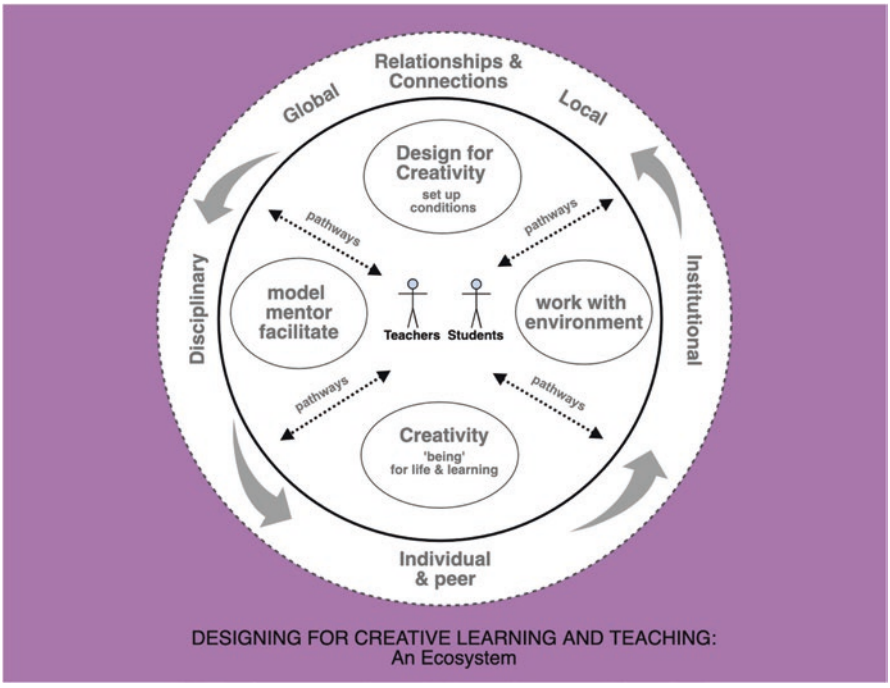

Fig. 1 Designing for creative learning and teaching in higher education: an ecosystem

have, for example, examined teachers' approaches to design from the perspective of the *supports teachers need and use*, my discussion relates to the *methods of creative teachers,* the lessons learnt from their approaches to designing for online learning, and CPLD ideas derived from that (see Fig. 1). Practical examples referred to in support of the model are selected from the study, my own experience, and recently documented developments brought about due to the extraordinary circumstances of the COVID-19 pandemic. Pseudonyms are used for all interviewees quoted in this chapter.

Figure 1 shows four key elements that impact the creative design process: (1) creativity as a way of being, a whole of a person, dispositional concern; (2) effective creative design for learning; (3) strategies for working with, not against, the environment, context, and prevailing conditions; and (4) effective modelling, mentoring, facilitating, and leading creative learning and development. Efforts to adequately represent this complex ecosystem are fraught because of the myriad interconnections between elements: between things and people. An ecosystem implies a living system, one that is not static, but is flexible, and subject to change over time as conditions and elements evolve. Change to any one element, activity, or approach impacts other elements. Boundaries are porous and mutable; relationships and connections are fluid. The system is influenced by the strength and/or weakness of connections. This reflects individual dispositions and preferences, relationships (local and global), the impact of institutional policies and practices, and networks beyond the immediate learning and teaching environment. The four key elements of the model also provide focal points on which to build CPLD practices.

2.1 Key Element 1. Ontology: Being Creative for Life and Learning

Exemplary creative teachers bring a creative mindset that holistically and fundamentally influences their approach to life, learning, and teaching. They nurture creativity at the centre of their being, bringing enthusiasm and passion from their creative lives to the task of learning and teaching. Their beliefs about creativity, learning, and teaching are examined and intertwined. They establish creative habits that are productive (Tharp, 2003) and continually develop their disciplinary and educational techniques, skills, and knowledge. They embody three key personal characteristics that Amabile (1998) argues, amongst other things, are important for creativity: domain-relevant skills, creative skills, and intrinsic motivation. They also demonstrate a Freirian (Freire, 2005) approach to learning and teaching that is transformative. Their powerful creative energy feeds their CPL development and spills over to those around them, motivating students, tutors, and colleagues. Whatever their chosen medium, whether that be visual, textual, social action, or embodied practice, they are leaders and influencers on many levels: with

individuals, peers, disciplinary and institutional colleagues, and, increasingly, with international connections.

Peer learning is a powerful resource for creative CPLD, and enthusiasm is catching. I formed a very productive relationship with a peer who taught drama in the early childhood faculty at our university. She became a powerful advocate for online learning, despite her early conviction that it was not possible to teach a practical course like drama online. After a hesitant start, our peer-to-peer collaboration and CPLD partnership grew, and we effectively shared skills, knowledge, approaches, strengths, and weaknesses over many years. As a result, we created several highly successful and well-documented online courses (e.g. Nicholls & Philip, 2012). Our research methodology was typically an action research one (Kemmis, 2009), underpinned by ongoing reflection on professional practice (Schon, 2011). Importantly, one of the drivers of our productive partnership was her inexhaustible enthusiasm as a creative educator.

Research with peers is a creative endeavour and can be playfully serious (James, 2021), as well as an empowering form of CPLD. As one exemplary course coordinator I interviewed said: 'It's not just one way, you know' (Alex, sociology), meaning that engaging in reflective practice with peers is mutually beneficial.

Similarly, another tutor I interviewed reflected: 'I guess it's just a lovely opportunity [being interviewed], because most of the time I don't get to talk about my experiences in teaching, and yet I love it so much … I can't imagine doing anything where I wasn't doing this' (Beth, online tutor, creative writing). This demonstrates a yearning to share experience and, sadly, a sense of professional isolation.

2.2 Key Element 2. Design for Creativity Online: Playful CPLD and Generative Spaces

As well as building on a solid foundation of core educational design principles and online learning facilitation techniques (e.g. see Rapanta et al., 2020), creative teachers know the importance of the affective domain for learning: they value play, humour, and laughter. The role of play is undervalued in higher education (Koeners & Francis, 2020), despite evidence that positive emotions associated with play can enhance social and cognitive processes and support confidence and engagement. Play takes many forms, and during periods of remote learning, play can be a welcome antidote to the effects of social isolation and mandated lockdowns. Play is known to facilitate divergent thinking and insight (Russ, 2003) and provides opportunities for reframing perspectives and practices, experimentation, combining and recombining ideas in novel ways, reflection, and dialogue.

An example of play, and a 'getting started' activity to ease students into the online environment, is one implemented in Leo's (pseudonym) photo imaging course. In this fully online course, undergraduate students from a range of disciplines and age groups are required, from week one, to quickly learn to manipulate a

sophisticated graphics program (Photoshop). They are provided with only a few instructions and restricted to a small set of image-making tools selected from a large suite. For their first individual task, students are required to experiment and rapidly generate multiple visually interesting images. The aim is to promote play and build confidence and autonomy, plus creative and technical fluency. It is a non-assessable, fun, low-stakes task, designed so that students are not overwhelmed by the affordances of a complex software package. Students learn quickly and autonomously that their first response is not always the best one. They also learn how to create their own generative space. Generative space may be physical, virtual, affective, and/or cognitive. As educators, we can borrow and adapt the principles from this example for our own purposes, introduce more play into our courses, and use the strategies for CPLD activities.

Further to this, the importance of space, cognitive, physical, and emotional, in the online environment is crucial. Seelig (2012) tells us that we are actors in any space that we enter. We ourselves generate stories about spaces and construct personal narratives in which we play implicit and/or explicit roles. In thinking about online courses we have observed or participated in, we might reflect on the stories we create for ourselves, and those that have been created for us. Are we engaged in dull page-turning spaces, content dumping grounds, or endless one-directional web conferencing sessions? Or are we immersed in inspiring, imaginative, dynamic spaces, full of dialogue and mystery, that breathe life into learning, inhabited by learners with a range of perspectives, challenging us with their contributions?

An example of a shareable learning design pattern is provided in Fig. 2. It is derived from Leo's digital imaging course, where students were tasked with creating a digital journal to demonstrate and critique their image-making concepts, as well as divergent and convergent thinking. Creative processes and relationships between teachers, students, and peers are indicated in the pattern. A related CPLD activity would be to share and discuss this design with peers from a range of disciplines and reflect on the differing responses that arise.

2.3 Key Element 3. Work with the Environment

The circumstances of the pandemic may have influenced some of us to feel we are working against the environment, but creative teachers are adept at working *with* the environment. Two key aspects of this are the ability to rapidly reframe problems as opportunities and to resiliently forge pathways through disruptions and technical roadblocks. For example, because of restrictions on international travel, study abroad programs have had to be re-imagined. One instance of this was a collaboration in the health sciences between academics at Purdue University in the USA, and partner colleagues in India, including the National Institute of Speech and Hearing (NISH). Determined to provide the valued intercultural experience of learning across cultures despite disruptions, these paediatric audiology teachers created a blended learning virtual study abroad program. Communication technologies

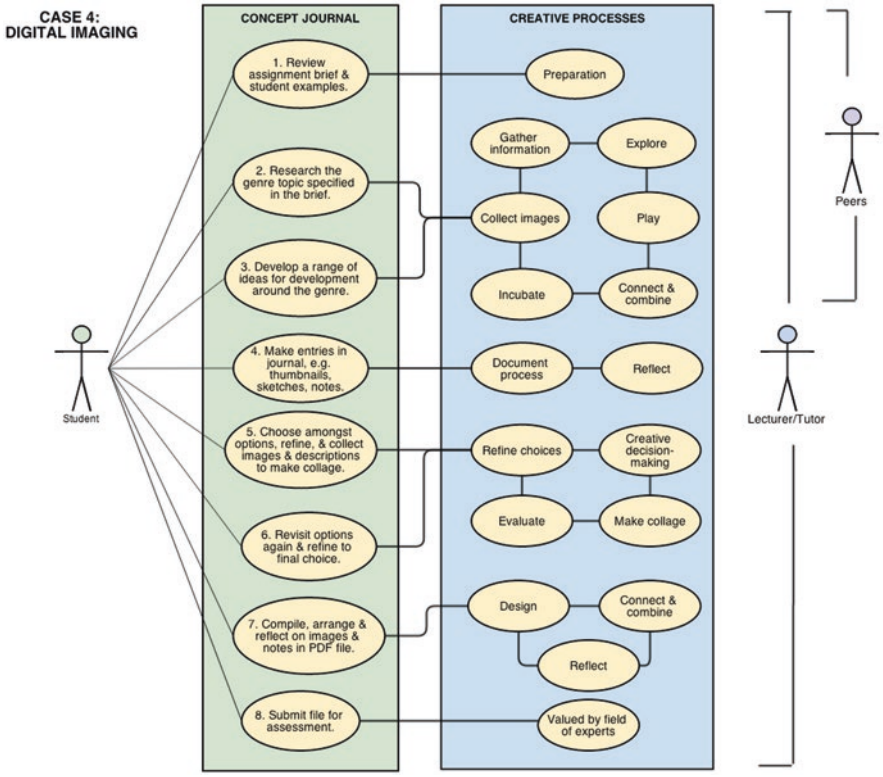

Fig. 2 Learning design pattern for a digital imaging concept journal task. (Source: Philip, 2015a, p. 185)

included pre-recorded content and live audio and video communications channels. Interactions were both group facilitated and one-to-one. The peer-to-peer, 'buddy-system', connecting Purdue and NISH student dyads was claimed to be a key success factor (Krishnan et al., 2021). Cultural differences were reframed as assets and pathways found through difficulties such as international time zone differences, lack of geographic proximity, and non-aligned academic calendars and course syllabuses. The challenge resulted in an exceptional cross-border, peer-to-peer, cultural learning opportunity for staff and students.

Another creative response to pandemic restrictions was the recent approach taken by four architectural academics who collaborated across three continents in a peer network (Gorman, 2021). The problem was how to effectively conduct students' final-year portfolio and feedback session. Due to travel and attendance restrictions, the assessment process could not be conducted face-to-face in the physical studio environment. Therefore, synchronous, video web conferencing seemed an obvious first choice for mediating the activity online. However, as creative

teachers, they reconsidered this first option, as they had concerns with the interactions inherent in the assessment and how it might be replicated online if not adjusted.

Seizing an opportunity to transform a confrontational and judgemental 'event' into a more developmental and conversational process, they selected new strategies so the process could be conducted in a friendly and inclusive space (Gorman, 2021). They challenged and reflected on prevailing pedagogy and technology choices and reimagined the space. The assessment was consequently reshaped from an overwhelming, disempowering event, delivered by teachers and guest assessors via a single synchronous video conference, into a less threatening, longer, more considered conversation. A mix of asynchronous and synchronous technologies was employed in support of new strategies. Additionally, this transformative pedagogy was designed to be sustainable beyond the context of emergency remote teaching. And significantly, an informal, international pedagogical cooperation led to an ongoing CPLD collaboration: it became a formal, discipline-based research project about pedagogical futures for a post-pandemic world (Morkel et al., 2021). See Fig. 3 for an example of how this approach could be adapted.

2.4 Key Element 4. Effective Facilitation, Mentoring, Modelling of Practice, and Creative Leadership

The role of committed mentors and course facilitators as motivators and leaders cannot be underestimated in the online environment. It requires what Garrison and Vaughan (2008) describe as positive social, cognitive, and teaching presence. Managing evolving relationships and the demands of synchronous and asynchronous technologies and pedagogies simultaneously is constantly challenging. As one tutor, Marie (pseudonym), from Leo's course commented: 'the online thing is not suited to everyone … there are different types of students … and it is difficult to teach creativity anyway'. Marie was referring to the limitations that asynchronous teaching can impose where serendipitous questions from students about a technique or a theory cannot be immediately responded to, as you would in a face-to-face setting. A tutor in the face-to-face situation might quickly pick up a book of illustrations and talk the student through options and methods. Marie's point is that greater preparation is required for facilitating online learning. It is not that just-in-time mentoring and facilitation cannot occur, but that more planning and forethought are required to make it happen. On reflection, Marie reconsidered her comment and said: 'but we can think of other ways to do that'. Being a creative teacher, she modelled creative practice: she revisited her first response, reframed the problem, found resources to support a creative approach, and a forged a pathway through difficulties.

Goals		*CPLD and design strategies*
A creative mindset, where difficulties are reframed as opportunities for positive change.	MINDSET 	Engage with like-minded peers to work on problems, and support and sustain each other.
Awareness of the narratives teachers, designers and students create for themselves and others in new learning spaces.	NARRATIVE 	• Reflect on the design elements that reinforce traditional power structures and reduce opportunities that limit transformative learning. Think about language and technology choices. • What is most efficacious – judging students in an intimidating and stressful environment, or engaging in a conversation with them about their work in a relaxed, welcoming, and inclusive environment?
Pathways that support mental and physical well-being of students and teachers. Challenge – managed with an expectation that this is a work in progress and there may be setbacks and failures, e.g. regarding reimagining the new space, trialling facilitation techniques, establishing computer connectivity, estimating time commitments, and ensuring student and staff wellbeing. Sustainability of innovation.	PATHWAYS 	A default technology choice to underpin your teaching strategy might be to use real-time video conferencing for the whole assessment. This may be overly fatiguing and demanding of students and teaching staff. Alternatives: • Rather than conducting all assessment requirements synchronously, move some elements into the asynchronous space. This may reduce the pressure of long web conferencing sessions on staff and students. • Encourage students to practice for the assessment with a peer or 'buddy' beforehand, thereby gaining confidence with the technology, improving their presentation skills, building self-efficacy, and engaging in peer-to-peer critique. • Encourage staff to prepare similarly. Share outcomes and debrief regularly with colleagues. • During the live video conference, consider whether all assessors' and students' cameras need to be on simultaneously. Is audio sufficient from time to time? Reflect on the changes to dynamics. • Is a staged approach to introducing new practices helpful for reducing stress and anxiety – especially when there are many students to be assessed? How will you document and disseminate your findings to colleagues, and seek their feedback? • Consider sharing your rationale for pedagogical choices with students. Seek their feedback, bring them along with you, model creative leadership and facilitation techniques.

Fig. 3 Working with the environment – creating pathways. This is an example of considerations for creatively transforming a student assessment, such as a panel assessed portfolio or an aural/oral assessment, from the face-to-face environment to an online space. It is recognised that under emergency remote learning conditions this is challenging. The example builds on the work of Gorman (2021)

3 CPLD Principles

Seven CPLD principles arising from the discussion above are provided for consideration.

1. Create and support a climate of creativity in your organisation. Discover the hidden creativity in yourself and those around you.
2. Develop and strengthen creative leadership at all levels. Lead by sharing, connecting, and reflecting with others, especially trusted peers. Champion and mentor creative peer-to-peer-led CPLD activities. Establish peer interaction guidelines that promote respect, reciprocity, and confidence. Peers can be anywhere in the world.
3. Consider the language used to encourage creative practice. Adopt less confronting expressions such as 'energy', 'exploration', 'experimentation', or 'play'. It is not enough to simply ask or expect teachers and students to 'be creative' online.
4. Reframe problems and technological and resource constraints as opportunities to challenge assumptions and to design for sustainable and creative futures.
5. Creativity involves risk. Be open to explore and create new spaces and approaches, and ready to reframe 'failures' and/or first attempts as opportunities for growth.
6. Borrow, share, and play with creative learning designs and models that are customisable and inspirational.
7. Engage in research into online and creative learning, with a view to encouraging shareable and sustainable practice.

4 Conclusion

Research indicates that educators seek support for CPLD and designs for learning that is personalised and selective (Agostinho et al., 2018), as individual requirements vary over time, career stages, and according to circumstances. There is no one solution suited to every discipline. Support, therefore, needs to be contextualised. It is most effective when socially embedded and strengthened via local and global connections and partnerships (Agostinho et al., 2018). Every effort should be made to learn from and build on the work of others and foster creative leadership capability (Mallia, 2019). Educators typically look for help from trusted and credible colleagues and peers (Agostinho et al., 2018; Campbell et al., 2019). Where frameworks are introduced to teachers in a one-on-one, peer learning situation, or where a voluntary, collaborative approach is taken to professional learning, uptake and meaningful reflection on practice have proven more likely to occur (Campbell et al., 2019; Persico et al., 2020; Seeto & Vlachopoulos, 2015). In addition, an active, self-organised approach to CPLD may be more effective for professional learning than passive attendance at standardised CPLD sessions (Ehlers, 2020). We have an opportunity now to promote and lead a culture of creativity in our departments and institutions to further our CPLD.

While conceptual models and learning designs can be used to inspire practitioners' design thinking and CPLD practice, it is useful to consider these tools as part of a suite of alternatives in an interconnected ecological system that evolves over time. Whether adopted in whole or in part, these tools and strategies can be used to trigger discussion and critical reflection, challenge pedagogical approaches, and encourage reframing of perspectives, thereby generating pathways to creative online learning. Variation in the conditions for implementation, however, including institutional policies and practices, IT infrastructure, local disciplinary cultures, and professional networking arrangements will affect uptake, as will the professional development context in which strategies and resources are introduced. Nonetheless, despite the limitations of any model, the ecosystem model presented here offers some insights into a core concern of our times: fostering and designing for creative learning and teaching.

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From Physical to Virtual: Reflections on the Move from the Lecture Hall to the Digital Classroom

Moira Lafferty and Emma Roberts

Abstract This chapter describes our reflections on the lived experiences during the rapid pivot to Emergency Remote Teaching (ERT) in March 2020. Drawing on the narratives of academics from two disciplines – Law and Psychology, we focus on the Continuing Professional Learning and Development (CPLD) offered in the immediate aftermath of the initial UK lockdown. We further describe the support available to staff as they scaffolded and supported students through the transition to online learning. Such students, although accustomed social digital users, were less skilled in digital learning, having chosen to study in-person within a physical campus-based institution. We conclude by making recommendations for sustainable training and development as we move towards the implementation of a blended learning experience for campus learners.

1 Context of the Study

For those used to campus-based teaching, March 2020 marked a significant demarcation point when the familiar modus operandi changed. The established teaching framework of face-to-face lectures, seminars, and laboratory work that formed the backbone of practice for most campus-based teachers, and was especially prominent in the physical teaching of Law and Psychology, suddenly became mothballed. Online resources and learning materials, which, for many, had scaffolded the significant face-to-face interaction, suddenly grew in importance, and online learning and teaching became a necessity and one which few felt suitably equipped for. We

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frame and discuss this move as the pivot to Emergency Remote Teaching (ERT). Using the term ERT emphasises the notion of reactive and enforced change and allows us to draw a distinction between the imposed move and high-quality pre-planned online teaching (Hodges et al., 2020).

As well as the personal reflections of the authors upon their lived experience (as shared between them in recorded professional dialogue at the time), this chapter draws upon the empirical findings of an online survey that invited the views of university teaching staff who experienced the ERT transition. The survey questioned the extent to which and how development needs were addressed at that time. Participants were drawn from the subject disciplines of the authors – Law and Psychology – and were recruited online through social media and through the authors' professional networks. Ethical approval was obtained from the University of Chester's School of Psychology Research Ethics Committee and all responses were anonymous.

2 Pre-pandemic Professional Training and Development Agenda

Critically, the rapid response to the pandemic meant that many of the current practices and policy discussions that had been guiding education transformation were abandoned. Hastened implementation meant that rather than fitting with the pre-planned higher education agenda of transformation, built on evidence and best practice guidelines, the move was made in many ways without reference to these frameworks. The priority for academics was to ensure that materials were available, that classes could continue, and that studies would not be interrupted – especially in the subject areas of Law and Psychology, where the requirements of professional and regulatory bodies associated with programme validation provided further challenges.

This rapid change meant few academics were afforded the time and space to reflect or act upon critical aspects, including the moderators and mediators, that underpin successful online delivery (Means et al., 2014). Born out of necessity due to lockdown, these changes were implemented with little time devoted to understanding the pedagogical nuances, theories, and skill-sets academics needed, despite such underpinning theoretical frameworks existing and being applied globally in institutions where online learning had long been established. Furthermore, in this move, despite institutional and departmental steer on how to manage the adaptations of teaching to online delivery, the working day got longer in attempts to minimise disruption to student learning. Consequently, this meant that there was limited time available for academics to conduct their own needs analysis through personal reflection and subsequently engage with CPLD.

Ahead of the pandemic, CPLD opportunities shaped as part of structured and accredited development sessions, as well as the localised communities of practice, were largely underpinned by the UK Professional Standards Framework (UKPSF)

(Advance HE, 2011), which provides a world-recognised set of professional standards for individuals involved in teaching and supporting learning in Higher Education. In 2013, the Higher Education Academy, in conjunction with Jisc, produced guidance to support the digital capabilities of teaching staff in UK higher education. The document speaks of mapping digital skills to learning outcomes, utilising digital tools within teaching, and designing learning activities "that support the development of students' general digital capabilities" (HEA, 2013, p. 1). Much work has been done by Jisc to focus the sector on the development of digital capabilities in recent years (Jisc, 2015). As a result, the use of a Virtual Learning Environment (VLE) is commonplace across the sector; however, within our courses, it tended to be used in a way that scaffolded face-to-face sessions rather than the interface for learning. Whilst all staff were comfortable in using VLEs as a scaffolding and supporting mechanism for teaching, in the face of the rapid move to ERT, many felt that their digital skills were not sufficient to undertake the wholesale transition to online learning.

The ever-evolving nature of technology and what can be achieved using technology-enhanced tools challenged instructors' abilities to keep up with the latest developments. In some subject disciplines, ahead of the ERT pivot, little had changed in the 5 years since O'Rourke et al. (2015) had reported that VLEs were largely used as repositories for transmitting materials that accompanied classroom teaching and as virtual pigeonholes for the submission of assessments and provision of feedback. Furthermore, a lack of development opportunities, and time to engage with them, coupled with a pedagogical perspective and identity that focused on classroom transmission of knowledge contributed to feelings of unease at the ERT pivot.

Beyond the repository-like use of VLE, the proportion of fully online teaching had been (within our own post-1992 and similar institutions) quite limited in disciplines like the social sciences. The CPLD available to instructors reflected this fact. For example, CPLD opportunities tended to focus on the basic components of VLE capabilities and the use of plagiarism detection tools, for example, an approach that is said to inhibit the take-up of wider use of digital tools among teaching staff (Almpanis, 2015). At the other end of the scale, accredited CPLD programmes might entail a module focused on technology-enhanced teaching and learning, but such modules would be optional, and often the contractual requirement of passing such modules for the purpose of gaining Fellowship of Higher Education Academy or postgraduate teaching qualification, meant that some would view such instruction as something to be completed rather than a conduit to their advanced understanding of digital tools.

The *Digital lens* document contextualises the ways in which the UKPSF's values can be satisfied through the design of synchronous and asynchronous digital learning (HEA, 2013) – terms introduced into the lexicon of many instructors with the pivot to online learning as the pandemic took hold. The document speaks of creating opportunities for learners to collaborate and co-create digitally and suggests that to immerse students in learning technology they first need to receive instructional guidance on how best to engage with the technology (p. 3). Salmon's five-stage

model refers to this as the first stage of 'access and motivation', which is a critical bedrock of successful online learning (Salmon, 2004). The *Digital lens* document (HEA, 2013, p. 6) further accounts for the wider ramifications of adopting digital technologies in learning, recommending that practitioners ensure currency of practice through networking opportunities and establish a digital culture that ensures the health and well-being of staff, as well as students (p. 6). Despite the existence of this theoretical framework in policy documents and academic literature, limited attention was invested into these factors in the design and delivery of CPLD opportunities made available to instructors before the pandemic prompted a wholesale adoption of technologies that had long been available. Like students, teaching staff required entry-level 'access and motivation' (Salmon, 2004) in order to successfully engage with the available tools and thus form the foundation of successful online learning for our students and thereafter be mobilised through the remaining four stages to successful professional development.

3 Students, Teachers, and Digital Skills

In the move to ERT, assumptions were made surrounding how developed the digital skills necessary for positive academic outcomes were in our students. On reflection, we failed to acknowledge the diversity among the student body (Smith, 2012). We were perhaps guilty of failing our students, not by omitting to provide interesting content, but by assuming that the skill-set necessary to integrate and navigate the new learning world was present by the mere fact of seeing this group as everyday digital users. A point echoed by a colleague's reflection:

> … we think of our students as being digitally literate, but they are digitally socially literate and not enough thought has gone into teaching them how to become digitally academic. [Respondent T]

The skill-set with which our students entered lockdown learning was centred on social use of technology, often facilitated by smartphones and applied in an 'on-the-move' manner. Though some students might describe their digital skills as advanced, their skill-set did not equip them for the professional digital use demanded by their new learning environments. This realisation was felt on the frontline of teaching practice – as one colleague suggested that "*the biggest hurdle will I feel be getting students used to the software we will be using*" [Respondent A] – but this need for navigational orientation was not necessarily factored into CPLD for teaching staff at the time. Another colleague highlighted the personal support needed – "*… we did realise pretty quickly that students were going to need reassuring in a way they might not ordinarily*" [Respondent L] – indicating that the novelty of some technology might have taken students beyond their comfort zone and teaching needed not only to focus on knowledge acquisition but prompted too that teachers adopt a pedagogy of compassion and care. CPLD ought to have therefore focussed on ways in which to embed such compassion and care onto the curriculum of online teaching.

During the initial pivot, the CPLD available to staff was about the 'how-to' and 'doing' of online teaching. For example, the adoption of virtual platforms, such as Zoom and Microsoft Teams, meant that staff needed instructional guidance on how to operate this software. And, as the functions of these platforms expanded, CPLD would focus on the design considerations that underpinned the need to make learning interactive and engaging. For example, how breakout rooms could foster group work and how digital whiteboards could be used to share ideas. There is no doubt that this is important as exemplified in the following quote:

> My primary motivation was to maintain authenticity of the student experience. It is clear that moving online requires a focus on learning design to ensure maximum opportunity for learning gain. [Respondent H]

This understandable prioritisation on the practical failed to take account of the established theoretical frameworks used to inform online learning (Redmond et al., 2018), such as the wealth of literature surrounding communities of inquiry (Smith et al., 2017), online learning communities, and Salmon's five-stage model (Salmon, 2004). As such, it overlooked the importance of understanding the student population that we needed to take with us on this seismic shift to for them a newfound digital world.

Our reflections suggest that CPLD units and opportunities need to be more holistic, focusing not just on the development of practical skills but looking more in-depth at the changing characteristics of our students. Instructors were self-aware of the challenges of their shifting identity from classroom to online teachers, not realising in the first instance that the students' identities were also transitioning at the same time, necessitating enhanced support.

In the initial ERT transition, the barriers posed by digital poverty among the student body were underestimated. Whilst figures from the Office for National Statistics suggest that by and large most households have Internet, access problems remain (ONS, 2020). For some students, who had accessed material predominantly through smartphones using university study spaces for essay and assignment-writing, they were left with no means, save their phone, of producing assignments. Where students had moved home, digital poverty meant slow broadband and multiple users creating problems with accessing materials and download speeds. These factors were largely ignored in CPLD opportunities at the time of the initial pivot, as they were predominantly unknown. Had this been appreciated sooner, CPLD for staff could have focused, for example, on the design and development of teaching and learning activities and resources that were accessible on smaller mobile devices. In looking towards enhancing future CPLD, more attention needs to be given to aiding academics' understanding of the students in their environment. For example, one of the frustrations faced by many academics has been the synchronous online sessions, talking to a screen whilst students often do not turn their cameras on and others who sit quietly, listening but seemingly, not engaging. Academics felt frustrated and despondent, but the students may have contended with lower broadband when the camera was on or may have felt the camera to be intrusive into their personal environments.

Our experiences and those of colleagues who contributed to the survey inform that, understandably, during the initial pivot, CPLD focused primarily on the practical upskilling of staff to whom online learning was new. In doing so, such development opportunities failed to draw upon the established theoretical underpinnings of online learning. Moving forward, CPLD needs to capitalise on the existing literature that informs online learning, embracing a more holistic framework that enhances understanding of the learners and the uniqueness of individual circumstances. Introducing an element of student input into the design of CPLD would add great value to the design and utility of a CPLD offering. CPLD frameworks need to grow and embrace not merely the pedagogical behaviour of course material development, the skills to upload videos, or creating interactive materials, but look towards enhancing the understanding of diverse learners. The micro and macro influences on their social situation, their psychological needs, and, importantly, how these impact engagement, outcome, and success.

4 Development Needs and Transitioning Teacher Identity

That the pandemic has thrust instructors whose use of technology was before minimal into becoming (for a time) wholly online instructors has highlighted the need for CPLD frameworks to be developed based on an understanding of the academic, aiding them to navigate the digitalised world and dealing with the increased demands placed upon them. CPLD needs to encompass academic well-being and offer a more cohesive approach between Human Resource departments and Learning and Teaching Development units. Survey respondents disclosed a visible distinction between employment-related information flowing from Human Resource departments and CPLD being designed and delivered by entirely separate departments across their institutions, sometimes presenting conflicting messages.

For us, the rapid move to online learning saw an exponential rise in CPLD events at a local, national, and international level. Engagement in all or some meant that, at times, colleagues would experience information overload, limited time to extract meaning, and actively reflect on its applicability to practice. Alongside this came increasing feelings of tension and frustration: frustration based on time and availability to engage in such events and tension between undertaking CPLD and supporting students in the here-and-now. Arguably, one cannot happen without the other, but the Covid-19 crisis placed strain on this and left many academics facing numerous social and psychological challenges of their own, which were sometimes overlooked in CPLD opportunities. For example, participants' academic well-being and self-care were not an explicit focus of CPLD opportunities, which focused on the instructional 'how-to'. There was little consideration of how this would impact the often-existing anxieties about the overwhelming nature of such tasks when individuals might already be conscious of their lacking technological prowess. One cannot continue to develop if they are not in a psychologically safe space to do so, and many felt unprepared to disclose their struggles with the technology, fearing

they were the only ones to experience difficulties in keeping pace as new updates to software occurred regularly. CPLD must ensure that teaching staff are not meeting the challenges of the pivot to online learning at the cost of their mental health and well-being. Learning gained from CPLD can only be acted upon if the physical environment allows, and some of the opportunities made available made assumptions about the 'workspaces' that instructors had managed to carve out within their homes, which may be limited and at the same time intrusive upon their work–life balance.

Taking lessons forward from the missed opportunities for CPLD during the pivot to online learning, institutions need to embrace a more cohesive approach to enabling teaching staff to engage with CPLD from across the full range available within and outside of their institutions and to connect with their peers to share good practice. Scholars in disciplines – such as Law and Psychology, where regulatory requirements impose some commonalities across the curriculum – should look to form communities of practice, like discussion groups, to share good practice, which would also provide a safe space for instructors to explore and test teaching ideas with peers. To maximise the value of such, academics need time built into their workload model not only to engage but also to self-reflect critically.

Development opportunities occur at individual (self-development), local (School or Faculty), institutional (cross-Faculty), and national levels (Fig. 1), and management should look to facilitate the effective movement of knowledge and information through the different layers of available CPLD and networking opportunities. Engaging with development opportunities from across the full range of available platforms, both formal and informal, safeguards a comprehensive approach (King, 2004). The onus lies at each of these levels to facilitate the individual's development and enhance their ability to traverse through each of the other development points so that the benefit of engaging with such CPLD opportunities infiltrate each level of

Fig. 1 Levels of CPLD provision

the CPLD model, optimising the value disseminated upon the student body. In moving in-between these different layers, individuals take and share their learning along the way.

Lockdown conditions created disconnect, whether it be a social disconnect or a physical disconnect from the norm. At the same time, teachers were having to recalibrate their teaching philosophies – shifting their identities from classroom teachers with a physical presence in the learning environment to becoming online teachers and working through ways in which to make their presence felt in the online learning environment. The feeling of being 'lost at sea', engulfed in the tidal wave of online learning, was a feeling reported by many as they looked to navigate these unchartered waters with neither a map nor a compass. Some of the CPLD on offer sought to upskill instructors with the digital abilities to offer their students a connected experience, exploring all manners of ways in which to reach out to their students in their remote learning locations, but few opportunities focused on ensuring a connected experience to the academic, further compounding the sense of disconnect as expressed by respondent [C]: "*I became an outsider. Felt lost and confused. And used. I feel used and unsupported.*" This feeling of low morale, disappointment, and remoteness was more prominent for some groups of teaching staff than others, depending on the nature of their contract or the remaining weight of teaching load at the point of the pivot, as identified in the following two views:

> As a sessional I am expected to adapt without any training and being pushed to the periphery … I became an outsider … [Respondent H]

> When we shut down, and I became aware of how tricky the situation was, I felt lucky that we'd got through so much of the semester as normal and that people like me who had the most teaching were still only really just mopping up a couple of lectures … [Respondent L]

To design CPLD to empower individuals to engage with others on a professional, emotional, and social level would ensure their engagement in such sessions, enabling individuals to readily share their own good practice and to share their learning gain from CPLD opportunities with one another internally and externally. If instructors are expected to provide an inclusive and social learning experience to their students, ensuring their connectivity and satisfaction, it is critical that they be given a social learning opportunity through CPLD themselves. To approach the design and delivery of CPLD through a lens of empathy, care and compassion would ensure that instructors would themselves replicate this in their teaching. Moreover, there is a proven correlation between well-being and creativity in the teaching profession (Androshchuk et al., 2020).

One of the difficulties encountered by many instructors in the wake of the pivot to online learning was an inability to think beyond their pedagogical customs. This meant that they were seeking to bring online what had been achieved in the classroom, and this made for a poor experience for the student, inevitably leading to poor engagement. The consequence of this was low morale amongst staff who were committing extensive hours to teaching preparation. CPLD focused on the 'how-to' of creating digital teaching materials and resources without, first, reconfiguring the way in which academics viewed their pedagogical approach and, second, revisiting

their identity as a teacher. More could have been achieved by exploring, first, how the absence of a classroom's physical existence or the ability to stand on a stage, behind a podium or at a whiteboard changed the identity of the teacher on the new level-playing field that is the online classroom where all 'digital users' are equal. Such an approach would have aided instructors in thinking more creatively about what is achievable in the online classroom.

The pivot to online learning shone a bright light on individuals' abilities to respond to change. No longer were we able to go to our offices, see our colleagues, or see the whites of our students' eyes first-hand and gauge a reaction. Though the focus on quality enhancement in higher education and the impact of governmental changes had long meant continuous change to the way we work, such change had – in the main – been gradual, with transformation introduced over time. The changes brought about by the pandemic produced shockwaves, leaving few mechanisms upon which to clutch for security, creating social, psychological, and environmental impact. Change can bring about varied reactions in individuals – some embrace change, others are unsettled by it and as respondent T suggested "… *transitions and shifts … is going to create a tsunami of staff sickness due to burnout and stress.*"

At the same time, teaching instructors had the students' reactions to change and the need to provide support to contend with. A CPLD focus on embracing change would have been too late if introduced at the point of impact. Instead, in a sector frequently affected by change, longitudinal CPLD, which looks to transform attitudes to change, would be welcomed as a precursor to future events. Equipping instructors with the ability to flex to change, which brings social, psychological, and environmental impact, would better prepare them to support others, whether colleagues or students, where resilience is needed.

Resilience training would also go some way to addressing one of the challenges that staff faced in coming to terms with increased exposure and thus accountability in the ERT. Many staff felt uncomfortable at the transparency created by teaching online, where recorded material could be observed freely by colleagues and management. A further corollary of this exposure was the fear generated over self-adequacy:

> … there is a large disparity in what staff are doing and this creates unknowingly and unwittingly a certain level of fear and trepidation when looking at other staff members online materials. You begin to question are yours good enough, how much is enough. [Respondent T]

Many experienced increased pressures to be present in the online learning environment for hours outside of the normal working day and for periods far longer than would normally be expected of them in order to cope with their increased workload. A point exemplified in the following quote: "… *With already high workloads the move online increased workloads further, especially in email traffic from students*" [Respondent H].

Compounding this perceived pressure was the fact that staff were aware that their online status was shown and that to turn it off might lead to perceptions of non-engagement. Simultaneously, their visible availability meant students took advantage of this to seek support, often viewing instant messaging as akin to social media

conversations. This highlights not only the need for teaching staff to exercise self-care but also to communicate clear boundaries with a view to maintain balanced and healthy relationships with students and colleagues and managing their explicit and covert expectations. A continued pattern of working in this way would engender a stronger sense of knowing when adequate levels of productivity have been reached and that enough doesn't have to be 'best' if to achieve 'best' is at the cost of our own well-being.

5 Recommendations

This study informs that a sustainable training and development agenda needs to prioritise the following factors that we schematically represent in Fig. 2.

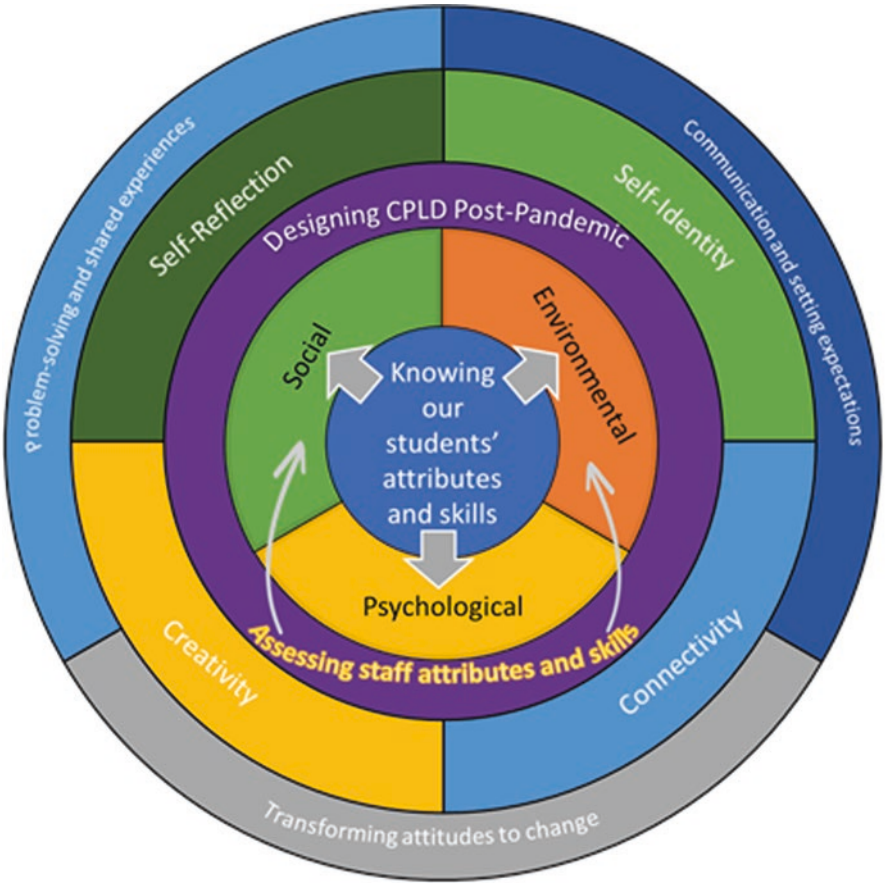

Fig. 2 Considerations for post-pandemic CPLD

5.1 End-User Awareness

CPLD frameworks must be developed from the perspective of understanding the new generation learner to include the micro and macro influences on their social situation, their psychological needs, and how these impact on engagement, outcome, and success. This should focus on the diversity of learning styles and avoid assumptions about the skills, comprehension, and tendencies of perceived student groups.

5.2 Immediate-User Awareness

CPLD frameworks must prioritise the teacher's well-being, whilst ensuring a cohesive approach across an institution, with a view to enabling individuals to easily navigate the CPLD on offer to them.

5.3 Self-Reflection

CPLD should enable teachers to both assess their training needs, reflect on their learning, and articulate their training needs.

5.4 Empathy and Compassion

CPLD needs to be designed to allow networking opportunities to both enable sharing of good practice and invoke a sense of connectivity. Lessons learnt on the national scale on a discipline basis can be brought back to the multidisciplinary plane of the faculty for dissemination of good practice.

5.5 Problem-Solving and Shared Experiences

CPLD, which takes a problem-solving approach, e.g. outlining a challenge or problem and seeing how others would address or resolve it, would enable social learning among peers and remove the obstacles of remoteness and loneliness.

5.6 Unlocking Creativity

CPLD should seek to scaffold teaching staff's ability to think creatively about what they are teaching and how best to achieve the learning outcomes through online teaching methods – and not to bring online what they have done in class.

5.7 Transform Attitudes to Change

CPLD should empower staff to embrace change. CPLD needs to take a holistic approach – focussing on the social, psychological, and environmental impact on the teacher in transforming their customs to the 'new world' and, in turn, encourage them to design and deliver their teaching with compassion and empathy, which takes account of the social, psychological, and environmental impact on their students.

5.8 Communication and Setting Expectations

In times of uncertainty, students and teachers require clarity in communication so that boundaries of expectations are realistically, reasonably, and clearly drawn. CPLD should focus on enabling teachers to communicate clearly to students what is reasonable for them to expect, and teachers should be empowered by assertiveness training to comply with the expectations they set.

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Conclusion: Continuing Professional Learning and Development (CPLD) for Online Teaching: Diverse Perspectives and Common Themes

Dianne Forbes and Richard Walker

Abstract This edited text has considered how to develop online teaching in higher education, looking at global perspectives on continuing professional learning and development (CPLD), across institutional boundaries, within institutions, at programme team levels, and for individual teaching staff. To conclude this volume, this final chapter revisits the impetus for the work and the framework connecting the ecology of CPLD support to staff. We then gather up common themes from across the chapters to suggest key points of consensus to inform future CPLD initiatives. While far from simple, the collective evidence from this volume indicates that sustainable learning for online teachers is situated, flexible, active, social, and creative. Collaborative approaches that balance digital competencies with pedagogical emphasis have great promise, provided the suitability and effectiveness of CPLD is continually re-evaluated.

This edited text has considered how to develop online teaching in higher education, looking at global perspectives on continuing professional learning and development (CPLD), across institutional boundaries, within institutions, at programme team levels, and for individual teaching staff. To conclude this volume, this final chapter revisits the impetus for the work and the framework connecting the ecology of CPLD support to staff. We then gather up common themes from across the chapters to suggest key points of consensus to inform future CPLD initiatives.

As editors and authors, our interest in online teaching at our respective universities has been long-standing and based on both research and practice, as academics, teachers, and learning designers. We have been involved for some time in

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supporting the online teaching capacity of colleagues, through various approaches to continuing professional learning and development, including international collaborations (e.g. Walker & Forbes, 2017). While not born of the pandemic, these interests intensified in urgency due to Covid-19 throughout 2020, leading us to reflect on the immediate need for the development of online teaching in order to sustain higher education during times when remote teaching and learning is the safest or sole solution. It follows that the development of teaching requires the development of staff (instructors, tutors, lecturers) on an ongoing basis. A key historical issue with CPLD for online teachers is that online teaching has previously been a niche concern, with online teaching skills only required and adopted by a minority of tertiary teachers. COVID has changed this, and widespread CPLD is now urgent. Just as the pandemic response has created this urgency, it has also generated a range of solutions, and it is timely to capture and bring together some of these now so that they can be shared and built upon. It is not simply a matter of using campus-based strategies to cultivate online teaching. Online teaching is a change that needs different sources of support and requires a rethinking of pedagogies and openness to consider alternative practices. It is our intention that this edited text serves as a reference point to inform CPLD initiatives for faculty engaged in online teaching within higher education.

We asked: How do faculty who are new to online teaching develop the requisite competencies and strategies to work effectively in this domain? How do experienced online teachers continue to extend and refresh online teaching capacity?

In response to these questions, this collection comprises ideas from nine countries, reflecting diverse perspectives and approaches to CPLD and the need for situated, contextualised solutions that meet the needs of learners and fit the goals of staff and institutions, at very different stages in the provision of fully online higher education. While this captures multiple perspectives on CPLD, we are mindful that there are countries and regions of the world that are not represented in this volume, and we are hopeful that future work can build upon the gaps herein.

Similarly, while the CPLD initiatives presented across the chapters are situated in a range of disciplinary contexts, including teacher education, business, law, psychology, languages, and healthcare, there has not been a significant focus on disciplinary differences and how they influence learning and development requirements. Rather, we conclude that there are commonalities across the CPLD approaches, irrespective of disciplinary context. We conclude by presenting these commonalities, and we acknowledge that the issue of disciplinary differences in CPLD is worthy of further exploration in future research.

CPLD is far from simple and has long been fraught with concerns about what is and is not effective. One size does not fit all. There is a need to examine diverse approaches to suit diverse needs in terms of staff capabilities, pedagogies, course design, and disciplinary and institutional needs. In terms of online teaching, CPLD interventions have been primarily focused on a deficit model, directed towards supporting staff with no prior experience of teaching or learning online to make the transition to virtual teaching. We contend that CPLD should be directed towards sustaining learning in practice and be relevant to novice and experienced

practitioners across the full career spectrum. Collectively, the chapters in this book highlight practices aimed at sustainable, continuing learning, and this thinking is in keeping with the Professional and Practice-based Learning series to which this book belongs (Billet et al.).

Also aligned with the philosophy of the series, the book is underpinned by a framework that recognises the ways that CPLD is driven by and functions at multiple levels: across institutions and international boundaries, within institutions, for programmes and teams, and for individual teachers. Readers are encouraged to refer to Gruber and Harteis' (2018) volume for earlier consideration of individual and social influences on professional learning. In our text too, these multiple dimensions have served an organising function and readers may find some sections of the book more relevant to their central concerns depending on where their focus lies. For example, institutional leaders may explore professional accreditation and look across institutions and international borders to expand opportunities for open models of CPLD. The cross-cultural potential of new initiatives is an area to explore and research further. Within institutions, leaders may champion in-house toolkits, workshops, and mentoring. Programme teams may seek to generate their own networks to meet the needs of their own students, staff, and disciplines. For individual staff, the agency to determine one's own needs and means of engagement is an important consideration. To draw out the implications for practice, in conclusion, it is useful to take stock of commonalities across the chapters and sections to distil some of the key learning about CPLD for online teaching.

Looking across the contributions in this volume, there are a number of themes that emerge as common to CPLD. These include the need for CPLD to be

- Online, situated, and flexible
- A balance of digital competencies and pedagogies
- Collaborative and social
- Active and creative
- Continually evaluated

Each of these shared, emergent themes will be discussed in turn.

1 Online, Situated, and Flexible CPLD

The authors in this volume have collectively presented a range of ways to approach CPLD via online opportunities. Among these, the use of open online courses (e.g., MOOCs) is championed by Dell et al. and by Kennedy et al., while a similar emphasis on self-paced and interactive online opportunities is shared by Farrell and colleagues. Beyond full courses, online CPLD can involve workshops (Houston et al., chapter "Providing Continuous Learning and Professional Development Through a Toolkit Design"; May & Denton, chapter "Emergency Designs: Lessons for the Rapid Implementation of Online Teaching"; Ngai et al., chapter "Swift Preparation for Online Teaching During the Pandemic: Experience Sharing from Healthcare

Teaching in Hong Kong"; Roloff Rothman et al., chapter "Supporting Emergency Remote Teaching via a Responsive Professional Development Support System"), drop-in sessions, or one-to-one consultations (May & Denton, chapter "Emergency Designs: Lessons for the Rapid Implementation of Online Teaching"), and websites with self-access resources (Houston et al., chapter "Providing Continuous Learning and Professional Development Through a Toolkit Design"; May & Denton, chapter "Emergency Designs: Lessons for the Rapid Implementation of Online Teaching"). Informal sessions designed to enable opportunities for colleagues to share practices and engage in dialogue and reflection were promoted by Zeivots and colleagues via Zoom and similarly by Harper and Holme via Microsoft Teams. Such peer-led sessions were designed to build capacity, as discussed by Roloff Rothman et al. There is an emerging consensus that a blend of asynchronous and synchronous opportunities for varied CPLD is ideal so as to offer a range of choices for staff (Farrell et al., chapter "Professional Learning for Open Online Educators: The #Openteach Story"; Philip, chapter "Pathways to Creative Learning and Teaching Online: An Ecological Model"; Roloff Rothman et al., chapter "Supporting Emergency Remote Teaching via a Responsive Professional Development Support System").

The rationale for situated online CPLD is two-fold: First, learning online for instructors mirrors the experiences of the students we will teach online, thereby promoting empathy and a degree of transferability between what is learned in the course of CPLD and what can then be taught or applied with students (DeWaard & Chavhan, chapter "Cross-cultural Mentoring in Tertiary Education: Enhancing Self-Efficacy in Online Teaching Through Collaboration and *Openness* in Professional Learning"; Dell et al., chapter "Inquiry MOOCs: Privileging Constructive Collaborative Learning for Continuing Professional Development"; Farrell et al., chapter "Professional Learning for Open Online Educators: The #Openteach Story"; Houston et al., chapter "Providing Continuous Learning and Professional Development Through a Toolkit Design"; Kennedy et al., chapter "Get Interactive: The Value of a MOOC for Continuing Professional Learning and Development"; Vallis et al., chapter "Co-design as Professional Learning: Pulling Each Other in Different Directions, Pulling Together"; Zeivots et al., chapter "Share Sessions: A Solution to Cross-disciplinary Academic Professional Learning and Development in Higher Education").

Second, online CPLD is flexible, enabling time-poor staff to engage as, when and where our needs are best served. Situating CPLD online enables the engagement of a global community (Cochrane & Jenkins, chapter "Professional Accreditation Pathways in Higher Education: Enabler or Block to Technology-Enhanced Learning Professional Development?"), paving the way for mentoring across international borders (DeWaard & Chavhan, chapter "Cross-cultural Mentoring in Tertiary Education: Enhancing Self-Efficacy in Online Teaching Through Collaboration and *Openness* in Professional Learning"). Overwhelmingly, the contributors to this collection have emphasised this need for CPLD to be flexible, insisting that there be room for adjustment, modification, and for a variety of learning to occur that is accessible in multiple ways (Philip, chapter "Pathways to Creative Learning and Teaching Online: An Ecological Model"; Roloff Rothman

et al., chapter "Supporting Emergency Remote Teaching via a Responsive Professional Development Support System"). The agency and autonomy of staff are thus affirmed, via what Philip refers to as "a suite of alternatives".

2 A Balance of Digital Competencies and Pedagogies

The focus of learning and development is necessarily on digital competencies in tandem with online pedagogies. For some educators, building digital competency is a significant challenge, acknowledged by Farrell et al., Houston et al., and Ngai et al. Encouraging digital innovation is also at the heart of transformative CPLD for Cochrane and Jenkins, alongside online pedagogies that ultimately enhance learning experiences for students. For May and Denton, engaging and responsive pedagogies are key to course re(design) and associated CPLD strategies. The need to blend evidence-informed frameworks for inclusive and equitable learning design, with practical teaching approaches, and digital skills is widely recognised across the chapters in this volume (Cochrane & Jenkins, chapter "Professional Accreditation Pathways in Higher Education: Enabler or Block to Technology-Enhanced Learning Professional Development?"; Farrell et al., chapter "Professional Learning for Open Online Educators: The #Openteach Story"; Houston et al., chapter "Providing Continuous Learning and Professional Development Through a Toolkit Design"; Lafferty & Roberts, chapter "From Physical to Virtual: Reflections on the Move from the Lecture Hall to the Digital Classroom"; May & Denton, chapter "Emergency Designs: Lessons for the Rapid Implementation of Online Teaching"; Ngai et al., chapter "Swift Preparation for Online Teaching During the Pandemic: Experience Sharing from Healthcare Teaching in Hong Kong"; Zeivots et al., chapter "Share Sessions: A Solution to Cross-disciplinary Academic Professional Learning and Development in Higher Education").

3 Collaborative and Social

A further point of consensus across the contributors to this text is the need for CPLD to be a collective endeavour, where learning is social and collaborative (Cochrane & Jenkins, chapter "Professional Accreditation Pathways in Higher Education: Enabler or Block to Technology-Enhanced Learning Professional Development?"; Dell et al., chapter "Inquiry MOOCs: Privileging Constructive Collaborative Learning for Continuing Professional Development"; Kennedy et al., chapter "Get Interactive: The Value of a MOOC for Continuing Professional Learning and Development"; Lafferty & Roberts, chapter "From Physical to Virtual: Reflections on the Move from the Lecture Hall to the Digital Classroom"; Philip, chapter "Pathways to Creative Learning and Teaching Online: An Ecological Model"). In this, and in other respects, there is a social constructivist foundation to the

theoretical underpinnings of the chapters, presented as communities of practice and inquiry. It is recognised that colleagues learn together, from and with each other. Several of the chapters relate examples of CPLD opportunities that were developed in partnership, for example by learning designers working with lecturers (May & Denton, chapter "Emergency Designs: Lessons for the Rapid Implementation of Online Teaching"; Roloff Rothman et al., chapter "Supporting Emergency Remote Teaching via a Responsive Professional Development Support System"; Vallis et al., chapter "Co-design as Professional Learning: Pulling Each Other in Different Directions, Pulling Together"; Zeivots et al., chapter "Share Sessions: A Solution to Cross-disciplinary Academic Professional Learning and Development in Higher Education"). In some cases, partnerships traversed institutions and were international in scope (Dell et al., chapter "Inquiry MOOCs: Privileging Constructive Collaborative Learning for Continuing Professional Development"; DeWaard & Chavhan, chapter "Cross-cultural Mentoring in Tertiary Education: Enhancing Self-Efficacy in Online Teaching Through Collaboration and *Openness* in Professional Learning"; Kennedy et al., chapter "Get Interactive: The Value of a MOOC for Continuing Professional Learning and Development"; Roloff Rothman et al., chapter "Supporting Emergency Remote Teaching via a Responsive Professional Development Support System"). At times, the focus on capacity building led to participants in CPLD initiatives taking a leadership role, by mentoring and maintaining the learning community (DeWaard & Chavhan, chapter "Cross-cultural Mentoring in Tertiary Education: Enhancing Self-Efficacy in Online Teaching Through Collaboration and *Openness* in Professional Learning"; Kennedy et al., chapter "Get Interactive: The Value of a MOOC for Continuing Professional Learning and Development"; Roloff Rothman et al., chapter "Supporting Emergency Remote Teaching via a Responsive Professional Development Support System"). Overwhelmingly, the point has clearly been established: CPLD is a social and collaborative process, involving sharing, interaction, peer review, and collegial support.

4 Active and Creative

Moving beyond transmissive approaches, the authors in this volume emphasise the need for CPLD that entails active learning and participation (Cochrane & Jenkins, chapter "Professional Accreditation Pathways in Higher Education: Enabler or Block to Technology-Enhanced Learning Professional Development?"; Dell et al., chapter "Inquiry MOOCs: Privileging Constructive Collaborative Learning for Continuing Professional Development"; Harper & Holme, chapter "Informal, Grassroots Online Professional Learning: The Experiences of Teacher Educators"; Kennedy et al., chapter "Get Interactive: The Value of a MOOC for Continuing Professional Learning and Development"; Vallis et al., chapter "Co-design as Professional Learning: Pulling Each Other in Different Directions, Pulling Together"; Philip, chapter "Pathways to Creative Learning and Teaching Online: An Ecological Model"). This can involve participants solving problems and designing

innovative learning experiences, underpinned by creative and critical thinking, as Lafferty and Roberts suggest. Beyond business-as-usual, the goal is to transform, innovate, and devise creative approaches to online teaching and learning.

5 Continually Evaluated

Finally, there is no suggestion of an end-point or ultimate solution in the dynamic CPLD initiatives presented in this collection. The need to continually evaluate the impact of professional learning on subsequent practice is integral to the CPLD process (Cochrane & Jenkins, chapter "Professional Accreditation Pathways in Higher Education: Enabler or Block to Technology-Enhanced Learning Professional Development?"; Houston et al., chapter "Providing Continuous Learning and Professional Development Through a Toolkit Design"; Kennedy et al., chapter "Get Interactive: The Value of a MOOC for Continuing Professional Learning and Development"). On the basis of evaluation, it is expected that CPLD will continue to evolve and diversify to remain relevant to the needs of students, teachers, programmes, and institutions in whatever challenging circumstances the future may bring.

Fundamentally, our book aims to bring together a range of solutions and suggestions to assist teachers and institutions with CPLD. As such, the book will benefit institutional leaders as well as individual staff who are looking for new directions in their professional and learning development. It will serve as a reference point for CPLD programmes for online teachers and for leaders of related programmes and policies, offering perspectives and practical ideas that may be applied to their professional context.

We encourage readers to reflect on the practical implications of these collected works and to consider the potential transfer to new and novel contexts. With modifications to account for differences in culture, disciplines, faculty and student needs, and resourcing, it is our hope that there are ideas to inform continuing, sustainable professional learning and development for online teachers in higher education globally.

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