

Professional Development in Online Teaching and Learning at Tertiary Level During Pandemic: A Quest for Student's Care

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This article explores the developments of educators' knowledge and practices in online teaching and learning as their professional development during the COVID-19 pandemic. The study begins with the question, "How do I improve my online teaching and learning knowledge?" The research is grounded in two models: the CRASP model (teachers' Critical attitude, Research into teaching, Accountability, Self-evaluation leading to Professionalism) proposed by Zuber-Skerrit (1992) and Fuller's (1969) Concerns Based Model of Teacher Development (CBMoTD). The educators' critical attitude and skills towards their own knowledge of online teaching and learning were identified as areas that required professional development to support students' achievement at tertiary levels. Participants were two educators working with tertiary students (N=250) in New Zealand in Initial Teacher Education (undergraduate teacher training). Data were collected through observations and collaborative discussions. The educators' investigation of their own practice highlighted the need for developing insights in their own professional development, including online teaching and learning, maintaining the objectives and quality of the course, and quality assessment. Interpretive Phenomenological data Analysis and Inductive methods were utilised to analyse the data. The findings highlighted students' accomplishments when implementing a caring approach instead of a traditional task-driven approach. The findings will benefit course developers, educators, and students in online teaching settings by prioritising student care as the core of any educational setting.

Keywords: Online teaching and learning; professional development; COVID-19 pandemic; student care

Introduction

The COVID-19 pandemic influenced the world to develop insights into areas that were scarcely regarded in the past. One of the notable imposed changes was the introduction and use of online teaching and learning, which seemed inevitable during the lockdown and closure of universities in New Zealand in March 2020. As a result, education systems had to quickly adapt to online teaching and learning (Dyment & Downing, 2020) using Zoom, Skype, Blackboard Collaborate, WeChat, Panopto, etc.

Despite the uncertainty of online teaching, education in general regularly changes, and educators often experience fears and concerns about their teaching abilities throughout their careers (Conway & Clark, 2003; Both, 2010; Naylor & Nyanjom, 2021). This was also the case with two educators who joined the university less than six weeks before the lockdown. The educators (hereafter referred to as "we") were teaching students in the Bachelor of Education in Early Childhood and Primary Education. Students varied from first to third year students and consisted of approximately 250 students.

Soon after the lockdown started, during an informal online conversation, one of us questioned the adequacy of our skills to redesign, plan, and teach via an online platform. We realised that teaching online was something we had little knowledge and confidence in. We also had minimal knowledge of the platforms of our university. This critical reflection and self-evaluation of our skills and knowledge sparked a conversation where we both realised the need for professional development.

Concept of Professional Development

Professional learning or development is appealing for teachers to support their learner's achievement. Research uses various terms for professional development, including but not limited to professional learning, lifelong learning, professional training, and education (Pill, 2005). For the purpose of this study, we will be referring to the term professional development.

Professional development aims to develop skills to benefit those we work with. Professional development also refers to continuous education and career training after entering the workforce to help build new skills, stay updated on current trends, and advance careers (Naylor & Nyanjom, 2021). The value of professional development lies in the cycles of conversations, the actions and professional development as a result of the conversations. Researchers are clear that in order for professional development to occur, participants need to be actively involved in their learning and have the desire to engage in professional development (Jephcote & Salisbury, 2009). Other aspects contributing to successful professional development are the participants' internal motivation and the professional development being organizationally embedded rather than externally imposed.

Concept of Online Teaching and Learning

The concept of e-learning refers to any education that occurs through the internet (Conrad et al., 2022; Moore et al., 2011). E-learning involves using any device, media, and learning platform to learn and teach. Various types of e-learning include online and mobile learning (Maseko et al., 2020; Yilmaz, 2019). Online learning is conducted through the internet and offers synchronous and asynchronous courses. Mobile learning occurs on smartphones, tablets, iPads, and digital media players (Kim, 2020; Maseko et al., 2020).

Researchers such as Bates & Sangra (2011) and Conrad et al. (2022) argue that online learning is convenient, enhances learning opportunity, are interactive, and improves administration and innovative teaching. However, effective online teaching and learning depend on a thorough and detailed student-focused design with effective interaction between students and educators (Kim, 2020; Treleaven, 2004). In order to ensure the latter, educators may need professional development in delivering content through online platforms Gillett-Swan, 2017; Treleaven, 2004).

Apart from teaching content via online platforms, evaluation and assessment are fundamental to teaching. That requires attention to the process of collaboration, productive interactions, and learners' achievements (Treleaven, 2004). To this end, educators must develop an awareness of their skills and knowledge in online teaching and learning environments.

This study aims to understand how our knowledge and online teaching and learning practices influenced our teaching during the COVID-19 pandemic.

Theoretical Framework

The present study was grounded in two models: the CRASP model, the acronym that embraces the understanding of teachers' Critical attitude, Research into teaching, Accountability, and Self-evaluation leading to Professionalism (Zuber-Skerritt, 1992, 2013), and the Concerns Based Model of Teacher Development (CBMoTD) (Fuller, 1969). These models were selected because they highlight the concerns of the educators who participated in the present study. Additionally, the models were suitable to highlight our experience (Fuller, 1969) and to guide our professional development (Zuber-Skerritt, 1993). The models are briefly explained in the subsequent sections.

The CRASP Model

The CRASP model of Zuber Skerritt consists of the following acronyms: Critical attitude, Research into teaching, Accountability, Self-evaluation, and Professionalism. Developing critical thinking and a critical attitude toward learning are essential skills that educators should convey to their students. However, before educators can share the skilled talent of reflective thinking with their learners, they must first master such skills. As educators' question and self-evaluate their skills, a critical attitude and a quest in to their own abilities may arise (Zuber-Skerritt, 1992). Zuber-Skerritt (1992) emphasises that educators' self-evaluation should be done to achieve the end goal, also called professional development.

In the present study, the researchers' critical attitudes and skills toward their knowledge of online teaching were identified as areas requiring professional development. The CRASP model provided a framework for educators to develop a critical attitude, self-evaluate their online teaching and learning knowledge, and develop new skills. As with the second model, the educators also experienced doubts about their online teaching and learning knowledge.

The CBMoTD Model

The CBMoTD model focuses on educators' experience regarding their abilities and skills. Education regularly changes, making educators experience fears and concerns about their teaching abilities throughout their careers (Conway & Clark, 2003; Both, 2010). Fuller's CBMoTD theory describes three developmental presses that arise due to a hierarchy of concerns from educators about their own needs and their learners. These phases are known as "self", "task", and "impact". In the case of this study, educators asked and expressed concerns relating to each of the phases. "Self" – do I have sufficient skills to support students online? "Task" – what resources do I need to ensure I have adequate knowledge? "Impact" – what impact will my knowledge of online teaching have on students? According to Both (2010), the order in which these phases occur may vary, or all three phases can be present simultaneously. These phases can also repeat countless times in an educator's career when new challenges arise, similar to the CRASP model.

Integration of the Theoretical Framework

As a theoretical basis for this study, we formed a new conceptual framework by integrating the two models of Zuber-Skerritt and Fuller. The two models were combined as the different aspects of each model complemented each other in forming a more relevant framework for the educators' needs. The new framework consisted of eight phases (see Figure 1). The study's first phase began with our concerns (Self) about our skills and abilities regarding online teaching and learning. We analysed our situation and concerns regarding online teaching and learning platforms. Questions that articulated the concerns included: Do I have enough knowledge of the online delivery mode? Do I have an ample understanding of online platforms? We were concerned about whether we had sufficient knowledge to deliver learning through the online mode. This resulted in developing our critical thinking and attitude (Phase 2) toward our skills.

We furthermore did a self-evaluation (Phase 3) of our abilities. We explored the available resources, methods, and support to improve our online teaching and learning knowledge. The resources included support from the university and colleagues. As we analysed our concerns, we researched our practice and became reflective (Phase 4). This way, we could ensure that the task (Phase 5) was executed appropriately.

Accountability (Phase 6) arises when we realise that we learn and have a responsibility toward their learning and development. Additionally, through self-evaluation, we realised that we lacked sufficient knowledge, methods, aids, or support in online teaching. We became aware of our shortcomings and asked for help, leading to professional development and professionalism (Phase 7). As our professional development improved, our confidence and professionalism improved and significantly impacted our professional development.



Figure 1: The theoretical framework adopted from the CRASP model (Zuber-Skerritt, 1992) and CBMoTD model (Fuller, 1969).

Methodology and Data Collection

A qualitative approach and interpretive paradigm were used for this study. According to Noon (2018), a qualitative interpretive approach supports the researcher in making sense of how individuals and communities assign values to their experiences and construct meaning. With an interpretive approach as our research design, we aimed to "focus on empowering, construction of new knowledge and subsequently taking action to change the status quo" (Merriam & Grenier, 2019, p. 4). We were the study participants and worked with 250 students from the first year to the third year of the Initial Teacher Education programme (ITE) at a university in New Zealand.

The data were obtained through observations and collaborative discussions with the researchers being participants-observers. Observations were made during the online sessions delivered synchronously through Zoom and Collaborate sessions and asynchronously through recorded online lectures, emails, and WeChat messages. Student's behavioural patterns, occurrences, and notes were used during the observations to understand online learning better. The following questions guided, but were not limited to, the observations: Do the students have the necessary skills and knowledge to use the online learning platforms? What emotions are they experiencing? Is the content/workload overloading them? Do the students prepare before they attend online learning classes (self-directed learning)? Are they engaging in the sessions through online learning and emails?

Anecdotal records were kept during the observations. These records included our planning, observation during the lectures, actions taken, and reflection after each class. Under the heading "planning", educators indicated what content they had planned for the specific online session, either through synchronous or asynchronous teaching. The "observation" heading represented our observations of students, behaviours, and behaviour patterns. The "action" section described our actions after making the observations. Due to the nature of this study, changes in actions often occurred at the moment and, in some cases, did not align with the initial pre-session planning. Figure 2 highlighted anecdotal notes from an occasion when we altered the sessions after observing students and realising they were overwhelmed. Instead of keeping to the original plan before the session, where we wanted to work through a set piece and a certain amount of content, we altered our planning, the amount of content we wanted to cover, and explained the content differently to ensure all students understood the content.

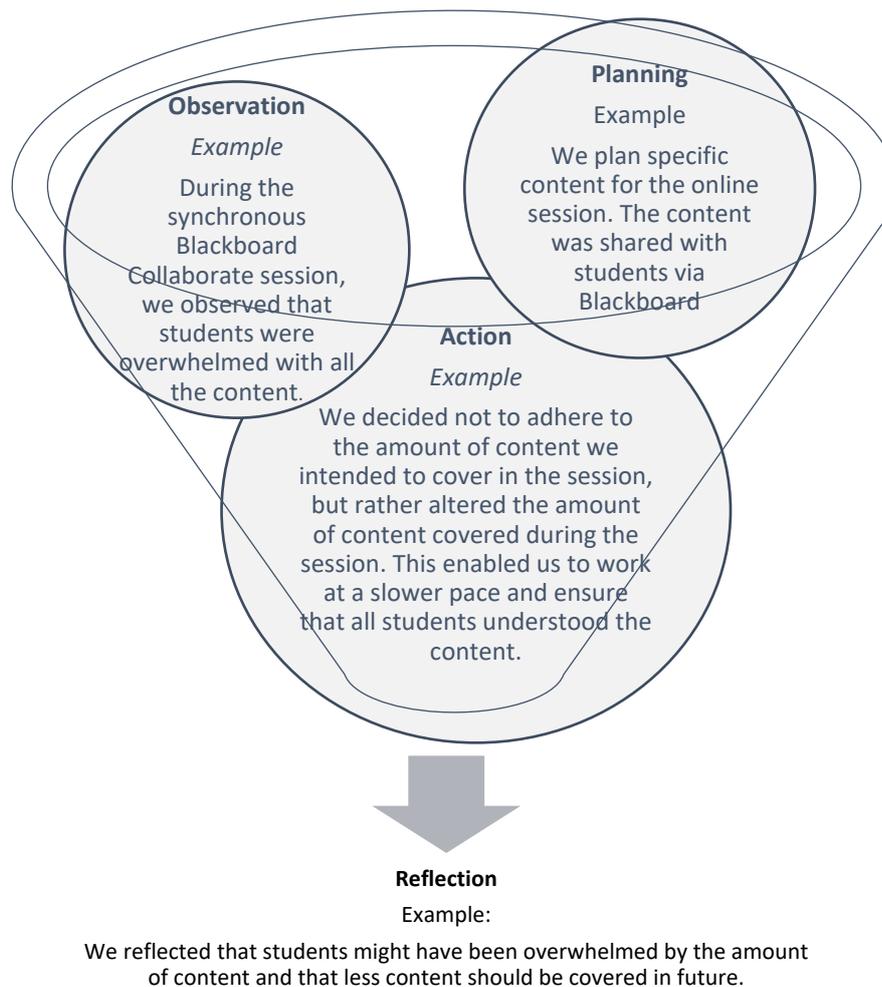


Figure 2: An example of anecdotal notes

Data were also collected through our collaborative discussions. Collaborative discussions are, according to Hrastinski (2008), a powerful model for the facilitation of learning and propelling professional growth. Engaging in dialogues about improving our practice and working together to facilitate professional development is a natural outcome (Hrastinski, 2008; Treleaven, 2004). Our collaborative discussions occurred twice weekly during a set time through phone calls or online platforms. We discussed when a problem occurred or required support. During these discussions, we motivated each other and shared our emotions, frustrations, and best practice. Aspects such as gaps in our knowledge of online teaching and ways to learn more were discussed, too. As a result, support structures were discussed, such as those from the university IT department and other colleagues.

Participants

The first two authors were the main participants of the study who taught approximately 250 students studying toward a Bachelor of Education in Early Childhood and Primary Education. The students varied from the first to the third year and lived in New Zealand or China.

Data Analysis

Interpretive Phenomenological Data Analysis (IPA) was used to analyse the data gathered from our observations and collaborative discussions. IPA is subject-centered and is usually conducted in small samples, exploring participants' voices and experiences. IPA aims to hear the participants' voices and understand their experiences

(Noon, 2018). The first step of the data analysis was to answer the research questions through our observations, student/peer reflections, student assessment, and collegial talks. In the second step, we read and reread the notes of our observations and reflected on the collaborative discussions' content. Through the third step, similarities, contradictions, and differences were identified. The two themes were recognised: Knowledge and skills of online teaching and learning and collaborative environment for online teaching and learning. These themes will be discussed in the subsequent section.

Findings and discussion

Knowledge and Skills of Online Teaching and Learning

The first research question explored our knowledge and skills in online teaching and learning. Our initial conversations showed that we did not have the required skills and knowledge in distance education, in particular, online teaching but we needed to develop expertise to support our students. This is in consistent with the argument that professional development often starts as a result of self-evaluation (Zuber-Skerrit, 1992). From our collaborative discussions, it was clear that we had to set an example for our students to be adaptive experts with a balance of knowledge and skills to adapt activities and innovate ideas/ways of doing them (Chen & Chang, 2006; Franey, 2016). Not only did we lack skills in online teaching, but the following aspects were found crucial in the success of our online teaching

Students' access to technology

Our online teaching was designed for all students (i.e., those living in New Zealand and those in China). We realised that the place of residence could influence students' access to technology. For example, YouTube videos were initially considered useful online teaching and learning resources. However, we realised that YouTube channel was not practical since it would be filtered or restricted in some countries, including China. Hence, the use of alternative resources was inevitable. This made us find alternative resources through inquiries from colleagues and students themselves. These conversations shaped our relationships (Bishop et al., 2012) with students and empowered us to use more inclusive platforms in our teachings. This will be discussed further in the subsequent sections (see collaborative learning environment).

Methods of communication with students

Communication and connection with students are crucial in teaching, either online or face-to-face (Gillett-Swan, 2017). Students need to feel connected and be seen; synchronous and asynchronous connections are vital for shaping connections. We, therefore, planned synchronous online sessions using Zoom or Skype (Çakıroğlu & Kılıç, 2020; Hrastinski, 2008). For the first semester, these sessions were held only two or three times, mainly before assignments' due dates or upon students' requests. Regular Zoom/Skype meetings were set up in the second semester, and we made ourselves available to the students. The reflection from our students showed that they felt more inclusive in semester two. This also helped students feel more welcomed and helped them make better relationships with us, avoiding a sense of disconnectedness (Kim, 2020). Additionally, cultural aspects must be considered so that students would not feel uncomfortable asking questions (Dyment & Downing, 2020; Lenkaitis et al., 2020). We, therefore, made efforts to provide such opportunities considering our students' needs. To accommodate all students, an asynchronous platform seemed to be an alternative to online teaching, which provided students with the flexibility to learn and study at their own pace and time. While synchronous platforms focused on fostering student/educator relationships, asynchronous platforms eased student learning, specifically if there were time differences between students and educators. This platform was also proved to be efficient for students studying at an institution where the language of education is not the student's first language (Bates & Sangra, 2011; Greene et al., 2012). Hence, we catered a balanced access to synchronous and asynchronous online learning platforms to support our students academically and emotionally.

Quality of assessment

Assessment is an important component of any teaching and learning. Assessment is important to evaluate students' theoretical knowledge, pedagogical content knowledge, and professional skills (Kim, 2020; Maseko et al., 2020). Before the lockdown and online teaching and learning, our assessment focused on product-based items, such as

essays, portfolios, and inquiries for pedagogical content knowledge. Students could gain professional skills through practicum and peer interactions (Widodo & Allamnakhrah, 2020). We also needed to assess our students' practical knowledge through their performance and understanding of the context in our online teaching. We then decided to modify our assessment comprising a balance between process and product. In other words, we needed to plan a process- and product-based assessment (Widodo & Allamnakhrah, 2020). Considering the ever-changing world circumstances such as the COVID-19 pandemic, educators need to be able to learn how to adopt ways to create learning experiences. Teachers' critical and curious attributes may help students to have exceptional learning experiences (Pill, 2005; Widodo & Allamnakhrah, 2020). Hence, critical attitudes and self-evaluation as a professional development cycle can be passed to students from their teachers.

A student-care approach

The importance of a careful approach is one of the main facts highlighted during the reflection process and through collaborative conversations (Bishop et al., 2012; Gillett-Swan, 2017; Treleaven, 2004). Using a caring approach when teaching online emphasises that educators care about the context and community in which they acknowledge the many ways of knowing and being in an ethnically diverse society (Bates & Sangra, 2011; Naylor & Nyanjom, 2021). When such care approaches are modelled by educators, students should be able to model the approach and support others. This care includes learning about each other and understanding fears and barriers for students and educators in online teaching and learning environments. For example, managing work and family commitments for us during the lockdown was a major barrier. Considering the students' unique circumstances in this study, extra planning was necessary to provide care and support to them. Students' care needed to even prioritise various areas, such as cognitive and emotional aspects of their learning during the stressful time of the pandemic. Hence, empathy, support, and care (learning through relationships) are suggested as the key factors of online teaching and learning during the COVID-19 pandemic. This study further suggested that relationship-based learning (Bishop et al., 2012; Bishop, 2019) should be implemented in online teaching and learning, where caring should be highlighted, unlike the traditional task-driven approach.

Through the data collection, it was evident that students thrived when a caring approach was utilised instead of a traditional task-driven approach. Our professional development incorporated these findings to provide sufficient academic and care-based support, ensuring the course objectives and quality, maintaining effective assessment, and implementing student/peer reflections. The findings further highlighted that tertiary-level educators should be less task-driven but more supportive and ready to implement changes to the curriculum based on students' needs during stressful times such as the COVID-19 pandemic.

A Collaborative Environment for Online Teaching and Learning

The second reach question aimed to explore the importance of collaboration when teaching online. Collaboration is the heart of any partnership; considering teaching and learning in a relational partnership shows the importance of the collaborative environment in developing online teaching and learning (Bishop et al., 2012; Bishop, 2019). Such a collaborative environment is not only for educators but also for students. We found that collaborative learning (Dyment & Downing, 2020; Pill, 2005) and online teaching and learning support are crucial for all students during difficult times such as a pandemic. For example, we asked the students about their preferred method to prepare themselves for their assignments. This helped them feel positive about their assignment and shake off their anxiety. They unanimously requested to have an online session to be assisted with their assignments after their first attempt. Our findings highlighted that collegial discussions and reflections were the two important areas in establishing a collaborative environment. Online teaching and learning should support students critical thinking (Kim, 2020; Watts, 2016), learning to think critically, be curious, and reflect deeply. Students in our study were supported to learn these skills in two different ways: assessment (described in the above section) and reflection.

Through the content and context of online teaching and learning, students were supported to gain professional knowledge and learn how to be critical thinkers. Reflection on their learning was compromised in their learning journey. Reflections on online teaching and learning (e.g., each session's content), assessments, and communication with educators were encouraged. Reflections on communication with educators have been more focused for the purpose of this study because communication was vital in our professional development of teaching students online who lived in two different geographical areas and were from different cultural and linguistic backgrounds to enhance the programme delivery. Reflections were gathered formally and informally

(e.g., students' formal feedback about the course submitted to the university and informal group discussion on students' teaching practices).

Furthermore, we received peer reflections on our experiences and shared knowledge to enhance online teaching and learning. These reflections occurred through weekly meetings between the two of us and the group team meetings. The university's Supporting Teaching and Learning group was another source that enabled us to develop and enhance our online teaching and learning, such as adding more interactive features in our presentations, recording short videos for our course, and creating a more engaging online platform, and being accessible for our students.

Conclusion and Implication for Further Study

The present study was an attempt to shed light on educators' professional development while transitioning from face-to-face to online teaching and learning. This professional development includes educators' awareness, knowledge, and online teaching and learning skills. The findings highlighted that to facilitate online teaching and learning, educators at tertiary levels should be less task-driven and be ready to implement changes to the curriculum based on the students' needs, particularly during stressful situations (e.g., COVID-19 pandemic). Additionally, a more supportive and collaborative environment may enhance the quality of online teaching and learning, such as relationship-based learning.

This study contributes to the previous research on the importance of promoting development for educators, whether classes are taught face-to-face or online. Additionally, students require opportunities to learn and implement critical thinking, collaboration, and communication through various platforms. The findings of this study are relevant to initial teacher education course developers, educators, and students by prioritising student care as the core of any educational setting. However, there are some limitations to this study. These include time and venue differences between educators and students. Although we planned and tried to set times that suited both the students and us, this was not achievable at times. This also brought further communication barriers, such as receiving late-night messages and emails from students.

Additionally, this study focused on educators' experiences, not what students experienced. Further studies would benefit from integrating students' experience of online teaching and learning with that of educators. Another limitation of this study was that the researchers/educators had just started their employment. Thus, they were in the process of integrating into a new teaching situation with new colleagues while at the same time facing the challenges of switching to a new context of online teaching and learning imposed by the COVID-19 pandemic and felt deserted due to the lockdown. Including more educators in various tertiary education may bring more depth to the findings.

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