



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

Research Commons

<https://researchcommons.waikato.ac.nz/>

Research Commons at the University of Waikato

Copyright Statement:

The digital copy of this thesis is protected by the Copyright Act 1994 (New Zealand).

The thesis may be consulted by you, provided you comply with the provisions of the Act and the following conditions of use:

- Any use you make of these documents or images must be for research or private study purposes only, and you may not make them available to any other person.
- Authors control the copyright of their thesis. You will recognise the author's right to be identified as the author of the thesis, and due acknowledgement will be made to the author where appropriate.
- You will obtain the author's permission before publishing any material from the thesis.

**Fostering a capacity for connectedness:
The contribution of “humanness” in hybrid early childhood initial teacher
education programmes**

A thesis
partial fulfilment
of the requirements for the degree
of
Doctor of Philosophy in Education
at
The University of Waikato
by
Sara Archard



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

2025

Abstract

This thesis provides an in-depth understanding of human connections between lecturers and ECE student teachers in one hybrid early childhood initial teacher education programme in Aotearoa New Zealand. More specifically, the focus of the research is the ECE student teachers' perspective of their experiences of human connections with their lecturers in the online component of the programme, and the role that digital technologies play in enabling or constraining the human connection.

This research is informed by socio-cultural theory and adopts a phenomenographic approach to gather qualitative data. Data were collected from nine ECE student teachers by means of semi-structured interviews, focus groups and the ECE student teacher contributions to asynchronous online discussions. By analysing data from three different sources, I was able to gain a more in-depth understanding of ECE student teachers' experience of human connections in the online learning environment with their lecturers and the ways that digital technologies mediated a connection.

Key findings from this study suggest ECE student teachers can experience human connections with their lecturers in the online learning environment, which are mediated by the pedagogical use of digital technologies. The four main themes generated from the data analysis that were useful in nurturing a human connection between ECE student teacher and their lecturers were: knowing their lecturer as a real person, informal communication, lecturers' feedback and feedforward and a sense of community. However, ECE student teachers had different perceptions of the human connections they experienced, how they experienced them, the value of those connections and the place digital technologies played in mediating such connections. Therefore, lecturers need time and space to employ a range of socio-cultural pedagogical strategies that align with the use of appropriate digital technologies to ensure that they respond to the diverse preferences of ECE student teachers when nurturing human connections.

This thesis contributes new understanding to the growing body of scholarship advocating for community focussed online learning design and practice, particularly in relational qualifications such as hybrid initial teacher education in Aotearoa New Zealand. The new information from this study supports the argument that policy and practice for hybrid initial teacher education programmes in Aotearoa New Zealand should be grounded in relational, socio-cultural theory challenging the neo-liberal standardisation of hybrid learning.

Acknowledgments

This is a thesis about human connections, and without them it would not have come to fruition.

I begin by thanking the ECE student teachers who took time from a busy and challenging year to generously share their experiences and insights. Your thoughtful contributions have greatly influenced my own teaching practice, and I hope that of others too.

To my supervisors Associate Professor Nicola Daly and Doctor Dianne Forbes, your supervision has been exemplary. Without your encouragement, guidance and understanding this thesis would not have been possible. I have enjoyed our laughter and very much valued your insightfulness, caring and consistent support.

Thank you very much to my friends and colleagues at The University of Waikato and Te Rito Maioha ECNZ. I would like to thank you for your words of encouragement, kindness, and motivation. I greatly appreciated and valued the moments you took time in your day to take an interest in my wellbeing and this study. My heartfelt thanks go to Kōka Gerry, whose consistent awahi, belief in my work and problem solving has been greatly appreciated and enabled me to “go with the flow.” My gratitude to Doctor Rosina Merry for your thoughtful check-ins and wise words of encouragement sprinkled with humour that have been a great source of motivation and encouragement. To Te Rito Maioha ECNZ for the space and time to complete this study. Finally, I would also like to especially mention Andrea Haines whose warmth and skill helped me to unpickle myself and find a pathway forward.

To my lovely PhD study group, Ashlie Brink and Simon Archard. You both prove without a doubt the importance of human connections in the learning process and life in general. Your humour, kindness and pedagogical insights have kept me inspired and focussed. Words cannot say how much I have valued your support from the diligent reading of drafts, reassurance of my thoughts, to the surprise lollies in my letterbox. We continue together.

Finally, I offer my deepest and most heartfelt gratitude and love to my family for their never-ending patience, understanding and constant inspiration-without you this journey would not have been possible. To my daughters Abigail and Lucy, and my husband Simon. A very special mention to Simon who has had the triple joy of studying, working and living with me along this journey - I promise I will get onto the gardening now. This thesis is dedicated to you.

Table of Contents

Contents

Abstract	i
Acknowledgments.....	ii
Table of Contents.....	iii
List of Figures	viii
List of Tables	ix
Chapter One: Introduction.....	1
1.1 Introduction	1
1.2 Aim and goal for this research	3
1.3 Personal interest.....	4
1.4 Context of the study	6
1.4.1 The context of human connectedness in distance learning	6
1.4.2 The context of human connectedness in Aotearoa New Zealand Early Childhood curriculum and education documents	9
1.4.3 The context of human connectedness in higher education guiding documents in Aotearoa New Zealand	12
1.5 Definitions.....	14
1.6 The structure of the thesis.....	15
Chapter Two: Literature Review	17
2.1 Introduction	17
2.2 The place of human connections in professional relationships.....	18
2.2.1 Human connections in higher education.....	20
2.3 Human connections in the online learning environments	27
2.3.1 Online Community of Learners	27
2.3.2 The Community of Inquiry framework	30

2.3.4 The role of digital technologies in mediating social presence and teaching presence in online community of learners.....	43
2.4 The development of teacher professional identity in initial teacher education	46
2.4.1 The concept of teacher professional identity	47
2.4.2 The role of initial teacher education in developing teacher professional identity.....	49
2.5 Summary	52
Chapter Three: Methodology	54
3.1 Theoretical framework	54
3.1.1 Research in education.....	55
3.1.2 Research paradigms in education.....	55
3.1.3 Phenomenography and the Interpretive research paradigm.....	57
3.1.4 Case study within Interpretative research.....	59
3.1.5 Data generating methods: Qualitative.....	60
3.1.6 My position as the researcher	63
3.1.7 Summary	64
Figure 1 Theoretical framework.....	65
3.2 Research process	65
3.2.1 Research context.....	65
3.2.2 The selection of participants.....	67
3.2.3 Ethical considerations	67
3.2.4 Data gathering.....	70
3.2.5 Analysing the data.....	73
3.2.6 Maintaining credibility and trustworthiness.....	77
3.3 Summary	79
Chapter Four: Findings.....	80
4.1 Introduction	80
4.2 Participant Portraits.....	81
Table 1 Overview of ECE student teachers' demographics	81

4.2.1 ECE student teacher participant A (Olivia).....	82
4.2.2 ECE student teacher participant B (Zhiyu)	83
4.2.3 ECE student teacher participant C (Caroline)	85
4.2.4 ECE student teacher participant D (Aisha).....	86
4.2.5 ECE student teacher participant E (Amy).....	87
4.2.6 ECE student teacher participant F (Stephanie).....	88
4.2.7 ECE student teacher participant G (Joanna)	88
4.2.8 ECE Student Teacher Participant H (Jing).....	89
4.2.9 ECE student teacher participant I (Min).....	90
4.2.10 Summary	91
4.3 ECE Student teachers' experiences of human connections with their lecturers in their professional relationships.....	91
4.3.1 ECE Student teacher participants' perceptions of knowing their lecturers as real people ..	92
4.3.2 Informal communication between lecturers and ECE student teacher participants	102
4.3.3 Lecturer feedback and feedforward	106
4.3.4 ECE student teachers' sense of community.....	112
4.3.5 Summary	118
4.4 Student teachers' perceptions of how digital technologies enabled or constrained human connections with their lecturers.....	118
4.4.1 Opportunities for interaction.....	119
4.4.2 Digital technologies that enabled lecturers to be perceived as real people in the online learning space	121
4.4.3 Student teacher personal preferences of digital technologies used by their lecturers for sharing knowledge	123
4.4.4 Constraints of the digital technologies in nurturing a human connection in the online learning space	124
4.4.5 Digital technologies that nurtured a sense of intimacy with their lecturers.....	126
4.4.6 Summary	127
4.5 The implications of human connections for teacher professional identity	127

4.5.1 Shaping professional teacher identity by understanding the nature of professional relationships.....	128
4.5.2 Shaping of teacher professional identity by lecturers sharing knowledge.....	129
4.5.3 The influence of human connections on the digital fluency of ECE student teacher participants.	130
4.6 Summary	130
Chapter Five: Discussion, implications for practice, opportunities for future research and conclusion	132
5.1 Introduction	132
5.2 Prior experiences that ECE Student teachers bring to their initial teacher education study	133
5.2.1 Summary	136
5.3 ECE student teachers’ experiences of human connections with their lecturers in the online learning environment, and how digital technologies enabled or impeded human connections....	137
5.3.1 Knowing lecturers as ‘real’ people.....	138
5.3.2 Characteristics of communication for supporting human connection	145
5.3.3 The importance of feedback in nurturing human connections between ECE student teachers and their lecturers.....	148
5.3.4 Summary	153
5.4 The impact of experiencing human connections on the development of teacher professional identity	154
5.4.1 Shaping understanding of professional relationships.....	155
5.4.2 Development of knowledge relevant to the Aotearoa New Zealand Context	157
5.4.3 Development of ECE student teachers’ digital fluency.....	158
5.4.4 Summary	158
5.5 Key points from the study with implications for eLearning policy and practice for ECE hybrid initial teacher education in Aotearoa New Zealand	159
5.6 Opportunities for future research	160
5.7 Conclusion.....	161
References:	163

Appendices.....	181
Appendix A: Permission letter	181
Appendix B: Participant information sheet	183
.....	184
Appendix C: Participant informed consent form	186
Appendix D: Semi-structured interview questions.....	188
Appendix E: Focus group questions	190

List of Figures

Figure 1 Theoretical framework	65
---	----

List of Tables

Table 1 Overview of ECE student teachers demographics	81
--	----

Chapter One: Introduction

1.1 Introduction

Good teachers possess a capacity for connectedness. They are able to weave a complex web of connections among themselves, their subjects, and their students so that students can learn to weave a world for themselves...The connections made by good teachers are held not in their methods but in their hearts-meaning heart in its ancient sense, as the place where intellect and emotion and spirit and will converge in the human self.

(Palmer, 1998, p. 11)

The writings of Parker J. Palmer have resonated with me throughout my teaching career. From my early days as a student teacher to my current position as the Teaching and Learning Digital Leader for a tertiary education provider, Palmer's words extolling the importance of authentic, human connections between teacher and student have greatly influenced my teaching practice.

In my role as an online lecturer in an initial teacher education programme, I am fascinated by the ways the "capacity for connectedness" (Palmer, 1998, p. 11) between a teacher educator and a student teacher can occur and be experienced in the online learning environment. In the context of this study, connectedness is understood as the human interactions mediated by digital technologies that underpin professional relationships between lecturer and student (Brown, 2023; Conklin & Dikkers, 2021; Parker et al., 2021; Zimmerman & Nimon, 2017).

In the context of higher education, the nature of and possibilities for online connectedness between lecturer and student have evolved over the history of distance learning due to advances in the use of digital technologies in higher education, and the associated pedagogy. These developments have meant that where once online learning environments were potentially experienced as cold, isolating and devoid of human connection, they can now be places that enable warm, collaborative and caring connections with others (Burke & Larmar, 2021; Ouyang et al., 2020; Potts & Stebletsova, 2022). However, despite the advances in pedagogical understanding and digital technology capabilities, students continue to report feeling limited human interaction with their lecturers leading to a feeling of disconnection, stress and isolation from others in their online learning environments in higher education (Jaggars & Xu, 2016; Pacansky-Brock et al., 2020; Rush, 2015). The lack of perceived human interaction in the online learning environment was highlighted during the Covid-19 global pandemic between 2019 and 2023 (World Health Organisation, 2025). During this time, higher

education programmes out of necessity for social distancing employed emergency remote teaching and transferred what had been face-to-face classes online (Forbes et al., 2023; Gedera et al., 2023; Tesar, 2020). It could be argued that the sudden, rapid transition for both students and lecturers into an online learning environment in response to emergency measures to continue education contributed to feelings of lack of interaction. For example, students did not necessarily have the digital literacy, access to devices or motivation to engage in interaction in their online spaces leading to a feeling of disconnection (Brown et al., 2021; Gedera et al., 2023). Additionally, for many lecturers who had not taught online prior to the Covid-19 pandemic, the sudden shift to online teaching and learning posed significant challenges as they understandably lacked experience and the digital pedagogical skills required to foster a sense of community through the development of relationships (Svihus, 2023; Tesar, 2020). However, in the context of this study it is important to consider that emergency remote teaching during Covid-19 exacerbated the issue of students feeling a lack of human connection in their online learning environments with their lecturers rather than it being the causation (Tesar, 2020). For example, literature just prior to the Covid-19 pandemic outbreak in 2019 also reported the issue of students' feeling a sense of isolation and lack of human connection with others in their online learning environments (Cornell et al., 2019; Nyysti & Walters, 2018; Rush, 2015). This research was undertaken in contexts where students had chosen online learning in higher education institutes that had planned online programmes.

This is disquieting because experiencing human interactions in their online learning environment enables students to develop relationships and a sense of belonging to a community (Hartnett et al., 2023; Parker, et al., 2021). Furthermore, strong relationships and a sense of belonging have clear benefits as they can contribute to students' motivation and engagement in their studies, and achievement of academic outcomes. Relationships and feelings of belonging can foster wellbeing and help to improve retention rates. Relationships and a sense of belonging are especially important for students who feel marginalised in educational settings to achieve academic success; this benefit is highly significant in the Aotearoa New Zealand context, where Māori, Pacifica and disabled students are disproportionately marginalised (Education Council, 2011; 2017; Ministry of Education (MoE), 2018).

Recognising the importance of relationships in the online learning environment, ongoing research is needed to investigate how such relationships can be facilitated and enhanced. My study contributes to existing scholarship by seeking to provide insights into human connections between the lecturer and the ECE student teacher in one hybrid early childhood initial teacher education programme in Aotearoa New Zealand. More specifically, the focus of my research is the ECE student teachers'

perspective on their experiences of human connections with their lecturers and, the role that digital technologies play in enabling or constraining the human connection.

Although not the main focus of this study, I also consider how ECE student teachers' experience of online human connections with their lecturers during their study might shape their teacher professional identity. In particular, I am interested in how ECE student teachers' prior attitudes and beliefs about teaching and learning may shift as they become aligned with the context and expectations of professional relationships articulated in curriculum and education documents for the early childhood sector of Aotearoa New Zealand. This is of interest to me literature highlights the importance of lecturers teaching in initial teacher education modelling the craft of teaching in a manner which is responsive to the context of the curriculum and education documents (Loughran, 2006; MoE, 2017). These documents are: *Te Whāriki: He Whāriki Mātauranga mō ngā Mokopuna o Aotearoa Early childhood curriculum* (2017), *Our Code, Our Standards: Code of professional responsibility and standards for the teaching profession* (Education Council, 2017), *Tātaiako: Cultural competencies for teachers of Māori Learners* (MoE and Education Council, 2011) and *Tapasā: Cultural Competencies Framework for Teacher of Pacific Learners* (MoE, 2019). The nature of connectedness in professional relationships pertinent to these documents is expanded later in this chapter.

The following sections establish the aim and goal for this study and explain my interest in online learning to provide a background and context for the research. This explanation of intent is followed by an overview of the types of connections in distance learning, the role of professional connections in Aotearoa New Zealand initial teacher education, and the place of connections in the Aotearoa early childhood sector education documents. Definitions of key terms used in my study are then presented and the chapter ends by outlining the structure of this thesis.

1.2 Aim and goal for this research

The aim of my study is to adopt a qualitative, phenomenographic case study approach to investigate the human connections experienced by ECE student teachers with their lecturers in a hybrid early childhood initial teacher education programme in Aotearoa New Zealand. The study seeks to gain insights into the human connections valued by the ECE student teachers, their reasons for valuing the identified human connections, and the implications of such connections. My study also investigates the ECE student teachers' perspectives on the role that digital technologies have in enabling or constraining human connections between themselves and their lecturers. Although not the main focus of this study, I will also consider how the ECE student teachers' experiences of human

connections with their lecturers may influence ECE student teacher professional identities. The following research questions were developed to guide this study.

Overarching research question:

How do ECE student teachers in a hybrid early childhood initial teacher education (ITE) programme experience human connections with their lecturers?

Sub-questions

1. What prior experiences do student ECE teachers bring to their hybrid initial teacher education programmes?
2. How are human connections experienced by ECE student teachers in their online professional relationships with their lecturers?
3. How do student ECE teachers perceive that digital technologies enable or constrain human connections with their lecturers?
4. How might ECE student teachers' experience of online human connections with their lecturers during their study shape their teacher professional identity?

The goal of my study is to contribute to a research-based understanding of effective online pedagogy. In addition, as an online lecturer and mentor to others in my current workplace, I hope that my study can offer some ideas for developing and enhancing online pedagogies specifically related to early childhood initial teacher education in Aotearoa New Zealand.

1.3 Personal interest

I have long held a passion for online learning which is founded on my belief that education is a basic human right, and that there should be equitable access for all people wanting to study. Digital learning accommodates my belief by potentially opening opportunities for study for people who can often be marginalised by traditional educational settings (Adel & Dayan, 2021; Ferguson, et al., 2019; Tate & Warschauer, 2022; Xie et al., 2022). However, as a lecturer providing these online learning opportunities, I have been concerned about students not completing their studies or feeling lonely in the process. I am also concerned that student experiences are not rich and engaging in the online learning environment. I do not want to create a revolving door, where students gain access to an online programme but for a variety of reasons, including a lack of sense of belonging and human connectedness with others, do not remain or engage in their studies (Archard, 2014; Baum & McPherson; 2019; Stone, 2019; Xie et al., 2020).

A course in digital learning alerted me to think about the role of online professional relationships in nurturing a sense of belonging for students. Subsequently, as a programme leader and lecturer in an online initial teacher education programme, my interest evolved into a focus on the nature of reciprocal relationships in an online community of learners and the role digital technologies can play in supporting them. My interest culminated in my Master of Education thesis that focused on ECE student teachers perceived 'sense of belonging' to a virtual community of learners and the role of those digital technologies and their different affordances of social presence, might have in fostering feelings of belonging.

Findings from my Master's research demonstrated that the participants acknowledged the importance of relationships for fostering a sense of belonging. Of note, it was evident that each participant held different views as to how digital technologies supported the development of relationships in their studies. An explanation for this phenomenon drawn from my findings, was that certain affordances of digital technologies enabled different aspects of lecturer presence in the online space. The different aspects of lecturer presence resonated in different ways with the ECE student teachers and enabled a sense of connection between them. The variations in the feelings of connection that the ECE student teachers experienced with their lecturers piqued my curiosity and started to raise further questions for me (Archard, 2012).

As I reflected on my own feelings of connection with ECE student teachers in the online programme, I realised that I really enjoyed and valued my interactions with them. I never felt lonely, isolated or at a disadvantage in not having face-to-face contact with the ECE student teachers. I remember vividly a conversation I had with a colleague in the staff room. They were lamenting that teaching online must be a very solitary experience for me and it must be a relief to go to the staff room to mix with real people. As I was about to take my cup of tea back to my office for a virtual café social drop-in session, I replied, to their surprise, that I did not feel that way at all and felt connected to the ECE student teachers in ways that I did not experience in my face-to-face classes. For example, I felt that through our joint participation in the programme's asynchronous formal and social online discussions, interaction via a one-to-one communication space and providing feedback, I had developed strong connections with the ECE student teachers. I felt that the connections I had with the ECE student teachers formed professional relationships that were human in nature as they were cognitive, social, emotional, and often mediated with warmth and humour. However, in reflecting further, I realised that mine was a personal and possibly unique view and that the ECE student teachers might not have felt the same way. Furthermore, I realised that I felt a greater connection with some ECE student teachers than with others and wondered about the reasons for this.

As a programme leader I had to meet regularly and consult with a panel of key stakeholders from the early childhood sector to discuss the Graduate Diploma of Teaching. One concern, frequently raised by the panel, was how in the online learning environment did ECE student teachers experience relationships that reflected curriculum and education documents aspirations. In response to the question, I would explain the asynchronous nature of interaction in the online learning environment and the underlying social cultural philosophy of the programme which was reliant on the ECE student teachers learning through their interactions with people, places and things (MoE, 2017). However, I started to wonder if all the ECE student teachers experienced interactions in this way and if they were really experiencing a human connection in our interactions which reflected the intent of the early childhood curriculum and education documents. My curiosity was further piqued as I considered the role of initial teacher education in nurturing teacher professional identity. I wondered if the modelling by lecturers, and the experience by students of professional relationships reflective of curriculum and education documents can contribute to shaping teacher professional identity.

As a result of my previous study and teaching experiences, I wanted to enhance my knowledge and understanding of ECE student teachers' views on their experience of human connections in online professional relationships with their lecturers. I also wanted to explore ECE student teachers' views on how digital technologies might enable or constrain a human connection with their lecturers. Finally, although not the main focus of this study, I wanted to explore in what ways any human connections felt by the ECE student teachers' might contribute to the shaping their professional identity to reflect the context and aspirations of professional relationships in the Aotearoa New Zealand early childhood curriculum and education documents. These questions and concerns have culminated in my embarking on this current research inquiry.

The following section of this chapter provides a background and context for my study.

1.4 Context of the study

1.4.1 The context of human connectedness in distance learning

The growth of distance education has been exponential, and this mode is now widely used in education and particularly in higher education (Bates, 2019). The 2020 global pandemic, where social distancing became the norm, further contributed to the growth and expansion of distance learning (Cameron et al., 2022; Ewing, 2021; Oyayzun, 2021). Digital learning has afforded flexible opportunities for a wide variety of people who may not have been able to access education. Such barriers have included distance from an institution, socio-economic factors, disability, and

unexpected events such as a global pandemic (Adel & Dayan, 2021; Tate & Warschauer, 2022; Xie et al., 2022).

The origins of distance education can be traced back to the early 1800s. Examples include Pitman's distance course in the UK for people wanting to learn shorthand, and in Boston, USA, advertisements in the local newspaper indicate the availability of a range of courses using the postal service (Bates, 2016; Pregowaski et al., 2021). Over time, distance learning has evolved from being predominantly transactional in nature and mediated by postal correspondence, to the recognition that learning is a social process mediated through interactions and collaborations with people, places and things facilitated by the Internet (Bates, 2019; Haythornthwaite, 2019; MoE, 2017). What has changed is the contemporary emphasis on the medium of the facilitation of education, pedagogical approaches to distance learning and the role of students and teachers in the learning process (Dron & Anderson, 2023; Harasim, 2017). The changes in distance learning over time have been categorised by some researchers in the field as "generations" (Aoki, 2012; Bates, 2005; Dron & Anderson, 2023). Of interest to my study is the nature of interaction (the connection) between teacher and student in each of these so-called generations. Historically, generations of distance learning have been categorised by the technologies used to deliver education programmes (Bates, 2005; Dron & Anderson, 2023, Moore & Kearsley, 2005). As the first generation of distance learning was print based and mediated by postal correspondence (Bates, 2005; Anderson and Dron, 2011), interactions in this generation lacked direct teacher-learner connection as information was sent to the learner by the education provider to be completed on their own (Bates, 2005). The second generation of distance education has been defined by the use of mass media such as print, radio and television to provide education programmes (Bates, 2005; Anderson and Dron, 2011). In the second generation of distance education, interaction between teacher and learner still tended to be transmissive and one-way in nature from lecturer to student (Bates, 2005). The third generation of distance education is characterised by the use of the Internet which includes Web 2.0 to facilitate programmes (Bates, 2005; Anderson & Dron, 2011). In the third generation of distance learning, interactions between teacher and learner are significantly different from previous generations in that they can be interactive and two-way in nature between lecturer and student (Bates, 2005).

An alternative view of generations of distance learning is provided by Anderson and Dron although the same term is used (2011, 2014). Instead of defining generations of distance learning by the technologies used to deliver the programmes, Anderson and Dron categorise generations of distance learning according to the pedagogy that underpins the learning experience. From this perspective, distance learning is categorised into three generations of "cognitivist-behaviourist, social

constructivist and connectivist pedagogy” (Anderson & Dron, 2011, p. 80). In refining their original theory to explain the differences more concisely between the different pedagogical generations, Anderson and Dron (2023) refer to the three generations as “the objectivist, the subjectivist and the complexivist” (p. 152). Each generation has ontological and epistemological assumptions of how reality is understood and knowledge constructed. In the present study, the subjectivist paradigm of distance learning is particularly useful in examining the online human connections between ECE student teachers and their lecturers as it is underpinned by cognitive constructivist and social constructivist paradigms which “involve social interaction, open-ended tasks, and active engagement”(Anderson & Dron, 2023, p. 154). Although Anderson and Dron (2011, 2014, 2023) define generations of distance learning from a pedagogical perspective, they assert that neither pedagogy nor technology should be the main driver but that there should be a balance. They suggest that:

The technology is the music setting the tempo, the beat, the timbre and the compelling melodies. The pedagogy defines the choreography, directing the dancers’ sweeping motions, graceful extensions and enduring embraces. Together, technology and pedagogy reveal and develop our human creativity and responsiveness and allow us to learn effectively and enjoyably. (Anderson & Dron, 2012, p. 1)

The changes in pedagogical understanding of distance education are reflected in the names chosen to define the third generation of distance learning. As the pedagogical use of new digital technologies has opened new ways of learning and teaching in online spaces, the language has shifted to reflect the emphasis on learning and learners. Terms such as *online learning*, *virtual learning*, *mobile learning*, *e-learning*, *networked-learning* and *web-based learning* have replaced the term distance education (Bates, 2023; Basak et al., 2018; Forbes, 2019; Quality Assurance Agency [QAA], 2020). There continues to be much debate and ambiguity about which terms to use and in which contexts (Singh & Thurman, 2019). For example, the term *e-learning* has been widely used by the Aotearoa New Zealand Government (2022) in Ministry of Education policy and eLearning guidance. The usage of the term *e-learning* is believed to represent the broad and transformative movement in the ways in which people teach and learn in face-to-face or fully online environments that use electronic resources and the Internet (MoE, 2020). However, Forbes (2019) comments that the term e-learning is “dying a natural death” (p. 1) as it is outdated, and Bates (2023) notes that “some argue that e-learning is too general to be useful, or that all teaching now depends to some extent on the use of technology, so we should drop the ‘e-’ and just focus on the learning” (p.2). Recognising these arguments and in keeping with the context and focus of my study, I will be using the term *online learning* in this study which is defined by Singh and Thurman (2019) as follows:

... education being delivered in an online environment through the use of the Internet for teaching and learning. This includes online learning on the part of the students that is not dependent on their physical or virtual co-location. The teacher content is delivered online and the instructors develop teaching modules that enhance learning and interactivity in the synchronous and asynchronous environment. (p. 302)

This definition is also used within tertiary education (Quality Assurance Agency (QAA), 2020) and therefore reflects a shared understanding among higher education providers in Aotearoa. As already noted, this is further endorsed in the Aotearoa context as the Tertiary Education Commission (TEC) uses the term online learning (2020). Finally, an analysis of tertiary providers in Aotearoa New Zealand confirms that online learning is the dominant term used by them.

1.4.2 The context of human connectedness in Aotearoa New Zealand Early Childhood curriculum and education documents

The early childhood education sector in Aotearoa New Zealand has two main statements of official policy that relate to teaching and learning (MoE, 2015). These policy statements are *Te Whāriki He whāriki mātauranga mō ngā mokopuna o Aotearoa Early childhood curriculum (Te Whāriki)*, (MoE, 2017) and *Our Code, Our Standards: Code of professional responsibility and standards for the teaching profession (CoPRS)* (Education Council, 2017). Each of the policies identifies relationships as part of their core values, expectations and aspirations and detail the ways in which relationships matter in teaching practice in Aotearoa New Zealand. These documents are examined in the following sections.

The socio-cultural theoretical framework of *Te Whāriki* (2017) positions relationships as fundamental for creating an effective learning and teaching environment for all children, families, and teachers in early childhood settings in Aotearoa New Zealand (Macfarlane et al., 2020; Merry, 2017). As such, one of the four principles of *Te Whāriki* (2017) is Relationships/Ngā Hononga. This principle reflects the socio-cultural theorising which underpins the philosophy of teaching and learning in the curriculum (Lee et al., 2013; Merry, 2017). The importance of relationships in the curriculum is demonstrated by the key premise of *Te Whāriki* (2017) that children learn and develop through their “responsive and reciprocal relationships with people, places and things” (Hedges, 2021; MoE, 2017, p. 21). When describing the principle of Relationships/ Ngā Hononga, Peter’s (2009) states that relationships with people are a fundamental dimension of this principle. Peter’s additionally notes that it is through the practice of relational pedagogy that the development of relationships between teachers and learners can be supported.

It is of note for my study that *Te Whāriki* (2017) not only determines that relationships are integral to learning and teaching but also describes how relationships should look and feel in ECE settings. For example, *Te Whāriki* states that in ECE the setting should provide as the norm “respectful relationships, encouragement, warmth and acceptance” (MoE, 2017, p. 21). The nature of relationships in early childhood settings is further described as needing to be “caring, responsive, and nurturing” (McLaughlin et al., 2015, p. 31), if they are to be effective in nurturing learning and development.

Our Code Our Standards (CoPRS) was published and came into effect on 30 June 2017 (O’Neill, 2019). Four values underpin the two elements of the CoPRS. The first element, The Code (the code of professional responsibility), details the expected professional behaviour of teachers. The second element, The Standards (standards for the teaching profession), provides a guide for effective teaching practice (Education Council, 2017). These two elements “together set out what it is, and what it means, to be a teacher in Aotearoa New Zealand” (Education Council, 2017, p. 1). O’Neill (2019) identifies that the CoPRS is bicultural and bilingual and clearly demonstrates its commitment to *Te Tiriti o Waitangi*. One way this is demonstrated is in the core values that underpin the code and standards that together form the document. The western principles of “autonomy, justice, responsibility and truth” from the NZTC Code of Ethics (CoE) are replaced in the CoPRS by Tikanga Māori values of:

- Whakamana: empowering all learners to reach their potential by providing high-quality teaching and leadership.
- Manaakitanga: creating a welcoming, caring and creative learning environment that treats everyone with respect and dignity.
- Pono: showing integrity by acting in ways that are fair, honest, ethical and just.
- Whanaungatanga: engaging in positive and collaborative relationships with our learners, their families and whānau, our colleagues and the wider community (Education Council, 2017, p. 2).

Relationships are implicit in all four core values that underpin the document and therefore are present in the actual code and the standards themselves. For example, Indicator 2 of the Code, Commitment to learner's states that “I will work in the best interests of learners by engaging in ethical and professional relationships with learners that respect professional boundaries” (Education Council, 2017, p. 10). In the Standard of Professional relationships, it is stated that teachers must “Establish and maintain professional relationships and behaviours focused on the learning and

wellbeing of each learner” (Educational Council, 2017, p. 18) which is further elaborated as being able to:

- Engage in reciprocal, collaborative learning-focused relationships with:
 - Learners, families and whānau
 - Teaching colleagues, support staff and other Professionals
 - Agencies, groups and individuals in the community (Education Council, 2017, p. 18)

In addition to the two official policy statements in Aotearoa New Zealand, there are also two frameworks designed to support teacher’s culturally responsive teaching practice (MoE, 2022). The first framework is called *Tātaiako: Cultural competencies for Teachers of Māori learners* (Education Council, 2011). At the heart of *Tātaiako* is the importance of quality relationships between teacher and learner for supporting the success of Māori learners (MoE, Patara, 2012; Savage et al., 2014). The goal of respectful, equitable and reciprocal teacher-learner relationships is evident in *Tātaiako*’s five principles but is specifically detailed in the principle of Whanaungatanga | Relationships. The principle of Whanaungatanga | Relationships is enacted in teaching practice by teachers who “actively engages in respectful working relationships with Māori learners, parents, and whānau, hapū, iwi and the Māori community” (Education Council, 2011, p. 6). From a learner perspective, Whanaungatanga | Relationships are described as being known, liked and respected by their teachers.

The second framework is *Tapasā: cultural competency framework for Teachers of Pacific learners* (MoE, 2018). *Tapasā* seeks to provide guidance for teachers to become more culturally aware when engaging with Pacific learners and their families to provide equitable and positive learning outcomes for Pacific learners. Quality relationships sit at the core of *Tapasā* and are explicitly detailed in Turu 2: Collaborative and respectful relationships and professional behaviours (MoE, 2018, p. 8). From a learner’s perspective a quality professional relationship with their teacher is viewed as within professional boundaries, but inherently human in nature. For example, some of the characteristics of a good teacher from a Pacific learner’s perspective are that a teacher is “strong, kind, honest, passionate, open-minded, understanding, flexible and compassionate leader who cares about me” (MoE, 2018, p. 7).

1.4.3 The context of human connectedness in higher education guiding documents in Aotearoa New Zealand

The importance of relationships between lecturer and learners in the context of higher education in Aotearoa New Zealand is evident across a range of policy and guiding documents.

The New Zealand Qualification Authority (NZQA), which is responsible for managing the New Zealand Qualifications framework and, “assures and approves qualifications, programmes leading to qualification, micro-credentials, assessment and skills standards for tertiary providers, except for universities (NZQA, 2025, para, 4) plays a key regulatory role in tertiary education. NZQA has the concept of relationships embedded explicitly and implicitly throughout its *Education (Pastoral Care of Tertiary and International Learners) Code of Practice 2021* (NZQA, 2021). For example, in the codes outcome 3, point 1b it explicitly refers to relationships and states that (b) “providers must provide learners to... connect, build relationships and develop social, spiritual and cultural networks” (NZQA, 2021, p. 17). The nature of relationships between lecturer and learner is also implied throughout the code of practice with the expectation that relationships are respectful, inclusive, reciprocal, safe and sit within professional boundaries (NZQA, 2021). The positioning of relationships in the *Education (Pastoral Care of Tertiary and International Learners) Code of Practice 2021* (NZQA, 2021) aligns well with a socio-cultural understanding of learner-centered relationships which foster communities of learners.

The Ministry of Education’s *Tertiary Education Strategy (TES) 2020-2025* issued under *the Education and Training act 2020* “sets out the long-term strategic direction and current and medium-term priorities for tertiary education” (Ministry of Education, 2020, p. 3). The *TES* does not directly refer to lecturer-learner relationships, but its objectives imply the need for strong, respectful and responsive relationships between lecturer and learner as they embrace the principles of collaboration, equity and inclusion. For example, *Objective 1* promotes a learner-centered approach which assets the need to listen to learner voice and provide a safe learning environment.

Aside from government policy, Aotearoa New Zealand has culturally responsive guidelines that support and nurture culturally responsive teaching practice in tertiary education. One such guide is *Ngā Hau e Whā o Tāwhirimātea. Culturally Responsive Teaching and Learning for the Tertiary Sector* (Rātima et al., 2022). *Ngā Hau e Whā o Tāwhirimātea. Culturally Responsive Teaching and Learning for the Tertiary Sector* (Rātima et al., 2022) is a framework consisting of four core components: “Manaakitanga – Ethic of care; Whanaungatanga – Relationships; Kotahitanga – Unity; and Rangatiratanga – Student agency and leadership (Rātima et al., 2022, p. 16). At the central core of the framework is Oranga (health, well-being, life, living), which supports all components of the

framework as well as itself being supported. Each component of the framework is interconnected and has a bidirectional influence with Oranga. At the heart of Ngā Hau e Whā o Tāwhirimātea sits the premise of “relationships as a ubiquitous factor” throughout the framework (Rātima, et al., 2022, p. 8). Relationships and the nature of relationships are especially evident in the components Whanaungatanga and Manaakitanga where the emphasis is on connections, a sense of belonging and an ethic of care. Such emphasis recognises that respectful, reciprocal, and caring relationships are integral to culturally responsive teaching practice. The component of whanaungatanga further describes how sharing a little about yourself as a lecturer with learners “that you are interested in who *they* are, and that you are prepared to bring a ‘human touch’ to the learning partnership” (Rātima et al., 2022, p. 29). Ngā Hau e Whā o Tāwhirimātea has been developed to support lecturers in the tertiary sector across all delivery mediums, however, another guide for culturally responsive practice in the tertiary sector is the *Bicultural Principles of teaching and Learning online | Ngā mātāpono kākano rua o te mahi ako tuihono* (Card et al., 2022) were developed to support best practice for teaching in a bicultural, online teaching and learning environment. *The Bicultural Principles of teaching and learning online | Ngā mātāpono kākano rua o te mahi ako tuihono* (Card et al., 2022) has 11 principles to guide practice that are underpinned by values of manaakitanga, whanaungatanga, and kotahitanga. The underpinning values of the *Bicultural Principles of teaching and learning online | Ngā mātāpono kākano rua o te mahi ako tuihono* (Card et al., 2022) align with three of the core components of *Ngā Hau e Whā o Tāwhirimātea. Culturally Responsive Teaching and Learning for the Tertiary Sector* (Rātima et al., 2022) and in a similar vein has the concept of relationships embedded throughout its principles. For example, principle one espouses relationships that are responsive, relational, and collaborative.

Summary

It is of relevance to this study that in the context distance learning, Aotearoa New Zealand Early Childhood curriculum and education documents, as well as Aotearoa New Zealand tertiary education policy and culturally responsive teaching guides, the importance of human connectedness mediated by relationships is consistently emphasised. There is a consensus within each of these contexts that position relationships within a socio-cultural theoretical framework and as such view relationships as respectful, reciprocal, inclusive and professional.

The next section of this chapter provides a glossary of terms used in the thesis.

1.5 Definitions

This section defines some of the key terms used throughout my study.

Online learning: refers to learning which is mediated by the Internet. Online learning has many names including distance education, digital learning, eLearning and virtual learning. In this study, the term online learning is used according to the rationale which was provided earlier in this chapter and refers to individual courses which are fully online the GradDipT-ECE.

Hybrid learning: the term hybrid learning or hybrid learning refers to an approach to education that consists of online and face-to-face learning experiences. In this study the term hybrid is used to describe the initial teacher education programme as it consists of online courses, face-to-face block courses and teaching practice experience. The terms hybrid and online learning are used throughout this thesis depending on the context. For example, the initial teacher education programme has a hybrid approach to education whereas an individual course within it is referred to as online.

Human connectedness: In the context of this study, human connectedness is defined as the human interactions mediated by digital technologies that underpin professional relationships between lecturer and ECE student teacher.

Teacher educator: the term “teacher educator” refers to academic staff in tertiary education who specifically educate student teachers in initial teacher education programmes. Teacher educators can also be referred to as lecturers and tutors. In the context of this study, the term lecturer will be used as this was the term used by participants in the research project.

Teacher professional identity: teacher professional identity is defined as how teachers view themselves as teachers. This view is shaped by their values, attitudes and beliefs towards teaching.

ECE student teacher: ECE student teacher refers to adult learners enrolled in initial teacher education programmes in preparation for entry as beginning teachers into the early childhood education sector. In the context of my study, the ECE student teachers are enrolled in a one-year early childhood online initial teacher education programme at one university in Aotearoa New Zealand. In my study student teachers will be referred to as ECE student teacher participants. This is because the term “ECE student teacher participant” clarifies and locates the ECE student teachers’ voices as part of a research study whilst acknowledging their initial teacher education journey in early childhood education.

Initial Teacher Education (ITE): initial teacher education (ITE) refers to institutions that provide entry-level qualifications for adult learners to prepare to become beginning teachers. In the context

of Aotearoa New Zealand, ITE provides qualifications that are a combination of theory (course work) and practice (practicum experience). In my study, the majority of the theoretical component of the qualification is undertaken online with two on campus block elements.

Professional relationships: professional relationships in this thesis are defined by *Our Code, Our Standards: Code of professional responsibility and standards for the teaching profession (CoPRS)* (Education Council, 2017) and *Te Whāriki He whāriki mātauranga mō ngā mokopuna o Aotearoa Early childhood curriculum (Te Whāriki)*, (MoE, 2017). Professional relationships refer to reciprocal, collaborative learning focussed relationships between the lecturer and the ECE student teacher. In the wider context of education, professional relationships refer to reciprocal, collaborative learning focussed relationships between all stakeholders. For example, including whānau and community.

Graduate Diploma of Teaching Early Childhood in the context of my study, the Graduate Diploma of Teaching Early Childhood (GradDipT ECE) is a one-year entry level qualification into the teaching profession offered through the University of Waikato, Aotearoa New Zealand. A prerequisite of applicants for the programme is an undergraduate degree. The undergraduate degree can be from any discipline. At the time of this research, the GradDipT ECE consisted of nine courses and two blocks of five-week practicum experiences. There were also two compulsory on-campus blocks, one at the beginning of the year (orientation and start of first course) and another at the end of the first semester (some workshops connected to first semester courses).

Mihimihi/pepeha: mihimihi and pepeha are Māori ways of introducing yourself and establishing connections with others at the beginning of events. In the context of online learning in Aotearoa New Zealand, students often share their mihimihi at the beginning of a programme or course as a way on introducing themselves and establishing relationships with others.

1.6 The structure of the thesis

This thesis consists of five chapters. Chapter one introduces the overall focus of my study and provides a background for my research. It also explains my interest in online connectedness between ECE student teacher participant and lecturer, identifies the research question, and details my rationale for undertaking this study.

In chapter 2 (Literature Review), I review and critique literature that relates to the following topics: the place of human connections in teaching and learning with a focus on higher education, human connections in online community of learners and the community of inquiry framework and the affordances of digital technologies in mediating human connections within online learning

communities . Finally, although not the main focus of this study, the concept of teacher professional identity is defined and explored and the place of initial teacher education in shaping teacher professional identity is explained. In chapter 3 (Research Design), I present and explain the theoretical framework for this study. I explain the research paradigms, methodology, and methods used in this study whilst providing a justification for their place in this research. I also discuss the research process including participant selection and ethical issues considered during the research. Finally, I explain how data were gathered and analysed before detailing how trustworthiness and credibility were maintained.

In chapter 4 (Findings), I analyse data gathered from the semi-structured interviews, discussion forums and focus groups. Analysed data is presented under the following three categories: ECE student teachers' experiences of human connections with their lecturers in the online learning environment; ECE student teachers' perceptions of how digital technologies enable or constrain human connections with their lecturers; and finally, the implications of experiencing human connections with lecturers on the ECE student-teachers' teacher professional identity.

In the final chapter (Discussion and Conclusion), I present a discussion of the findings which responds directly to the research questions. The chapter ends with a summary of key points from this research, opportunities for future research and a conclusion.

The following chapter reviews literature that is pertinent to this research study.

Chapter Two: Literature Review

2.1 Introduction

The previous chapter established the goal of this thesis to enhance understanding of how ECE student teachers in a hybrid early childhood initial teacher education (ITE) programme experience human connections with their lecturers.

This chapter reviews the literature and provides context related to the topic of human connections between student teachers and their lecturers in online learning environments in initial teacher educator programmes. Following Cresswell and Guetterman's (2021) six step framework for literature reviews, I identified the key terms "human connections" AND "relationships OR interactions" "online OR distance" and undertook a Boolean search for relevant literature. After an initial analysis of the literature, I widened the search to respond more precisely to the research focus by including key terms such as "community of inquiry" and "initial teacher education". It was also important to search for literature in the Aotearoa New Zealand context as this is an integral part of my study. I then followed steps two to six of the framework to complete the literature review. To undertake the literature review I primarily accessed academic sources through The University of Waikato's library and databases located via The University of Waikato's online databases and Google Scholar. The main databases used included EBSCO, ProQuest, EBSCOhost, Taylor Francis Online and ELSEVIER.

The topics of online learning communities, community of inquiry, human connections and professional teacher identity have been a focus of research for many years, so although I draw primarily on contemporary literature to inform this research, I also refer to seminal works that have been instrumental in shaping current understandings of both topics. The earlier scholarship that informs my study includes: Beauchamp and Thomas (2009), Bell (2011), Beijaard et al. (2004), Dewey (1938), Garrison et al.

(2000), Gibbs (2006), Giles (2011) and Vygotsky (1978). These works have also been influential in shaping my online teaching pedagogy and professional teacher identity and therefore have been an inspiration for this study.

This chapter is divided into three sections. The first section investigates literature on the significance of human connections in professional relationships with a focus on human connections in higher education. The second section of the literature review then continues with an overview of sociocultural community focussed models of distance learning which nurture human connections

between lecturer and student in the online learning environment. The models of distance education that are reviewed are an online Community of Learners and the Community of Inquiry model (Garrison et al., 2002). Of particular interest within this section are the roles of social presence and teaching presence in engendering human connections in the online learning environment. The second section concludes with an examination of scholarship that considers how the affordances of digital technologies can mediate human connections between lecturer and student teacher.

Finally, the third section of the literature review considers teacher professional identity. Although not the main focus of this study, I deemed it important to include in the literature review as it is a discussion point within the thesis. In particular, this section examines scholarship on the place of initial teacher education in shaping teacher professional identity. Based on the literature, a case is made for a socio-cultural approach to the development of teacher professional identity which influences the understanding of professional relationships.

2.2 The place of human connections in professional relationships.

Scholarship attests to the importance of interpersonal connections in teaching and learning across all sectors of education. For example, whether in the early childhood, primary school, high school or higher education context, there is a consensus in literature that teaching is a human activity and, as a profession, is concerned with people. Consequently, it is strongly tied to relationships (Gibbs, 2006; Giles, 2011; Merry, 2017; Palmer, 2017; Sewell, Smith & Kennedy, 2019). Macmurray further emphasises the importance of relationships between teacher and student by stating “that teaching is one of the foremost of personal relations” (1964, p. 17).

In defining the teacher-student relationship Claessens et al. (2017) follow the approach of Wubbels et al. (2014) and conceptualises the teacher-student relationship “as the generalized interpersonal meaning students and teachers attach to their interactions with each other” (p. 364). The experiences of the teacher and students in their day-to-day interactions form the interpersonal meanings of the relationship and consequently “moment-to-moment interactions between a teacher, and [their] student, are the building blocks for their relationship” (Claessens et al., 2017, p. 478).

The nature of interaction between teacher and student is described by Giles as “subjective and relational in quality” (2011, p. 80). However, subjective and relational qualities vary and are influenced or even determined by contextual factors. These factors along with individual experience of the phenomenon of teacher-student relationships means that the same interactions are perceived in different ways by different people (Chapman, 2021; Knewstubb, 2016; Martons, 2007). The

teacher-student relationship can take various forms including a positive interaction of mutual respect and concern, one of indifference, or one that is challenging because either partner in the relationship feels unsafe or threatened (Giles, 2011).

A socio-cultural view of the teacher-student relationship emphasises that “the relationship between teacher and student provides the context for teaching and learning of a range of cognitive, social, personal, moral and behavioural learning goals” (Bell, 2011, p. 12). Essentially, the relationship between teacher and student is central to, and facilitates all, aspects of the learning process. In effect, without professional relationships in educational contexts effective learning cannot take place. Although acknowledging that there are many ways to define the relationship between student and teacher, Bell (2011) identifies three key constructs. These constructs are a “relational space, a discursive relationship and a spiritual connectedness” (Bell, 2011, p. 15).

These three spaces have different features. The relational space is theorised as a “physical, social, or emotional space between teacher and student, a space for the meeting of two minds and hearts” (Bell, 2011, p. 13). The space can be one of close, trusting relationships or one that is distant and cold (Bell, 2011). It is also described as a space where participants are responsive to each other’s needs in a caring and sensitive manner (Sewell & St George, 2019). A discursive relationship acknowledges the power relations that exist within it and supports a respectful, equitable, caring relationship that recognises how language can position both teacher and student (Bell, 2011; Kecskemeti, 2011). Finally, acknowledging the spirituality of professional relationships in teaching is to affirm the relational connectedness between teacher and student. In this context, spirituality is regarded as the state of being with the world and others, answering the innate human need to be connected, a connection that Palmer defines as the “eternal yearning to be connected with something larger than our own ego” (2003, p. 121). Spirituality is also affirming of the notion of love defined by Bell (2011) as a “caring, devotion, dedication and commitment” rather than “sexual or romantic” (p. 14).

Relational connectedness is more than a place of educational transactions (Bell, 2011; Gibbs, 2006), but one that Giles describes as “a basic bond of the relationship such that, as human beings we live to relate; connectivity being basic to our humanity” (2008, p. 2). It is through experiencing relational connectedness that students can construct a holistic identity of self and connectedness with the world (Gibbs, 2006). In the context of this thesis, the term *holistic* is used to “acknowledge that humans are whole, integrated beings in which the mind, spirit and body along with the environment in which people live, are constantly interacting, interdependent and changing” (Gibbs, 2006, p. 204). The mind, body, spirit and environment of people are not separate entities but interconnected and fluid, forever forming and reforming.

An integral element of a pedagogy of relational connectedness is the need for teacher educators and student teachers to understand their own identity. By looking inwards and gaining an understanding of self, they can be authentic and have integrity in their professional relationships with others (Gibbs, 2006). Palmer (2007) identifies three elements essential to the understanding of self that underpin teacher identity and consequently the relational pedagogy of teachers. He contends that the “intellectual, emotional and spiritual pathways” are the “inner landscape of the teaching self” (2007, p. 5). This leads to a framework by which to know one’s being and identity. Palmer (2007) defines the pathways in this way:

By intellectual I mean the way we think about teaching and learning- the form and content of our concepts of how people know and learn, of the nature of our students and our subjects. By emotional I mean the way we and our students feel as we teach and learn- feelings that can either enlarge or diminish the exchange between us. By spiritual I mean the diverse ways we answer the heart’s longing to be connected with the largeness of life – a longing that animates love and work, especially the work we call teaching. (p. 5)

Good student teacher relationships have positive outcomes for students. For example, some authors note that good student teacher relationships have a positive influence on students’ self-efficacy which can lead to students being motivated to achieve their learning goals (Li & Yang, 2021, Reilly & Osterman 1992; Wood, 2017). Other authors consider the benefits of good student teacher relationships for the positive wellbeing of students and teachers (Claessens et al., 2017; Eloff et al., 2021). Some literature proposes that positive student teacher relationships can be transformative as they promote students’ engagement in their learning (Farr-Wharton et al., 2018; Newbury, 2011; Rimm-Kaufmann, 2015). Palmer (2000) further describes the significant impact and influence of the student teacher relationship when he comments that teachers can “...shine a light that allows new growth to flourish, while others cast a shadow under which seedlings die” (p. 78).

2.2.1 Human connections in higher education

The nature of lecturer-student relationships in higher education has long been the subject of interest (Hagenauer et al., 2022). Scholarship identifies that from a sociocultural perspective, the tenets of positive lecturer (teacher) student relationships are relevant across all education sectors. For example, in higher education teaching is viewed as a human endeavour where the lecturer student relationship is integral to the teaching and learning process (Hagenauer et al., 2022; Tormey, 2021; Quinlan, 2016). Additionally, as in other sectors, positive lecturer student relationships promote; student motivation, engagement in study, better learning outcomes, wellbeing, enjoyment, an indication of high-quality teaching and positive attendance rates (Anderson, 2019; Hagenauer et al.,

2022; Tormey, 2021; Quinlan, 2016). However, in higher education there are certain nuances about the nature and context of the lecturer-student relationships that are different from other educational sectors which will now be explained.

Interestingly, a recent point of similarity with other educational sectors is how professional relationships are understood in higher education (Quinlan, 2016). For example, literature reports that traditionally in higher education, lecturer-student relationships have focussed on academic connections between lecturer and student (Quinlan, 2016). However, contemporary scholarship is increasingly recognising the importance of relational pedagogies that emphasise socio-emotional aspects of the professional relationship in higher education (Anderson, 2019; Gravett & Winstone, 2022; Quinlan, 2016). For example, some recent research asserts that lecturers in higher education have an academic and affective role to play in nurturing positive lecturer-student relationships (Kahu & Picton, 2019; Sundani et al., 2021; Quinlan, 2019). The affective role includes relational aspects such as care, approachability, support, trust and responsiveness (Eloff et al., 2019; Hagenauer et al., 2022; Kahu & Picton, 2019). In support of this assertion, Quinlan (2016) argues in her theoretical paper that it is important that lecturers bring their authentic selves to the lecturer-student relationship by sharing their passion for a subject, displaying enjoyment, humour and fun, conveying compassion and empathy and, being enthusiastic and committed to their teaching. Traditionally, these socio-emotional teacher behaviours have been theorised through the lens of immediacy or sense of distance and can include indicators such as lecturers being approachable, accessible, facial expression, eye contact, vocal expression, sharing stories, using student names and meeting with students out of class time (Anderson, 2019; Tormey, 2021; Quinlan, 2016;). However, Tormey (2021) provides an alternative way of understanding the lecturer-student relationship which emphasises that it is not just the teacher behaviour that is key to nurturing the lecturer-student relationship but that the student response to the behaviour is also important. Tormey (2021) proposes a three-dimensional model of understanding the lecturer-student relationship in higher education which has three core dimensions of affiliation/warmth, attachment/safety and assertion/power/status. This model recognises that relationships are emotionally rich and culturally sensitive. In the context of Aotearoa New Zealand this is significant as Anderson (2019) Notes that teachers' behaviours can be interpreted in different ways by different cultures which can have impact on the students' perceptions of being cared for. For example, Anderson's (2019) qualitative study undertaken in one Aotearoa New Zealand university consisting of 55 successful students sought to understand "diverse students' understandings of good teaching and effective learning" (p. 4). A key finding from this study was that the concept of care was identified by the participants as an indicator of good teaching and effective in supporting learning. The participants' perception of care from their lecturers was

embodied through their lecturers “care about their discipline, care about teaching and care about students” (Anderson, 2019, p.1). Anderson (2019) further asserts that in the context of Aotearoa New Zealand, it is key that lecturers employ relational pedagogy to understand how cultural interpretations of care, especially care for and affirmation of students' cultural identities impact student engagement and learning outcomes. This was especially important of Maaori, Pasifika and international students who appreciated the ways that lecturers were interculturally competent and adjusted their teaching in ways to help them learn. For example, in the case of international students, they appreciated the way in “lecturers ‘tolerated’ their slowness as they became more familiar with the learning environment” (Anderson, 2019, p. 12).

A key point of difference is that professional relationships in higher education between teacher and student are an adult-to-adult interaction where adult behaviour is an expectation (Eloff et al., 2019; Hagenauer et al., 2022; Tormey, 2021; Quinlan, 2016). As such, an adult-to-adult professional relationship will have certain expectations and behaviours that both lecturer and student bring to the relationship which influences and shapes sometimes differing experiences to that of other educational contexts (Eloff et al., 2019; Kahu & Picton, 2019). For example, students attending higher education tend to have different experiences to those attending early childhood education, primary or high school education. Such experiences may include being away from home for the first time, attending to financial matters or feeling a sense of isolation as they attend to the academic requirements of higher education and neglect the social elements of study. Each of these factors can influence the students’ engagement and participation in their professional relationships with their lecturers (Eloff et al., 2019; Gravett & Winstone, 2022; Richardson et al., 2017). Also, the student demographic in higher education can be more diverse than other sectors with a student cohort potentially made up of older students, indigenous students, international students and disabled students who bring their own characteristics to the lecturer student relationship (Amundsen, 2022). Because of such diversity, the teacher student relationship in higher education can be complex, contextual and dynamic as it is uniquely shaped by both what the teacher and the student bring to it (Hagenauer et al., 2022; Tormey, 2021; Quinlan, 2016).

Another aspect of the adult-to-adult professional relationship in higher education is that both teachers and students are responsible for nurturing positive, reciprocal professional relationships (Kahu & Picton, 2019). On the part of the lecturer, this includes reflecting on the power dynamics inherent in the lecturer-student relationship and employing pedagogical strategies to try to “flatten” power dynamics so that professional relationships are less hierarchical in nature thus nurturing collaborative, reciprocal relationships. An example, of how lecturers can flatten lecturer-student

relationships is provided by Ouyang et al. (2020) who noted that fostering a student-focused learning environment contributed to the development of non-hierarchical collaborative partnerships between lecturer and student. On the part of the student, there is a responsibility to engage in professional relationships with their lecturers. For example, in Kahu and Picton's (2019) qualitative study which followed 19 undergraduate students in their first year of study in an Australian university, findings indicated that the lecturer-student relationship is influenced by the personality and behaviours of both student and Lecturer. The authors asserted that there needs to be an openness on both the part of the lecturer and student to engage in a relationship. This point is illustrated by one of their study participants who noted the challenge for one of her lecturers when

They're [students] not too friendly. So, when she walks in the classroom, no one talks to her except a few students. So, I often feel very sorry for her, and I feel like she wants to have that relationship with her students, but some aren't up for it. (Kahu and Picton, 2019, p. 31)

However, although literature asserts the need for joint responsibility in foster professional relationships, there is clear consensus from lecturers and students that within professional relationships there is the requirement for boundaries. For example, Anderson (2019) noted that lecturers in their study expressed the importance of clear boundaries within professional and personal interactions. The lecturers provided appropriate behaviours as being the use of first names, responding to emails and listening to concerns. However, inappropriate behaviours were identified as taking students home and sharing meals.

Another factor that significantly differentiates higher education from other educational sectors is that lecturers do not have to be qualified teachers or be accountable to a teaching professional body (Murtonen & Vilppu, 2020; Robinson & Hope, 2022). Recent literature consistently asserts that lecturers are appointed for their subject knowledge and may have little pedagogical understanding or knowledge which can impact on teaching quality and student success (Daumiller et al., 2020; Fraser, et al., 2019; Kabilo & Nkoane, 2025; Murtonen & Vilppu, 2020; Robinson & Hope, 2022). This factor is clearly evident in Ndebele's (2022) study. Ndebele (2022) employed a qualitative methodology to understand the experiences of sixteen lecturers from one university in South Africa who had enrolled in a two-year postgraduate diploma in higher education. The aim of enrolling in the qualification by the study participants was to gain a teaching qualification and subsequent pedagogical understanding of teaching and learning. For as one participant stated "I have realised that holding a masters, PhD or post-doctoral qualification in a particular field does not make one a good teacher. One needs a teaching qualification to be a better teacher" (Ndebele, 2022, p. 29). Findings from the study indicated that the participants benefited from the course as they learnt new ways of understanding teaching and learning which included how to relate to students.

As determined by the literature, lecturers without any teacher training can have a detrimental effect on the development of positive lecturer-student relationships in higher education. This is because literature asserts that a relational pedagogy and its associated teaching strategies are key to the nurturing of positive lecture-student relationships (Anderson, 2019; Eloff et al., 2019; Quinlan, 2016). As a consequence, scholars suggest that either lecturers with teaching qualifications are employed by higher education institutions, or that professional learning and development (PLD) is provided (Eloff et al., 2019; Kabelo & Nkoane, 2025; Kahu et al., 2019;). However, the provision of PLD can be a challenge in a neoliberal environment where attributes such as the importance of positive lecturer-student relationships are not recognised, the work of lecturers in this space not valued and where the provision of PLD takes time and funding (Quinlan, 2016). However, such a position could be considered shortsighted by higher education, as literature clearly evidences the correlation between positive lecturer-student relationships with student retention and success (Anderson, 2019; Quinlan, 2016).

Another factor that differentiates higher education from other educational sectors is its broader political and economic contexts. In higher education a neoliberal political agenda prevails which purports key principles of “mass education, managerial practices derived from the corporate sector, reduced government funding and increased external accountability” (Kenny, 2025. p. 221). Consequences of a neoliberal agenda, which has the primary goal of the marketisation of higher education, directly impacts on developing positive lecturer-student relationships in several ways. For example, marketisation of higher education can position students as consumers (Anderson, et al., 2019; Land, 2017; Tomlinson, 2017). Bunce et al.’s (2017) quantitative study comprising of 608 undergraduate student across 35 different universities in England sought to understand to what extent students positioned themselves as consumers and potential impacts of this on academic performance. One impact that is relevant to the lecturer-student relationship is that students can potentially be more demanding with behaviour more akin to being a ‘customer’ in their interactions with university staff sometimes perceived as entitlement. This can cause tensions in what is defined as positive lecturer-student relationships in higher education. This point is further explored in Anderson et al.’s (2019) qualitative study, undertaken in Aotearoa New Zealand, which comprised of 55 successful university students. The aim of the research was to understand the participants views of good teaching and effective learning. Although not a direct focus, a key theme of the findings was the concept of care. From the participants perspective they described “good teachers as people who care about their discipline, care about teaching and care about students, powerfully influencing students’ engagement with subject matter, enthusiasm for learning and aspirations for the future” (Anderson et al., 2019, p. 1). This is of relevance to my study as from a sociocultural

perspective, care is a core characteristic of positive lecturer-student relationships. Findings from Anderson et al.'s (2019) study were encouraging in that many students challenged literature that positions them as "demanding fragile consumers" (Anderson et al., 2019, p. 15). However, there were some who explicitly positioned themselves as such. For example, one participant shared " You know ... we are paying to be here. ... we don't want to think about it like that, but when you're 29 and you know what money is, you're kind of thinking, if I don't understand this, I need to come and see you to talk to you about it" (Anderson et al., 2019, p. 15). Anderson et al. (2019) discuss that although there is a reasonable expectation of joint responsibility in the lecturer-student relationship, many students "lamented" (p. 16) their positioning as consumers as they appreciated their lecturers as "human beings who inspired students to be" (p. 16). Indeed, findings acknowledged the constraints that marketisation can have on lecturers in nurturing such connections which as Giles (2011) notes can be squeezed out.

From a lecturers perspectives', neoliberal factors that contribute to the squeezing out and sidelining of positive lecturer-student relationships include; heavy workloads, large classes, focus on research including Performance-Based Research Fund (PBRF), lack of professional development in teaching, job insecurity, short term contracts and lack of value of the lecturer-student relationship (Kahu & Picton, 2019; Hagenauer et al., 2022; Quinlan, 2016). However contemporary scholarship is recognising the value of positive lecturer-student relationships in nurturing student success. As a result, it is urging higher education organisations to recognise, value and afford the time and space needed to foster such professional relationships (Anderson et al., 2019; Gravett & Winstone, 2022; Hagenauer et al., 2022; Kahu & Picton, 2019).

One final factor that needs to be taken into consideration in the context of higher education, as opposed to other educational sectors, is the extensive growth of online and hybrid learning mediated by digital technologies (Alshahrani et al., 2017; Bates, 2015; Doan et al., 2015). A strong body of literature asserts that in online and hybrid, as in face-to-face classes, lecturer-student positive professional relationships are crucial for students' academic success and engagement in their programmes of study (Anderson et al., 2019; Hagenauer et al., 2022; Kahu & Picton, 2019). However, nurturing positive lecturer-student relationships can be a challenge online as interaction is mediated by digital technologies (Cornell et al., 2019; Nyysti & Walters, 2018; Rush, 2015). Scholarship suggests the need for professional learning and development opportunities to support lecturers development of pedagogical understanding and strategies for supporting online positive lecturer-student relationships (Anderson et al., 2019; Hagenauer et al., 2022; Kahu & Picton, 2019). One key theoretical approach for the nurturing positive online professional relationships between lecturer

and student is an online community of learners (Fiocjk, 2020; Harasim, 2017; Palloff & Pratt, 2005; Sekulich, 2020). The concept of an online community of learners, and the community of inquiry model that supports online interactions, which will be explained later in the chapter.

However, conversely, there are arguments in the literature which contend that lecturer-student professional relationships in higher education are not necessary for learning to occur. For example, one such view is voiced by people who are proponents of self-directed learning (SDL) theory (Bonk & Lee, 2017; Zhu et al., 2020). Knowles (1975) describes SDL as:

a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies and evaluating learning outcomes. (p. 18)

Zhu et al. (2020) note that the skills associated with SDL could be particularly useful for learners undertaking online courses such as Massive Open Online Courses (MOOCs). Caruso (2011) identifies that SDL has roots in behaviourism as concepts embedded within it can be connected to the process of Skinner's operant conditioning. Indeed, behaviourist learning theory aligns well with computer facilitated instruction (Harasim, 2017; Khoo, 2010) but leaves little room for positive teacher-student relationships. This is because the positivist paradigm of this learning theory is, by its scientific nature, objective and can be potentially devoid of emotions as it is fundamentally transactional in nature.

Summary

There is a significant body of research that focuses on the teacher/lecturer-student relationship in all educational contexts. From a sociocultural perspective, the key tenets and outcomes of positive teacher-student relationship can apply to the context of higher education. However, there are certain nuances of the teacher-student relationship that are unique to higher education. These nuances include adult to adult relationships, lecturers not necessarily being qualified teachers, the neoliberal agenda of higher education and the growth of online and hybrid programme delivery.

A growing body of scholarships examines the nature of positive lecturer-student relationships in higher education in Aotearoa New Zealand. For example, Giles (2008) investigated the nature of the lived experience of the lecturer-student relationship in initial teacher education. The findings of his study prompted Giles to challenge the underlying neoliberal ideology of initial teacher education in New Zealand. Indeed, Giles called for a "humanising of the educational experience through the educating and re-educating of teacher educators and teachers towards essential understandings of relationship" (p. 8). More recently, Chapman (2021) explored how connected lecturer-student relationships impacted on student learning outcomes. Chapman's findings demonstrated that if a

teacher's way of being with students is perceived as authentically caring, then learning flourishes; conversely when caring is absent, learning can be negatively impacted. Chapman's findings offer insights into the teacher's way of being with students and calls for "an ontological approach that is humanistic and egalitarian, respects students as human beings" (2021, p. i).

Although Giles' and Chapman's research focusses on the experiences of the lecturer-student relationships in Aotearoa New Zealand, little research has been undertaken on online ECE student-lecturer relationships from a phenomenographic approach in the online component of hybrid learning. In particular, the student experience of the human connections in online lecture-student professional relationships in initial teacher education has not been fully examined. My study aims to add to existing research by examining interpersonal connections in online professional relationships between the lecturer and the ECE student teachers from the student perspective, in the setting of one online initial teacher education programme in Aotearoa New Zealand.

2.3 Human connections in the online learning environments

Human connections in the online learning environment can be theorised from a socio-cultural perspective by employing several underpinning frameworks. The next section of this chapter provides a literature review of two key theoretical frameworks that are implemented in online learning environments to nurture interaction within the community. The frameworks are an online community of learners and the Community of Inquiry framework. Each is now presented in order.

2.3.1 Online Community of Learners

The concept of an online community of learning is informed by the premises of a social constructivist view of learning which places human connections at the forefront of the student-teacher relationship. This view of learning recognises that learning is not an individual action, but one that is influenced and mediated through social interaction with others within the cultural context of the learner (Harasim, 2017; MoE, 1996; MoE, 2017; MoE, 2007; Pacansky-Brock et al., 2020; Santrock, 2019; Vygotsky, 1978). Dewey, widely considered the founder of social constructivist theory, highlighted the importance of the human connection by stating that "[l]earning is a social activity – it is something that we do together, in interaction with each other, rather than an abstract concept" (Dewey, 1938, p. 5).

Alongside Dewey, a significant Social Constructivist theorist is Vygotsky (1896-1934). Vygotsky emphasised the social and cultural influence on learning and asserted that learning occurs through interaction as people co-construct meaning together within their social and cultural milieu (MoE,

2017; Claiborne et al., 2014; Rogoff, 2003). Central to Vygotsky's theory is the Zone of Proximal development (ZPD). The ZPD "is the difference between a learner's actual developmental level as determined by independent problem solving, and the higher level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). The ZPD aligns with other social constructivist theoretical perspectives such as Bruner's (1990) concept of scaffolding; the Māori approach to learning of tuakana-teina (Bevan-Brown, 2009). Rogoff's concept of guided participation (Drewery & Claiborne, 2013; Rogoff, 2003) and Bronfenbrenner's bioecological model (Bronfenbrenner, 1979). Essentially, the many theoretical concepts recognise that through interaction with a more knowledgeable other, a person can move from one level of understanding to a higher one.

Neo-Vygotskian Rogoff, an American anthropologist and key proponent of socio-cultural theory, suggests that Vygotsky's theory is socio-historical, as it emphasises the societal contexts of learning, rather than the social and cultural influences as denoted by socio-cultural theory (Rogoff, 2003). Rogoff is associated with the term 'socio-cultural theory' of which the key premise is that learning is a social and cultural process where learners collaborate and participate to make meaning with others (MoE, 2017; Rogoff, 2003). A fundamental belief is that through shared participation learners draw on the funds of knowledge of their cultural communities to learn what is relevant and important (Gonzalez, Moll & Amanti, 2013). As Rogoff states in relation to the place of culture in the learning process:

Culture itself is not static but is formed from the efforts of people working together, using and adapting tools provided by predecessors and in the process of making new ones. Interactions in the Zone of Proximal development are the crucible of development and culture, in that they allow children to participate in activities that would be impossible for them alone, using cultural tools that must be adapted to the specific practicalities at hand, thus both passed on to and transformed by new members of the culture. (Rogoff, 1990, p. 16)

From a socio-cultural perspective, the development of positive professional relationships is essential to the creation of an effective community of learners and relationships should be "characterised by a sense of responsivity, reciprocity and authenticity" (Sewell & St George, 2019, p. 244). The interactions within the community of learners are social, intellectual and emotional. The teacher-student relationship sits as a human connection within the online community and therefore an online community of learners is relevant to my study.

Scholars agree that the development of an online community of learners is an effective and powerful method of learning and teaching online (Fiocjk, 2020; Harasim, 2017; Palloff & Pratt, 2005; Sekulich, 2020). An online community of learners is underpinned by socio-cultural theory that relies on the understanding that “people learn through interactions with people, places and things” (MoE, 2017). Essentially, teaching and learning is a lived reality of the people involved and therefore their experiences influence how they learn and perceive learning. Harasim (2017) further explains the socio-cultural perspective that:

knowledge is constructed by the individual through their interactions with the community and the environment. Knowledge is thus viewed as dynamic and changing, constructed and negotiated socially, rather than something absolute and finite. (p. 60)

It is also frequently reported in literature that the use of asynchronous online discussion (AOD) to facilitate interaction and collaboration in online communities of learners is effective and achievable (Forbes et al., 2024). The affordances of AOD to support socio-cultural learning in an OCL are demonstrated by a participant in a study undertaken by Wegerif in 1998, who asserted that the:

benefits of collaborative learning were derived from taking part in a developing conversation where many of the replies were much more considered than might have been the case had the same people met and talked together over several hours. Questions were raised, answered, developed, returned to and reconsidered in a much more polite and considerate manner than would have been the case in the face-to-face situation. (p. 48)

Students who feel a human connection and are members of a community of learners are more likely to feel a sense of belonging in their online learning communities, less likely to feel isolated or alienated from their study, more likely to feel engaged and motivated in their studies, have a better sense of wellbeing, achieve better learning outcomes and less likely to withdraw from their courses (Baker et al., 2020; Baum & McPherson, 2019; Gimpel, 2022; Hewett et al., 2016; Mehta & Aguilera, 2020; Parker et al., 2021).

Scholars have identified various theoretical frameworks that define and explain the connections experienced by learners in online learning environments. For example, Moore’s Theory of Transactional Distance focussed on the dialogue between teacher and learner as essential to distance education (Cleveland-Innes et al., 2018). Moore identified three key elements that needed to be taken into account when examining the transaction between teacher and learner in online learning environments. These factors are dialogue, structure, and learner autonomy (Moore, 1997).

Following on from Moore's Theory of Transactional Distance (1997), Garrison focussed on the dialogue between teacher and learner as pivotal to the enactment of distance education which in conjunction with the ability for interaction via the Internet led to the development of the Community of Inquiry Framework (COI) (Cleveland-Innes et al., 2018; Garrison et al., 2000).

In my study the theoretical framework used to investigate human connections in online ITE programmes is the COI framework developed by Garrison et al. in 2002. This framework is now discussed in the next section of the literature review, with a focus on human connections.

2.3.2 The Community of Inquiry framework

One significant framework developed to understand presence in online community environments is the Community of Inquiry (COI) framework (Garrison et al., 2000; Garrison et al.; 2001; Garrison, 2017). Developed in 2002, the COI framework continues to be a popular and well used framework to inform teaching in online learning environments (Castellanos-Reyes, 2020; Fiock et al., 2021; Jan et al., 2019; Morrison & Jacobson, 2023; Stenbom, 2018). The COI framework aligns well with my study as it conceptualises presence in online learning environments as multi-dimensional, collaborative and social constructivist in nature (Garrison et al., 2000; Garrison et al., 2001; Garrison, 2017; Castellanos-Reyes, 2020; Swan, 2019). The COI framework's social constructivist orientation is consistent with Vygotsky's (1978) socio-cultural learning theory that posits that learning is a social activity and occurs as people interact with people, places, and things in their social and cultural contexts (MoE, 2017). Pertinent for this study, the social constructivist orientation of the COI framework also aligns with the Aotearoa New Zealand early childhood curriculum and education documents (Education Council, 2011; Education Council, 2017; MoE, 2017a; MoE, 2017b; MoE 2018c).

The COI theoretical framework consists of three core elements that are interrelated to form an online community of teachers and students (Garrison et al., 2000; Garrison et al., 2001; Garrison, 2017; Swan, 2019). The core elements are social presence, teaching presence, and cognitive presence (Garrison et al., 2000; Garrison et al., 2001; Garrison, 2017). Within the COI framework, social presence is defined as "the ability of participants in a community of inquiry to project themselves socially and emotionally, as 'real' people (i.e., their full personality, through the medium of communication being used)" (Garrison et al., 2000, p. 94). Cognitive presence is defined as "the extent to which learners are able to construct and conform meaning through sustained reflection and discourse in a critical community of inquiry" (Garrison et al., 2000, p. 4). Finally, teaching presence is defined as "the design, facilitation and direction of cognitive and social processes for the

purpose of realising personally meaningful and educationally worthwhile learning outcomes” (Garrison et al., 2000, p. 5).

Although the three presences in the COI are all interrelated and essential for an effective online learning environment, social and teaching presence have been identified as the most useful constructs in nurturing a human connection between lecturer and student (Brown, 2023; Carillo & Fiores, 2020; Fiock et al., 2021; Lowenthal & Dunlap, 2018; Swan, 2017; Turk et al., 2022). The concepts of social presence and teaching presence in relation to human connections between lecturer and student are discussed in the following sections.

2.3.2.1 Social presence

Social presence theory originated in the 1970s and is accredited to Short, Williams and Christie (1976). Short et al., (1976) defined social presence from a social psychological perspective as “the degree of salience of the other person in a mediated interaction and the consequent salience of the interpersonal interaction” (p. 65). Essentially, social presence is how someone is perceived as being there and real during interactions that are mediated via the affordances of different digital technologies. In discussing the ways in which digital technology enables and supports social presence, the original definition (Short et al., 1976) focussed on the means through which digital technology itself mediated social presence. This technological deterministic stance positioned some types of digital technology as being better able to support social presence cues than others (Oh et al., 2018). However, literature has subsequently identified that this perception of how digital technologies afford social presence has changed; it is now widely accepted that people can nurture social presence cues in online learning environments that are not dependent on the type of digital technology they are using (Andel et al., 2020; Oztok & Kerhwald, 2017; Patel, 2021). It is important to contextualise Short et al.’s theory of social presence (1976), as it was developed before the invention of the Internet. Correspondingly, the digital technologies that Short et al. (1976) referred to were primarily television and radio. In addition, Short et al.’s (1976) theory of social presence was not related to education but rather business communications and effective advertising (Swan, 2017). It was not until the 1990s and the growth of the Internet in mediating distance learning that social presence theory was applied to educational contexts (Gunawerdana, 1995).

The concept of social presence has been widely researched. Despite the extensive interest in social presence there is not one agreed definition; however, there is consensus about prioritising the nature of ‘being’ and ‘belonging’ to a community (Swan, 2017). For example, Lowenthal (2010) defines the degree of salience as the “quality or state of being there” (2010, p.16) as people communicate through a computer-mediated medium. Swan and Shih argue that social presence is

“the degree to which participants in computer-mediated communication feel affectively connected one to another” (2005, p. 115). Picciano considers social presence as “a student’s sense of being and belonging to a course” (2002, p. 22), while other literature suggests that it is to do with the level to which a person is thought to be ‘real’ through the interactions that they have with others (Aragon, 2003; Mackay & Freyberg, 2010; Lowenthal, 2009). This ‘realness’ includes the person’s history, humour, emotion, and personality (Kehrwald, 2008). In educational contexts, this notion is supported by Garrison and Anderson (2004) who define social presence “as the ability of participants in a community of inquiry to project themselves socially and emotionally, as ‘real’ people (i.e., express their full personality), through the medium of communication being used” (p. 29).

In an effort to enhance understanding of researchers’ definitions of social presence, Lowenthal and Snelson (2017) analysed key literature to investigate seminal definitions of social presence. Lowenthal and Snelson (2017) used Google Scholar to find the top 50 cited articles using the search term “social presence”. Each article was downloaded, and the authors coded the definitions of social presence in the articles. Through their analysis Lowenthal and Snelson (2017) found that the definitions and focus of social presence have tended to fall into the categories of “being there, being real, projecting ones-self, connecting, belonging and community” (Lowenthal and Snelson, p. 9, 2017). Oztok and Kehrwald (2017) elaborate on the categories of social presence as being, belonging and relational by adding that the focus of social presence should be on “the relative salience of interpersonal relationships if we are to understand the relational aspects of being online” p. 261). Oztok and Kehrwald’s (2017) definition aligns well with Garrison’s definition that “social presence is the ability of participants to identify within a group, communicate openly in a trusting environment, and develop personal and affective relationships progressively by way of protecting their individual personalities” (p. 25, 2017). In my study I will be drawing from Garrison’s (2017) and Oztok and Kehrwald’s (2017) definition of social presence, because they emphasise the importance of the trusting, interpersonal and affective elements of relationships which are integral to nurturing a human connection.

While scholars agree that social presence is important for nurturing the human experience in online learning environments, from a socio-cultural perspective the notion of online identity and social presence can be contentious. For example, Oztok (2014, 2019) draws our attention to social absence. Social absence is defined not as the opposite of social presence but rather the way in which not all identity is necessarily conveyed in the online learning environment. In particular, it can be that important identity features such as culture are latent in the online learning environment.

Motivated by a social justice agenda, Oztok calls for a reconceptualising of online learning environments to consider social presence and social absence in achieving an equitable learning environment (Oztok, 2014; Oztok 2019). Oztok (2020) challenges the perception that the online learning environment is neutral and suggests “that the hidden curriculum of online education maintains cultural hegemony and creates inequitable learning experiences through cultural differences” (p. 112). Oztok (2019) asserts that hegemonic discourses within the online learning environment can marginalise and exclude people. In particular, Oztok (2014) identifies that “race, ethnicity and nationality are common points of juncture between presence and absence for those not positioned on top of the hierarchy privilege” (p. 3). Oztok’s (2014) study investigated the ways in which 28 Canadian students in two graduate level online courses were able to portray their identity in online learning environments. Data for the study were gathered through discourse analysis and semi-structured interviews. Findings indicated that some students, who tended not to be part of the dominant discourse, were socially present in the online learning space but felt that their full identity was not evident in their online representation. For example, according to one student her “online self is only half of who she really is” (Oztok, 2014, p. 4). In this context, the student was referring to her ethnic background as being incomplete in the online space. The student’s rationale for this feeling was that her online representation was via a photograph, and she did not have the opportunity to share her full ethnicity in the online learning space. The student explained her sense of social absence as follows:

My ethnicity was absent as I did not have a chance to bring it in. I wasn’t a Canadian whose ethnic background is Caribbean; I was just Caribbean. So, if I had a chance to be who I was, I would probably use my ethnic background...I am Canadian-Caribbean. Not just Caribbean. So, if you make me Caribbean, you erase my Caribbean-Canadian background. (Oztok, 2014, p. 5)

In contrast with Oztok’s findings , Yildiz (2009) noted that for some students with English as an additional language, the online learning environment provided “a reduced anxiety-provoking environment in which they could interact with native English speakers more often, reveal personal information, and express their beliefs, values, and attitudes” (p. 62). The students in Yildiz’s (2009) study also revealed that they were able to share more about their cultural identity in the online discussion forums than they had experienced in face-to-face learning environments, where concern about their language proficiency inhibited conversation. The findings from the study also indicated that when text contributions in the online discussion forums were personalised through the use of vocatives and expressly used phatics to maintain a social connection while taking an interest in people’s cultural backgrounds the text contributions were perceived to have a higher social presence

than contributions that did not. In this context vocatives refer to addressing someone directly usually by name and phatics refer to communication that is social and emotional in nature rather than informative. The pedagogical use of vocatives and phatics in this study demonstrates how they are used to form a personal connection through the written word. These studies suggest that a digital platform, such as an online discussion forum can vary in terms of the perceived social presence, depending on how the written contributions are constructed. Therefore, the studies suggest the importance of a pedagogically developed Netiquette policy to guide interaction in the online space to support social presence (Archard, 2022; Forbes et al., 2024; Rokx, 2022; Yildiz, 2009). These studies also highlight the importance of cultural inclusion in online learning environments.

Oztok's (2014, 2019, 2020) findings are particularly relevant in the Aotearoa New Zealand context where the scholarship and education documents highlight the importance for Māori and Pasifika learners to experience culturally inclusive learning environments to support equitable learning outcomes (Archard, 2022; Card, 2022; Education Council, 2011; 2017; MoE 2017; 2018). From a different perspective, for some students choosing what aspects of their identity they disclose to their online learning community can support a social justice agenda and provide a sense of equity. For example, students who may have traditionally experienced marginalisation because of socio-economic factors, disability or othering can choose what they would like to disclose to their learning community, thus avoiding judgement and negative bias from their peers and lecturers. This point is substantiated by Pacansky-Brock et al. (2020) who assert that students specifically choose online learning environments that facilitate written communication to avoid judgements that "come along with being seen or heard...This may include judgements about a student's accent, the color of their skin, a physical disability, or a speech impediment like stuttering or slurring of words" (p. 12). Providing a different perspective on the question of bias and online learning, the potential for online learning bias is shown in a study undertaken by Baker et al. (2022) who analysed the responses of lecturers to students across 124 MOOCs located in the USA. Findings from the study indicated that lecturers' responses privileged white males who were 94% more likely to receive a response than others in the courses.

The importance of social presence in nurturing human connection in online learning environments
Social presence in an online learning community is an important component of building interpersonal connections which, in turn, can help reduce students' feelings of isolation and alienation from their studies (Kotero et al., 2019; Patel, 2021; Turk et al., 2022). Students who learn in a Community of Inquiry can experience a sense of human connections facilitated by social presence. Social presence can help mitigate students' feelings of isolation and disconnection in several ways. For example,

social presence can foster motivation and engagement in studies, a sense of belonging to the community and engender feelings of wellbeing (Kotero et al., 2019; Potts & Stebleton, 2021; Boon-Nanai et al., 2022).

The benefits of students feeling a human connection in their online studies can include higher retention rates. The benefits of this are twofold. For institutions, there are lower attrition rates in their courses, so funding is not adversely affected. For students, they are more likely to engage in their studies and complete their programmes successfully (Kotero et al., 2019; Potts & Stebleton, 2021). Human connections which enable positive teacher-student relationships are particularly important for students who are considered at risk or marginalised (Kotero et al., 2019). This is because they often feel a disconnection from their learning environment which means that they do not complete their studies. This point is of particular significance as a key goal of online learning is to enable students, who would not normally access education due to marginalisation, to engage in study in online programmes. As a result, programmes and courses offered online potentially consist of a more diverse body of students than face to face equivalents (Hartnett et al., 2023; Kotero et al., 2019; Parker, et al., 2021)

Online learning opportunities do not always offer the benefits of social presence. There may be a tension between mass models of education that are low cost and intended to cater for large numbers of students, and education programmes designed and facilitated to provide human connections within the online learning environment. Pacansky et al. (2020) use the analogy that large scale programme models that focus on maximising enrolments at lower costs in technology deterministic courses will provide a learning experience ‘akin to grabbing a dinner from a drive through’ (p. 16). Conversely, Pacansky et al. (2020), show that for students in online programmes which are designed to value and provide a sense of connection “Learning is more like experiencing a delicious meal customised to one’s own dietary needs with meaningful dialogue and connections” (p.16). In this sense, the dialogue and connections can be likened to a banquet where all the participants bring ingredients, and where cooking takes place together, or takes place by taking turns. This is followed by the sharing of food and the feedback to various chefs, followed by modification of recipes for the next time around.

Aspects of social presence which engender human connections in the online learning environment.
As indicated in the previous section, human connections in the online learning environment are predominantly enacted via social presence. Literature suggests that from a student perspective, particular constructs of social presence promote a human connection with others in the online

learning environment. These constructs are communication and caring. Each construct will now be reviewed.

Communication

From a socio-cultural perspective, teaching is regarded as a social practice where language and communication are fundamental to the teacher-student relationship (Al Tawil, 2019; Bell, 2011; Forbes, 2024). In relation to social presence, “communication exchanges perceived as socially present are seen as warm, sociable, active, and personal” (Hayes et al., 2020, p. 18).

Scholars argue that the theoretical constructs of intimacy and immediacy underpin the role of verbal and non-verbal interaction in interpersonal relationships (Al-Ghaith, 2015; Al Tawil, 2019). These elements are closely related but have significant differences. Intimacy refers to the sense of connectedness that communicators feel they have with each other, and immediacy is the psychological distance felt between the communicator and the communicatee (Al-Ghaith, 2015; Gordon, 2017; Oh et al., 2018). Intimacy relies on non-verbal communication such as facial expression, eye contact, and discussion theme (Aragon 2003; Mackey & Freyberg, 2010). In the online learning environment Intimacy is evident in the online learning through the “... factors such as physical distance, eye contact, and smiling” (Gunarwardena & Zittle, 1997, p. 9). For example, the use of video can lead to higher levels of perceived intimacy as students are able to see their lecturers and experience intimacy features such as smiling.

Research shows that immediacy is the degree of perceived psychological closeness between two people (Baker, 2004; Dalonges et al., 2016; Gordon, 2017). Immediacy is recognised as verbal and non-verbal communication which is “produced through eye contact, facial expressions, tone of voice, posture, and movements” (as cited in Baringer & McCroskey, 2000, p. 178). In an online learning environment, a sense of immediacy can be nurtured by a lecturer by various means such as using personal names in written text, humour, enthusiasm, self-disclosure, sharing stories and personalised feedback (Dalonges, 2016; Lowenthal & Mulder, 2017). Immediacy can also be nurtured by the use of paralanguage for expressing emotion that can be absent in the online learning environment (Whiteside et al., 2017). Paralanguage is summarised in the following definition:

...as the vocal but nonverbal elements of speech. Paralanguage includes...features of speech such as tone and stress, but also factors as volume and speed of delivery, voice quality, hesitations, and non-linguistic sounds, such as sighs, whistles, or groans. (American Psychological Association, 2023, para 1)

Paralanguage can be captured by asynchronous video, audio recordings and synchronous video conferencing platforms such as Zoom that are not edited or scripted, thus opening opportunities for

the features of paralanguage to be enacted (Archard & Merry, 2012; Pacansky-Brock et al., 2020). Aside from paralanguage being present in such spaces, it can also be captured in text which is referred to as textual paralanguage. Textual paralanguage can convey nonverbal communication using emojis, symbols, sharing of photos, written acknowledgement and expression of emotions and exaggerated spelling (Al Tawil, 2019; Gordon, 2017; Hayes et al., 2019).

Caring

From a socio-cultural perspective, human connections between lecturers and student teachers are also achieved through lecturers' demonstration of caring for students (Bell, 2011; Gibbs, 2006). The inclusion of caring is important as it is a fundamental human trait (Noddings, 1992) and therefore a significant aspect of the human connection in teacher-student relationships. Noddings (2013) comments that "taking relation as ontologically basic simply means that we recognise human encounter and affective response as a basic fact of human existence" (p. 4). Bell (2011) defines caring in the context of teaching as "a concern for the welfare and wellbeing of the cared-for" (p. 75). Research shows that caring is bidirectional and can only be viewed as an act of caring when the cared-for demonstrates that the care has been received (Bell, 2011). The teacher as carer needs to take an interest in the cared-for to have knowledge of them to be responsive to their needs (Rabin, 2021). Literature notes that caring in education contexts goes beyond "gentle smiles and warm hugs" (Goldstein, 1998). but is reflected in teacher-student interactions in a variety of ways. These include the teacher showing empathy, sharing knowledge to support learning, feedback, helping to solve problems, indicating concern for student welfare and listening to students (Bell, 2011; Noddings, 2013). The caring relationship in teaching also requires that teachers have a cultural appreciation of different types of caring and value their students' funds of knowledge (Gonzalez et al., 2013). When the learners recognise that they are being cared for, it can have beneficial effects on their motivation to study (Carr et al., 2021).

Caring in the online learning environment is evident through aspects of social presence (Plant & Asselin, 2014; Rabin 2021). Research asserts that through a lecturer's social presence in the online learning environment, care can be perceived by students through sensitive, culturally responsive feedback, timeliness of communication, showing empathy, lecturer authenticity, making the effort to communicate, role modelling positive caring in online interactions, expressing passion about their topics, and demonstrating the belief that their students can succeed (Burke & Larmar, 2020; Gleason & Mehta, 2022; Plant & Asselin, 2014; Post et al., 2017; Whaanga, 2022).

However, as noted by Giles (2011) caring in online learning environments can be "squeezed out" (p. 9) by neo-liberal ideology in tertiary education. Such ideology can be indifferent to individual needs

and ignore the relationality of teaching (Ruth, 2018; Preston & Carlyon, 2019). In the Aotearoa New Zealand context, Ruth (2018) contends that core neo-liberal tenets such as assumptions of capital and individualism conflict with te ao Māori concepts of care and empathy and can marginalise students in their online learning communities. Gleason (2022) concurs with Ruth (2018) and shares that in her experiences as a student she “had seen less acknowledgement of the culture and humanity of students and more neoliberal patriarchal systems of control and conformity” (2022, p. 12).

2.4.2.2 Teaching Presence

Garrison et al. (2000) state that teaching presence is the “design, facilitation and direction of cognitive and social processes for the purpose of realising personally meaningful and educationally worthwhile learning outcomes” (Garrison et al., 2000, p. 5). As this quote suggests, teaching presence is an essential component of the COI as it supports and connects cognitive and social presence in the online learning environment to enable students to achieve their learning goals. Scholars comment that these cognitive and social presences are not naturally occurring in the online learning environment and need to be nurtured through teaching presence (Carillo & Flores, 2020; Castellanos-Reye, 2020; Fiock et al., 2021; Morrison & Jackman, 2023; Wong et al., 2021). Garrison (2017) subsequently elaborated on the notion of teaching presence by stating that “the role and responsibility of teaching presence is to monitor and manage the transactional balance, and by engaging learners, collaboratively guide the process of achieving worthwhile and intended learning outcomes in a timely manner” (2017, p. 69). Teaching presence within the COI is important for students in online learning environments as it supports a sense of belonging, a sense of satisfaction in study and enables learner success (Fiock et al., 2021; Kauppinen et al., 2024; Morrison and Jacobson, 2023).

Teaching presence has three distinct subsections that define and describe how the different elements of it are enacted in the online learning environment. The first element of teaching presence is “instructional design and organisation” (Garrison, 2017, p. 71). Instructional design and organisation are considered the macro-level of online learning as they are concerned with the design and set up of the online learning environment (Anderson et al., 2001; Garrison et al., 2000; Garrison, 2011; Garrison, 2017). The design and organisational elements of teaching presence are essentially the development of the online learning process and include setting curriculum, creating assessment, and developing processes and activities to reflect the social constructivist COI framework (Fiock et al., 2021; Garrison, 2017; Turk et al., 2022). Of note for this study, is that as “instructional design and organisation” (Garrison, 2017, p. 71) sits at the macro-level of teaching presence these factors are

often outsourced and not actually developed by the lecturer in the course. For example, they can be developed by eLearning departments or course leaders which are then taught in by lecturers.

The second element of teaching presence, facilitating reflection and discourse (Garrison, 2017), is fundamental to enabling the learning intent of the COI. The facilitation of discourse and reflection by the teacher provides opportunities for learners to develop personal meaning while collaboratively determining a shared understanding of course content (Fiock, 2021; Garrison, 2017; Morrison & Jacobson, 2023). Facilitation and reflection are the pedagogical decisions which enable the “means and methods instructors use to help students engage with course content, course information and materials” (Fiock et al., 2021, p. 57). Usually, the second element of teaching presence is predominantly found in asynchronous online discussion (AOD) as learners and teachers engage collaboratively in text-based dialogue (Fiock, 2021; Garrison, 2017; Turk et al., 2022). As a facilitator in AOD, the teacher has particular roles and responsibilities which include questioning with the intent of scaffolding learning, encouraging the sharing of different perspectives, guiding the direction of dialogue and responding to student comments (Anderson et al., 2001; Fiock et al., 2021). However, as Morrison and Jacobson (2023) caution, it is important to establish a balance of teacher participation in the AODs as too much teacher intervention can stifle and shut down student participation which is the antithesis of the intent of teacher presence mediated via facilitation and reflection in the online learning environment.

The final element of teaching presence is direct instruction (Garrison et al., 2000; Garrison, 2011; Garrison, 2017). Direct instruction refers to the academic leadership of the teacher in sharing their knowledge/expertise to scaffold knowledge development within the COI (Garrison, 2017; Fiock et al., 2021; Turk et al., 2022). Garrison and Arbaugh (2007) emphasise the importance of the role of teacher direct instruction by identifying the “need to diagnose comments for accurate understanding, inject sources of information, direct discussions in useful direction, and scaffold learner knowledge to raise it to a new level” (p. 164). Direct instruction can occur in AOD but is often associated with assessment where teachers provide feedback (Fiock et al., 2021). However, there can be multiple avenues for direct instruction which can also be evident in video lectures and the prescribed reading of course related literature. This is a key point in considering how teaching presence conveyed through direct instruction can be integrated throughout the online learning environment.

The concept of teaching presence in the COI is not without complexity. For example, Wang et al.’s (2021) quantitative study undertaken at a university in China found that there was a disparity between how teachers and students perceived teaching presence in the online learning

environment. The study, which involved 1073 students, 21 lecturers and 11 teaching assistants, sought to identify the differences in how lecturers and students perceived the elements of teaching presence and how they rated them in importance. The findings indicated that students had a significantly lower perception of teaching presence in the online learning environment than their lecturers. In particular, students highlighted that they felt teaching presence to be low in facilitating discourse. This disparity is of concern as the students rated facilitating discourse to be an important aspect of teaching presence, rating it higher than direct instruction which exactly contradicted the perceptions of their lecturers. The consequences of such different perceptions of teaching presence might result in negative learning experiences and outcomes for students. Consequently, it is important to investigate the reasons for these disparate perceptions and adjust the design and facilitation of the online learning environment appropriately. In other research, studies have found that lecturers have a higher perception of the levels of teaching presence in the online environment than students; this again causes concern as lower perceptions of teaching presence can lead to a sense of isolation, dissatisfaction with study and lower learner success outcomes (Fiock et al., 2021; Kauppinen et al., 2024; Morrison and Jacobson, 2023). Blaine (2019) offers some insights into divergent perceptions of lecturers and students teaching presence, by examining how the different roles and prior experiences of each group influence their experience and perceptions of teaching presence in the online learning environment. Recognising the importance of examining the difference in perceptions of teaching presence by lecturers and students, scholars have identified the need for further research in this area particularly from a student perspective (Blaine, 2019; Fiock et al., 2021; Turk et al., 2021; Wang et al., 2021).

Another point emphasised by scholars is the importance of the pedagogy underpinning the use of digital technologies so that they are used in appropriate ways to nurture teaching presence in online learning environments (Carillo & Flores, 2020; Fiock et al., 2021; Kauppinen et al., 2024). A pedagogical emphasis in the use of digital technologies ensures that there is not an overuse in the online learning environment which can lead to students feeling overwhelmed. Affordances of digital technologies need to be used to their full advantage and in pedagogically appropriate ways to mediate teaching presence.

Aspects of teaching presence that engender human connections in the online learning environment. Teaching presence in the online learning environment can contribute to nurturing a human connection through making lecturers present, real and engendering a sense of personal connection and trust among COI participants (Garrison et al., 2000; Kauppinen et al., 2024; McCarthy, 2020; Morrison & Jacobson, 2023). Each element of teaching presence can engender a perception of

human connections between students and their lecturers mediated through their individual affordances (Fiock et al., 2021; Kauppinen et al., 2024; Morrison & Jacobson, 2023).

The design and organisation of courses can be personalised by individual lecturers to include videos of themselves, one to one interaction and the inclusion of resources selected by individual lecturers. Such personalisation can support a human connection as it can create a sense of intimacy by reducing the perceived psychological distance between student and lecturer (Kauppinen et al., 2024; Morrison & Jacobson, 2023). In particular, one to one interaction is especially effective in nurturing teaching presence in the online learning environment as it indicates to students that their lecturer is both real and present (Morrison & Jacobson, 2023). However, personalisation during the design and organisation of courses is not without challenges, as this aspect of teaching presence is often prepared in advance of the teaching period and can consist of standard formats that are used by a number of lecturers to facilitate their courses (Fiock et al., 2021). This standardisation of course format, content and assessment can “squeeze out” personal connections (Giles, 2008; Giles 2011). Despite the potential constraints of standardised resources, it is interesting to note in Fiock et al.’s (2021) research that findings indicated that not only was teaching presence evident in standard format courses, but also there were differences in how students perceived the teaching presence of the individual lecturers who were facilitating the courses. Their quantitative study, which included 160 participants and was undertaken in a US university, attributed the findings to the ways in which lecturers’ personalised their courses with content and resources such as videos and readings. The study also suggested that the different teaching backgrounds of lecturers may influence how they engage in the online learning environment to promote teaching presence. The impact of lecturers’ different teaching backgrounds being reflected in their online teaching presence is emphasised by Coker (2018). Coker (2018) conducted an ethnographic study of 18 lecturers in an undergraduate degree to investigate how lecturers’ purpose, pedagogy and philosophy influenced their teaching presence in the online environment. Findings indicated that lecturer’s online teaching presence did reflect in their purpose, pedagogy and philosophy within the online learning environment which in turn influenced the way in which students were positioned and the way in which they engaged with the students. These findings are significant as they suggest that even within a standardised format, lecturers’ presence can be perceived by students as personal, as lecturers’ different pedagogies will reflect their different values, attitudes and beliefs about teaching and learning in their online engagement.

The teaching presence element of facilitation and dialogue is usually evident in the AOD component of online courses. When lecturers actively contribute and participate in the AODs it can create a

sense of community and connection with students (Fiock et al., 2021). This can be attributed to the way that lecturers engage in the AOD, respond to students, guide the discussion and model scholarly interaction (Forbes et al., 2024). The impression that lecturers are present, contextually engaged and co-constructing knowledge to extend learning encourages feelings of connection and reassurance (Forbes et al., 2024; Garrison, 2017). As previously stated, there needs to be a fine balance between too little and too much teaching presence in the AODs (Garrison & Anderson, 2011; Garrison, 2017; Morrison & Jacobson, 2023). Too much teaching presence in the AODs can shut down student participation, knowledge construction and can feel more akin to surveillance than co-construction (Forbes et al., 2024). Conversely, too little teaching presence in AODs limits opportunities for lecturers to uphold their responsibilities in the COI and can lead to a feeling of disconnection for students.

Direct instruction, the remaining element of teaching presence tends to be associated with feedback and assessment in the online learning environment (Fiock et al., 2021; Morrison & Jacobson, 2023; Turk et al., 2022; Wang et al., 2021). However, scholars assert that feedback must be personalised to the learner, warm in delivery and conveying lecturer knowledge to support a human connection (Fiock et al., 2021; Kauppinen et al., 2024; Morrison & Jacobson, 2023). Literature identifies that digital technologies such as asynchronous video and audio recordings and synchronous digital technologies such as Zoom are useful for conveying personalised feedback (Kauppinen et al., 2024). Direct instruction is also effective in developing human connections between lecturers and students when it is sent as a one-to-one message either by email or in the LMS. When a student feels that they are being addressed by name and responded to individually, a feeling of intimacy is created and the psychological distance between lecturer and student is reduced (Fiock et al., 2021; Morrison & Jacobson, 2023). Another aspect of direct instruction that supports a human connection between lecturers and students is that the feedback is timely and regular as it can build a positive rapport (Fiock et al., 2021; Kauppinen et al., 2024; Morrison & Jacobson, 2023). The importance of these feedback components is demonstrated in Morrison and Jacobsen's (2023) qualitative research undertaken in a Bachelor of Education programme in Canada which involved four participants. The findings indicated that through regular, timely and strength-based feedback "students know their work was being seen and that they were on the right track" (p. 1). Feedback in this instance provided reassurance and motivation for the participants in the study as they engaged in the programme. From the literature reviewed, scholars clearly agree about the value of direct instruction in nurturing a human connection between lecturer and student but emphasise the nature and delivery of the feedback in its effectiveness.

2.3.4 The role of digital technologies in mediating social presence and teaching presence in online community of learners

As established in the preceding literature, lecturer interaction in the online learning environment plays a critical role in fostering both lecturer social and teaching presence, as underpinned by the Community of Inquiry framework. However, lecturer interaction in the online learning environment can only exist when mediated by some form of computing technology (Yao & Ling, 2020). Therefore, this section of the literature review pays attention to the digital technologies that foster lecturer social and teaching presence in the online learning environment.

2.3.4.1 Digital technologies that foster social presence in the online learning environment

In higher education contexts, learning management systems (LMSs) such as Moodle and Blackboard tend to be the main digital platforms (Kahu et al., 2024; Mhlongo et al., 2023). Toland et al. (2014) define LMSs as “ web-based systems that use synchronous and asynchronous technologies for the purpose of delivering educational content and facilitating communication between course participants (p. 222). Although LMSs provide an online space for interaction their typically structured and formal format can hinder conveying socio-emotional, informal spontaneous interaction between lecturer and student (Chai et al., 2024; Kahu et al., 2024; Pacansky-Brock et al., 2022). Interestingly, in Kahu et al.’s (2024) study, although students acknowledged the formality of their university LMS Moodle, students thought that it was an “excellent” (p. 306) learning platform where the “official” (p.306) teaching could take place. However, literature suggests that to overcome the formality of interaction within LMS, lecturers can employ a range of asynchronous and synchronous digital technologies to nurture social presence (Borup et al., 2011; Kahu et al., 2024; Pacansky-Brock et al., 2022)

One such asynchronous digital technology is video recordings (Borup et al., 2011; Collins et al., 2018; Marshall & Love, 2025; Martin & Bolliger, 2022). Video recordings are regarded in literature as an important digital technology in fostering lecturer social presence as they can convey the ‘realness’ of the lecturer recording them (Borup et al., 2011; Marshall & Love, 2025; Martin & Bolliger, 2022). For example, in Marshall and Love’s (2025) mixed method study of 36 undergraduates, the findings indicated that the students perception of their lecturers was greatly enhanced by watching weekly video recordings. The lecturers sense of being human is captured on video through facial expressions, vocal intonation and use of paralanguage (Borup et al., 2011; Marshall & Love, 2025; Martin & Bolliger, 2022). The use of video embedded in LMS has undoubtedly nurtured the social presence of lecturers with their students. This is illustrated in Borup et al.’s (2011) qualitative study the participants reported that when they watched videos recorded by their lecturers, it felt like they

were having a conversation with their lecturer, that their lecturer was a real person and that they felt an emotional connection with them. This was attributed to the visual and audio affordances of the video recordings that nurtured a sense of intimacy characteristic of lecturer social presence.

However, other literature notes that some students report that the use of video, although useful for raising lecturer social presence, feels like a one-way transaction from lecturer to student rather than a reciprocal action which therefore does not engender a sense of student social presence (Chai et al., 2023). It is also of interest to note that in Collins et al.'s (2018) quantitative study, findings indicated that the participants reported no significant difference between perceived levels of lecturer social presence nurtured through video recording or through text-based communication. However, the study emphasised that the nature and content of the text-based communication was influential in nurturing social presence.

In contrast to the use of asynchronous digital technologies such as video, lecturers can also employ synchronous and asynchronous communication platforms such as Zoom, Microsoft TEAMS and Discord to interact with their students (Chai et al., 2023; Kahu et al., 2024; Vistisen & Jensen, 2021). Two affordances of such tools key to fostering social presence are their chat and video conferencing options. The chat tool within these communication platforms enable lecturers and students to engage in reciprocal communication which are informal, fast and organic (Chai et al., 2023; Kahu et al., 2024; Vistisen & Jensen, 2021) For example, Kahu et al.'s (2024) qualitative study, undertaken in one Aotearoa New Zealand university, sought to understand how two tools (Discord and TEAMS) could work in conjunction with the university LMS to enhance student engagement and learning. Findings from the 19 participants found that the use of Discord opened up opportunities social and informal interaction which are key indicators of social presence. The asynchronous and synchronous affordances of the tools also helped mitigate potential inequality in access for students, as students had the choice of how and when they engaged in the conversations. The dual affordances of the chat tools in these platforms contrast with the one choice of asynchronous interaction in video conferencing. Although video conferencing can open opportunities for nurturing both lecturers and students social presence, there are some considerations in relation to equity that need to be considered (Chai et al., 2023). For example, students who access online education due to time constraints or living overseas may not be able to attend scheduled conferences due to the inflexibility of timing and being in different time zones. Another issue of equity is when students are asked to put their cameras on. Although, this creates a higher level of social presence for the student, it can also create an inequitable learning environment for student who cannot do so due to technological limitations, financial constraints and home environments (Chai et al., 2023; Massner, 2022; Pal, 2025).

2.3.4.2 Digital technologies that foster teaching presence in the online learning environment

As discussed earlier in the chapter, teaching presence consists of three core elements which are instructional design and organisation, facilitating reflection and discourse and direct (Garrison, 2017). Each element is now explained in relation to how digital technologies can mediate it in the online learning environment.

The first element of teaching presence, instructional design and organisation (Garrison, 2017), is the planning of the online learning environment. This consists of setting curriculum, creating assessment, and developing processes and activities for student to engage with (Fiock et al., 2021; Garrison, 2017; Turk et al., 2022). In higher education, institutions tend to use web-based learning platforms as their LMSs such as Moodle and Blackboard to enable this aspect of teaching presence to take place (Czerkawski & Lynman, 2016; Martin & Bolliger, 2022; Rekha, 2024). Of significance is that the instructional design and organisation of the LMS consists of “purposeful course designs that promote interaction, participation, and communication in the online learning environment “ (Robinson and Hulliger, 2008, p. 107). This aspect of teaching presence sets the climate for learning but crucially the opportunities for the remaining two elements of teaching practice to be enacted in the online learning environment.

For example, the second element of teaching presence, facilitating reflection and discourse (Garrison, 2017) tends to occur predominately in AODs as lecturers engage with students to co-create meaning and scaffold learning (Fiock, 2021; Garrison, 2017; Turk et al., 2022). So, it is essential that the instructional design includes space and opportunity for AOD to occur.

The final element of teaching presence is direct instruction (Garrison et al., 2000; Garrison, 2011). This element is associated with lecturers having the opportunity to provide feedback through various touch points in the instructional design and organisation of the LMS Often associated with assessment direct instruction can also be mediated via one-to-one spaces in the LMS, video recordings and feedback (Fiock et al., 2021; Morrison & Jacobson, 2023; Turk et al., 2022; Wang et al., 2021).

2.3.4.3 The role of pedagogy and lecturer digital fluency in fostering lecturer social and teaching presence in the online learning environment.

A clear consensus in literature is that for the use of digital technologies to be effective in nurturing lecturer social and teaching presence, lecturers need to have an online teaching and learning pedagogy (Elsayary et al., 2024; Coker, 2018; Pacansky-Brock et al., 2022). This is crucial because simply replicating face-to-face teaching strategies in an online environment is often ineffective and overlooks the transformative potential of digital technologies in online learning (Li & Wang, 2024;

Stone, 2019). Literature also determines that it is also pivotal that a lecturers online pedagogy is responsive to the diversity of students' needs who are enrolled in higher education online programmes and adjust their use of pedagogical strategies and digital technologies to meet these needs (Pacansky-Brock et al., 2022).

Another important aspect is that lecturers have the opportunity to enhance their digital fluency, which includes developing greater technical proficiency through professional learning and development" (Elsayary et al., 2024; Harrison, 2024; Pacansky-Brock et al., 2022). This is key because lecturers lack of digital fluency and technical proficiency can limit opportunities in using digital technologies to their full advantage to nurture social and teaching presence in the online learning environments (Elsayary et al., 2024; Coker, 2018; Pacansky-Brock et al., 2022).

Indeed, it is critical that online lecturers have an opportunity to access professional learning and develop (PLD) for both online pedagogy and digital fluency to enable them to teach effectively in online learning environments (Anderson et al., 2019; Hagenauer et al., 2022; Kahu & Picton, 2019). However, as discussed earlier in the chapter, creating opportunities for PLD can be a challenge in a neoliberal environment where its provision of it requires time allowance and funding (Quinlan, 2016).

The next section of the literature review explains the development of professional teacher identity in initial teacher education.

2.4 The development of teacher professional identity in initial teacher education

Although not the main focus of this study, I considered it relevant to include scholarship related to teacher professional identity in the study as the concept is included as a discussion point in this thesis. Therefore, this section examines the literature on the concept of teacher professional identity and the contribution that initial teacher education may make to the development of ECE student teachers' professional identity. The literature is presented under the following two subheadings: the concept of teacher professional identity and the role of teacher education in developing professional identity.

2.4.1 The concept of teacher professional identity

By identity I mean the evolving nexus where all the forces constitute my life coverage in the mystery of self: my genetic make-up, the nature of the man and woman who gave me life, the culture in which I was raised, people who have sustained me and people who have done me harm, the good and ill I have done to others and to myself, the experience of love and suffering-and much, much more...Identity is a moving intersection converging in the irreducible mystery of being human. (Palmer, 1993, p. 13)

The concept of teacher professional identity emerged as a distinctive research area in the late 1990s and has subsequently been a topic that has been, and continues to be, widely investigated (Beauchamp & Thomas, 2009; Beijaard et al., 2004; Beijaard et al., 2017; Beijaard et al., 2023; Clandinin & Husu, 2017; Cobb, 2020; Lutovac & Flores, 2021; Flores, 2020). Scholars assert that teacher professional identity can be challenging to define or to capture in one particular conceptual framework, as multiple variations exist (Beauchamp & Thomas, 2009; Beijaard et al., 2004; Beijaard et al., 2023; Cherrington, 2017; Flores, 2020). For example, in a review of 22 research of professional teacher identity undertaken between 1988 and 2000, Beijaard et al. (2004) found that the studies either had different definitions of teacher professional identity or did not include a definition at all. Their review of the research studies also concluded that conceptual frameworks were not clearly defined and that methodologies tended to focus on a cognitive rather than a sociological perspective (Beijaard et al., 2004). This cognitive perspective meant a reliance on data from teacher participants and a neglect of the broader socio-cultural influences on teacher professional identity (Beijaard et al., 2004; Cherrington, 2017). However, the research studies reviewed revealed four core elements that Beijaard et al. (2004) considered as essential characteristics of teacher professional identity (see below). The socio-cultural framework was presented by Beijaard et al. (2004) as a foundation for defining and understanding the concept of teacher professional identity and informing ongoing research on the topic. As such, the Beijaard et al. (2004) framework has been included in reviews of research studies seeking to define teacher professional identity, including seminal works by Beauchamp and Thomas (2009) and Izadinia (2013) through to contemporary reviews compiled by Rodriques and Magarro (2019). The ongoing use of the framework in research studies indicates robustness and relevance in its design and therefore, it is foregrounded in this section of my thesis relating to the definition of teacher professional identity.

The first element of Beijaard et al.'s (2004) framework is that teacher professional identity is dynamic, fluid and ever changing as experiences are interpreted and reinterpreted by the teacher. The ongoing nature of these changes underpins the notion of teacher professional identity as a process of lifelong learning. The second element is that teacher professional identity involves

interaction between the person and the context, so it is not entirely unique because contextual factors such as curricula and other education documents will be standard. In other words, teacher professional identity is in part shaped both by prescribed professional features of the teacher's context and their interpretation of them. The third element is that the teacher professional identity consists of sub-identities that can work in accord with each other. When sub-identities do not work in accord, tensions can arise and cause conflict in the person. Fourthly, teacher professional identity involves agency. Agency implies that teachers are active participants in the construction of their teacher professional identity (Beijaard et al., 2004). Beijaard et al. (2023) further progressed this seminal understanding in a more recent definition of teacher professional identity which they explained as the "...result from the interaction between teacher's beliefs, including the norms and values that they hold, on the one hand, and the educational contexts in which they find themselves, including accepted theories of teaching and learning, on the other hand" (p. 766).

Beijaard et al. (2004) called for an expansion of research on teacher professional identity to include underpinning conceptual frameworks from a sociological perspective. Such a paradigm shift is evidenced in later literature reviews compiled by Izadenia (2013), Rodrigues and Mugarro (2019) and Beauchamp (2019). These reviews include more recent research that is underpinned by socio-cultural methodologies for investigating professional teacher identity and, consequently, the construct of teacher professional identity is positioned from a socio-cultural perspective (Beauchamp, 2019; Cherrington, 2017; Flores, 2020; Ruohotie-Lyhty, 2018). For example, Izadenias's (2013) review of 29 empirical studies found that "researchers had mainly used theories with a social approach as the theoretical framework. This clearly shows that identity is regarded as a social entity constructed and reproduced in social settings and influenced by the social communities in which the STs [student teachers] are involved" (p. 709). Rodrigues and Magorro (2019) concur with this view by presenting their working theory of teacher professional identity derived from their thematic analysis of 22 empirical research studies which defines teacher professional identity from a socio-cultural perspective as:

the perceptions, meanings, images and self-knowledge individuals have of themselves. It is, therefore, a fragmented, unstable, dynamic, multidimensional, changeable and intersubjective process, which is constantly being interpreted and reinterpreted by student teachers in their continuous discourses and through the relationships they establish within professional contexts. Related to self, it involves agency...and is influenced by personal values, emotions, beliefs, (scientific and didactic) knowledge and (pedagogical) skills. It is also influenced by (past and present) experiences and historical, sociological and cultural factors. (p. 11)

The next section of this chapter examines the literature on the role of initial teacher education in developing teacher professional identity for ECE student teachers.

2.4.2 The role of initial teacher education in developing teacher professional identity.

Initial teacher education is usually viewed as the foundational context for developing student teachers' professional identities, alongside learning the pedagogies, content knowledge, and skills of the science and craft of teaching (Beauchamp & Thomas, 2009; Bell et al., 2017; Cherrington, 2017; Cobb, 2019; Flores, 2020; OECD, 2022; Varis et al., 2023; Vlasta & Vlatka, 2019). Scholars agree that developing a teacher professional identity during initial teacher education enables student teachers to feel more motivated, build resilience, develop agency and self-efficacy and forge positive relationships with learners and colleagues. It is also recognised that the development of a teacher professional identity facilitates deeper content knowledge, enhances job satisfaction and professional commitment and influences learners' views of themselves as teachers (Beijaard et al., 2023; Cobb, 2019; Cobb et al., 2018; Edwards & Edwards, 2017; OECD, 2022). Such dispositions within teacher professional identity are identified as being beneficial for student teachers transitioning into the teaching sector. These traits are perceived as components of quality in initial teacher education which consequently impacts on the calibre of graduate student teachers who subsequently teach in schools, early childhood education and care settings (Bell et al., 2017; Flores, 2016; Kamenarac, 2021). Scholars contend that this holistic view of teacher professional identity development can counteract the technicist, neoliberal approach to teaching and learning which is becoming increasingly prevalent in Western initial teacher education (Giles, 2011; Kamenarac, 2021).

Teacher professional identity is the product of the convergence of student teachers' personal and professional contextual factors (Beauchamp, 2019; Beijaard et al., 2023). On entering initial teacher education, student teachers bring with them their personal values, beliefs, attitudes and life stories that shape their views and understanding of teaching and learning. These beliefs include how they understand the role of the teacher and the concept of professional relationships (Beijaard & Meijer, 2017). During their time in initial teacher education, the personal contexts of the student teachers' identity converge with the professional contexts of the teaching profession (Cobb, 2019; Edwards & Edwards, 2017; Flores, 2020). Part of this process involves internal validation where student teachers make sense of their professional roles and responsibilities often through the telling of internal stories as well as an external validation where identity formation is influenced by others in the education context such as teacher educators and mentor teachers (Cobb et al., 2018; Cobb, 2019). Scholars report that the process of the convergence of personal and professional contextual factors is

complex, dynamic and ever changing, and not without tensions (Beauchamp, 2019; Cobb, 2019; OECD, 2022; Vlasta & Vlatka, 2019).

However, there is a consensus in the literature that there are key elements during initial teacher education that are significant in providing opportunities for personal and professional identities to integrate. These opportunities are during teaching practice experience in educational settings, and opportunities for reflection in course content (Kamenarac, 2021; OECD; 2022; Russell & Martin 2016).

Teaching practice experience in the form of practicum and placements is widely considered a significant opportunity for student teachers to develop their teacher professional identities (Cobb, 2019; Flores, 2016; Kamenarac, 2021). For example, Kamenarac's (2021) qualitative study undertaken in Aotearoa New Zealand, sought to investigate how initial teacher education can support student teachers to develop a teacher professional identity that enables them to view themselves as "advocate-activists for a socially just, equitable, and inclusive ECE and world" (Kamenarac, 2021, p. 11). Her findings illustrated that the four ECE student teachers considered that "practicum is the most crucial part of the degree, as it defines who you are as a teacher (Pre-service teacher" (Kamenarac, 2021, p. 14). Practicum was described by the ECE student teachers as an experience that "affirms and challenges your [preservice teachers] beliefs, theories that you studied and teaching philosophy that you are developing...allow[ing] you to re-evaluate who you want to be as a teacher" (Kamenarac, 2021, p. 14). Her findings also indicated that opportunities for teacher professional identity were highly dependent on the context of the practicum or ITE setting and the ECE student teachers' relationship with their mentor teacher or lecturers. It was argued that in a setting where ECE student teachers were viewed as having agency and gained a sense of belonging, professional teacher identity could flourish. Conversely, in a setting driven by performance standards and measurement and assessment, teacher professional identity was stifled.

Scholars identify that alongside the professional experience, the opportunity for student teachers to engage in reflective practice in course learning is valuable for developing professional teacher identity. Reflective practice provides opportunities for the development of student teachers' personal epistemology which can shape and transform student teachers' pre-existing attitudes and beliefs (Beauchamp & Thomas, 2011; Brownlee & Berthelsen, 2007; Norsworthy, 2008). However, Kamenarac (2021) cautions that factors such as how lecturers model course content can also contribute to how student teachers' professional identities are shaped. For example, in Kamenarac's study (2021) a participant noted that "the lecturer, as a real role model of a political teacher, made her think, yes! That's the teacher that I want to be" (p. 16).

There is thus clear consensus among scholars that initial teacher education is a significant context for the development of teacher professional identity (Beauchamp & Thomas, 2009; Bell et al., 2017; Cherrington, 2017; Cobb, 2019; Flores, 2020; OECD, 2022; Varis et al., 2023; Vlasta & Vlatka, 2019). However, it has also been suggested that ITE can be a weak intervention in the disruption of student teachers' existing experiences, values, beliefs and understanding about teaching and learning (Beeijaard & Meijer, 2017; Norsworthy, 2008). These pre-existing beliefs, which can be both positive and negative, stem from the student teacher's upbringing, and educational and life experiences and can influence the way in which they understand teaching and learning, including the nature of professional relationships (Beeijaard & Meijer, 2017; Flores & Day, 2006; Gibbs, 2006; Palmer, 2007). This is of interest to this study as prior educational experiences can be in direct contrast to the socio-cultural nature of professional relationships in ECE in Aotearoa New Zealand. For example, Norsworthy (2008) notes that student teachers enter ITE usually with 13 years of school experience that influence and contribute to the construction of their understandings of learning and teaching. Her concern is that "almost irrespective of the teacher education provider's epistemological stance, student teachers experience their initial teacher education, strongly influenced by their own, "apprenticeship of observation (Lortie, 1975), and revert to a techno-rational approach to teaching" (p. 20). This position is collaborated by Vizek Vidovic and Domonvic (2019) who undertook a longitudinal study to investigate changes in student-teachers' beliefs while undertaking their initial teacher education and the findings resulted in significant implications for initial teacher education. The main goal of the study was to determine if student teachers' professional identity could be influenced by the student teachers' experiences of studying in a constructivist learning and teaching environment. The study was undertaken over a five-year period with data collected from 62 participants from three initial teacher education programmes. The authors employed a qualitative metaphor technique (derived from the cognitive theory of metaphor) as an analytical tool to understand experiences and beliefs of the student teachers on entering ITE and when leaving at the end of their study after a five-year programme. To capture the student teachers' metaphoric image, the authors asked them to complete two unfinished sentences. The sentences were: "A teacher is like..... because....." and "A pupil is like.....because....." (Vizek Vidovic & Domonvic, 2019. p. 127).

According to the research analysis four categories of student teacher beliefs about teaching and learning were recognised which consisted of "behaviourist orientation, facilitating orientation, protective orientation and self-referencing orientation" (Vizek Vidovic & Domonvic, 2019. p. 129). It was evident in the findings of this research that a behaviourist orientation towards teaching and learning seemed to prevail in the student teacher professional identity despite experiencing a constructivist approach to teaching and learning throughout their studies. As the authors

commented “it seems that throughout their studies, teaching students remained rooted in their pre-professional beliefs, which were not affected by their academic experience” (Vizek Vidovic & Domonvic, 2019. p. 134). However, it is important to take into account when considering the findings that this research project is small-scale and the questions used to generate data could potentially be answered by people reverting to cliché. For example, the cliché “a pupil is like a sponge because they soak up information” on analysis could be linked to a behaviourist orientation in teaching and learning.

Taking these factors into consideration, these research findings are still relevant to my research as they identify the role that initial teacher education has in developing teacher professional identity, also highlighting the challenges of deep-rooted beliefs and experiences that can be encountered. It is important to note that the literature reviewed in this section has been drawn from face-to-face programmes rather than online initial teacher education programmes where there seems to be less research undertaken.

2.4.3 Summary

Literature on the concept of teacher professional identity has been reviewed in this chapter, to highlight the factors that influence teacher professional identity and explore how teacher professional identity can be shaped by human connections in the online learning environment. Although there is a plethora of research related to teacher professional identity and online learning environments, there is limited research which focuses on how professional teacher identity is influenced in hybrid early childhood initial teacher education programmes in Aotearoa New Zealand. My research seeks to contribute to the field of hybrid initial teacher education by investigating how student teacher professional identity is shaped or not shaped by their experiences of human connections in their online learning environment in Aotearoa New Zealand.

The next section of this chapter provides a summary of the literature review and identifies the gaps for this research to address.

2.5 Summary

The literature review in this chapter considers key areas related to the focus of the current study.

The literature review examines studies which focus on the place of human connections in the online learning environment. Within this part of the review, a case is made for a socio-cultural approach to positioning human connections within a Community of Inquiry. Additionally, the importance of social and teaching presence is demonstrated as being important constructs for nurturing human

connections. The literature reviewed has also explored the ways in which digital technologies can enable or constrain human connections in the online learning environment.

Although not the main focus of this study, the review includes a survey of the scholarship which examines how initial teacher education is foundational in the development of teacher professional identity. Literature indicates that when student-teachers' enter initial teacher education their understanding of teaching and learning is shaped by their prior experiences which include their values, attitudes, and beliefs about the nature of education. Literature shows that teacher professional identity is dynamic, fluid and ever changing as the teacher interprets and reinterprets their experiences according to their interactions with others and their contexts (Beijaard, 2004). During initial teacher education student-teachers' professional identities starts to develop as their personal identities interact with professional contexts. This process can be challenging and cause tensions as new professional understandings can challenge personal beliefs. Literature shows that teaching practice experience and the opportunity to reflect in course content are key factors in supporting the development of teacher professional identity.

Although there has been significant research undertaken related to a sense of human connectedness in online learning environments between lecturer and student, there has been insufficient attention paid to the nature of human connections experienced by ECE student teachers in hybrid ECE initial and how these human connections can model the professional relationships evident in Aotearoa New Zealand curriculum and education documents, this gap demonstrates the relevance of the current research inquiry and the importance of gaining insights into the nature of human connections between lecturer and student teachers in hybrid initial teacher education in Aotearoa New Zealand.

The next chapter describes the research design chosen as the most appropriate to generate data to build knowledge about how ECE student teachers experience human connections with their teacher educators in one hybrid initial teacher education programme in Aotearoa New Zealand.

Chapter Three: Methodology

The aim of this thesis is to inquire into how ECE student teachers in a hybrid early childhood initial teacher education (ITE) programme experience human connections with their lecturers.

To do so, this study seeks to capture the ECE student teachers' voices about what they perceived to be human connections with their lecturers and the reasons for their views. As the focus of this study is on how human connections are experienced in an online learning environment, the role of digital technologies in enabling or constraining human connections is also investigated. Finally, although not the main focus of this research, this study also considers how human connections experienced by ECE student teachers with their lecturers can contribute to shaping their teacher professional identity.

This chapter describes the theoretical framework I used in this study to investigate and develop knowledge of the research topic. The chapter includes an overview of research paradigms in education followed by the methodology, methods, data generation and data analysis approaches used in this study. After detailing the research methodology and methods, the chapter then explains the research process. The research process establishes the research context, how the study participants were selected and any ethical issues related to their selection and participation in the research. This section is followed by a description of the data generation and data analysis. The next section of the chapter explains how the trustworthiness and credibility of the research were maintained. The chapter concludes with a summary.

3.1 Theoretical framework

This study is underpinned by a socio-cultural theoretical framework. A socio-cultural perspective views reality and knowledge as socially, historically, and culturally constructed through the interaction of people, places, and things (Buntting, 2019; MOE, 1017; Santrock, 2019; Rogoff, 1996; Vygotsky, 1978). A key tenet of socio-cultural theory is that the co-construction of knowledge is bidirectional and that a person influences the context just as they themselves are influenced by the context (Santrock, 2019; Sewell et al., 2019; Vygotsky, 1978). I have chosen socio-cultural theory as the theoretical framework for my research as it aligns with my understanding and beliefs of the nature of the social world and my interpretations of it (Lochmiller & Lester, 2017). Socio-cultural theory also provides a relevant explanation of how people learn and develop in educational contexts which is pertinent to this research topic. As such, a research paradigm, methodology, method and data analysis were chosen that are compatible with a socio-cultural positioning. Each element is now

presented with a justification of their choice in relation to this study's underpinning theoretical socio-cultural framework.

3.1.1 Research in education

Educational research is located within the social sciences which seek to study and understand human behaviour. There are five broad categories of the social sciences which are "psychology, sociology, anthropology, economics and political science" (Punch, 2014, p. 9). However, educational research is deemed an applied social science as it focuses on a specific setting or behaviour within a particular discipline (Elliot, 2023; Punch, 2014). A key distinguishing feature of educational research is that it is fundamentally about "people, places, and processes broadly related to teaching and learning, and its purpose is the improvement of teaching and learning systems and practices for the betterment of all concerned and society at large" (Mutch, 2013, p. 24). In other words, the main goal of educational research is to examine teaching and learning and determine ways in which they can be improved for all stakeholders (Elliot, 2023; Mutch, 2013; Pring, 2006). As educational research is concerned with the study of human behaviours within their social and cultural contexts it is "far from being a mechanistic exercise, is a deliberate, complex, subtle, challenging, thoughtful activity and often a lot messier process than researchers would like it to be" (Cohen et al., 2018, p. 3).

3.1.2 Research paradigms in education

A research paradigm is a philosophical framework that comprises the "ontology, epistemology, methodology, and methods" (Scotland, 2012, p. 9), which is used to research or understand a particular phenomenon (Beltran & Bernal, 2020; Cohen et al., 2018; Punch & Oancea, 2014). A research paradigm is underpinned by certain assumptions about how the social world is viewed and understood (Elliot, 2023; Punch & Oancea, 2014; Tolich & Davidson, 2018). In educational research, there are three key paradigms. These are positivist, critical theory and interpretive paradigms (Beltran & Bernal, 2020; Cohen et al., 2018; Mutch, 2013; Rehman & Alharthi, 2016). Each paradigm is compatible with a particular understanding of the nature of reality (ontology), and of how knowledge is created and acquired within that reality (epistemology) (Cohen et al., 2018; Crotty, 2022; Elliot, 2023; Tolich & Davidson, 2018). Consequently, each paradigm has compatible ontological, epistemological, and methodological understandings which are interconnected and define the philosophical framework within which research is undertaken (Alharasheh & Pius, 2020; Denzin and Lincoln, 2018; Punch & Oancea, 2014). The assumptions underlying each paradigm are briefly summarised in the next section. A positivist paradigm is founded on an ontological position of realism (Cohen et al., 2018; Denzin and Lincoln, 2018; Scotland, 2012). Realism assumes that

“realities exist outside the mind” (Crotty, 2020, p. 10). Realism purports that the world exists independently of the individual without the need for human construction or interpretation (Cohen et al., 2018; Day 2024). Compatible with this ontological stance, a positivist epistemology is objective, dualist and seeks to apply what are called the laws of natural (Western) science to understand the social world (Bryman, 2016; Cohen et al., 2018; Lincoln and Guba, 2018). A positivist epistemology determines that “knowledge is hard, objective and tangible” (Cohen et al., 2018, p. 5). The role of the researcher within the positivist paradigm is one of an objective observer who tends to use quantitative methods to measure and verify data through a deductive process of investigation (Beltran & Bernal, 2020; Tolich & Davidson, 2018)

A critical theory paradigm, which is underpinned by a social justice, anti-oppression agenda, has an ontological position of historical realism (Denzin and Lincoln, 2018; Scotland, 2012). Historical realism is defined as “virtual reality shaped by social, political, cultural, economic, ethnic and gender values crystallised over time” (Denzin & Lincoln, 2018, p. 168). Compatible with this ontological position is an epistemological stance of subjectivism (Denzin & Lincoln, 2018; Scotland, 2012). Subjectivism, in the case of critical theory, determines that “knowledge is both socially constructed and influenced by power relations from within society” (Scotland, 2012, p. 130). The role of the researcher and participants within the critical theory paradigm is one of a democratic partnership where the researcher and participant work together during the research process. The intent of the critical theory paradigm is “a process of inquiry that goes beyond surface illusions to uncover the real structures in the material world in order to help people change conditions and build a better world for themselves” (Neuman, 1994, p. 68). The aim of the critical theory paradigm is to gain insights into particular social phenomena and to affect societal structural change by addressing issues of marginalisation and inequity within it (Cohen et al., 2017).

The interpretive paradigm has an epistemological position that acknowledges the existence of the social world, but it is not considered a separate entity. Instead, it is considered socially constructed by people in different ways within their diverse social and cultural contexts (Day, 2024; Scotland, 2012). From an ontological perspective the interpretive paradigm assumes a position of constructivism (Bryman, 2016; Flick, 2020; Lochmiller & Lester, 2017; Savin-Baden & Howell Major, 2013). Constructivism asserts that “social phenomena and their meanings are continually being accomplished by social actors. It implies that social phenomenon are not only produced through social interaction but are in constant state of revision” (Bryman, 2016 p. 29).

The subjective positioning of the interpretive paradigm is regarded as the antithesis of the positivist worldview that has traditionally dominated the field of research (Cohen et al., 2018; Tolich &

Davidson, 2018). The interpretive paradigm contrasts with a positivist stance which seeks to *explain* human behaviour while the interpretive paradigm seeks to *understand* human behaviour (Bryman, 2016). The anti-positivist position of the interpretive paradigm is concerned with how people make sense of and interpret their social worlds within their cultural and historical contexts (Bryman, 2016; Crotty, 2020). Essentially,

the central endeavour in the context of the interpretive paradigm is to understand the subjective world of human experience. To retain the integrity of the phenomenon being investigated, efforts are made to get inside the person and to understand from within. (Cohen et al., 2018, p. 19)

This study is undertaken within an interpretive paradigm as it aligns with the key tenets of socio-cultural theory. For example, the ontological and epistemological nature of the interpretive paradigm align well with the principles of socio-cultural theory in that it accepts that reality and knowledge are socially and culturally co-constructed and that there are multiple ways of experiencing the social world.

Various research approaches relate to the interpretive paradigm and include “symbolic interaction, phenomenology, social constructionism, and hermeneutics” (Mutch, 2013, p. 65). In this study, a phenomenographic approach is undertaken to conduct the research. The place of phenomenography in relation to the interpretive paradigm is explained in the following section.

3.1.3 Phenomenography and the Interpretive research paradigm

Phenomenography is a research approach that was established by Swedish researchers Marton, Saljo, Dahlgren and Svensson in the 1970s (Bowden, 2000). Phenomenography was “designed to answer certain questions about thinking and learning “(Marton, 1986, p. 28) and in particular, understand the variations in the ways that students perceive and understand concepts while learning (Balding, 2023; Han & Ellis, 2019; Marton, 1986). The main foundation of phenomenography is “the variation in ways of experiencing a phenomena” (Marton & Booth, 1997, p. 111). Since its inception, the original focus of phenomenography has evolved and it has been used as a research approach in many educational contexts and settings (Akerlind, 2008; Bayuo et al., 2023, Stolz, 2020). Due to the nature of phenomenography, it has more recently also been viewed as an appropriate research approach in the field of nursing as it provides insights into the variations in patient experiences in healthcare systems (Balding et al., 2023; Bayuo et al., 2023; Sjostrom & Dahlgren, 2002; Whitfield et al., 2023).

Phenomenography is a qualitative research approach within the interpretive paradigm (Akerling, 2012; Balding et al., 2023; Dawadi et al., 2021; Ghalkhani & Khodarahm, 2020; Ha, 2014; Khairin & Ulfah, 2018). Many of the underlying principles of interpretivism are evident in phenomenography as it seeks to investigate human experience and assumes that there are multiple realities and experiences of a phenomenon and that these realities are socially co-constructed (Bogdan & Biklen 2007; Cohen et al., 2018; Crossman, 2017). However, phenomenography takes interpretivism in a particular direction as it focuses on the “qualitatively different ways in which people experience, conceptualise, perceive, and understand various aspects of, and phenomena in, the world around them” (Marton, 1996, p. 31). In other words, this particular version of interpretivism seeks to understand the variations in how a phenomenon is experienced and understood by people, rather than being an investigation of the phenomenon itself (Khairin & Ulfah, 2018; Whitfield et al., 2013). A phenomenographic approach to interpretivism, acknowledges that people experience and understand aspects (phenomena) of their world in different ways and it seeks to understand these variations of experience (Bruce, 1999; Hajar, 2021). Therefore, from a phenomenographic perspective, knowledge is considered a construct of the inter-relation between the experience and the person having the experience (Balding et al., 2023; Forbes, 2012; Marton & Booth, 1997). This point is further explained by Akerling (2008) who notes that:

...individuals experience the world differently because experience is always partial. At any one point in time and context, people discern and experience different aspects of any phenomenon to different degrees. Thus, different aspects of the phenomenon are discerned, and *not* discerned, in people’s awareness of it. (p. 635)

Phenomenography “takes a non-dualistic ontological perspective; meaning that object and subject are not separate and independent of each other” (Ornek, 2008, p. 5). The internal and external worlds of a person are not independent of each other but are interrelated and viewed as a whole through a person’s awareness (Bayuo, 2023; Hajar, 2012; Whitfield et al., 2023). This approach assumes a second-order perspective that “there is only one world, a really existing world, which is experienced and understood in different ways by human beings” (Marton, 2000, p. 105). Essentially, the second order perspective focuses on how a person perceives and experiences a phenomenon rather than investigating the nature of the phenomenon itself (Bayuo et al., 2023; Sjostrom & Dahlgren, 2002; Whitfield et al., 2023). The second order perspective of phenomenography contrasts and distinguishes it from phenomenology which has a first order perspective (Balding et al., 2023; Bayuo et al., 2023; Hajar 2021). The two research approaches are often confused with each other and although both focus on inquiring into human experience (Balding et al., 2023), the first-order

perspective of phenomenology looks to inquire into the phenomenon itself rather than people's experience of the phenomenon (Balding et al., 2023; Bayuo et al., 2023; Hajar, 2021).

I have chosen to use a phenomenographic approach in this study because phenomenography was developed in an educational context and is aimed at understanding questions related to educational research and contexts. Marton and Booth explain that, although neither a complete method nor a theory of experience, "phenomenography is rather a way of - an approach to - identifying, formulating, and tackling certain sorts of research questions, a specialization that is particularly aimed at questions of relevance to learning and understanding in an educational setting" (Marton & Booth, 1997, p. 111).

In the context of this research, the second order perspective of the phenomenographic approach will help gain an in-depth understanding of the variations in participants experiences of the human connection with their lecturers in an online environment. This approach contrasts with a first order perspective as it is investigating ECE student teachers' experiences of human connections rather than investigating the phenomenon of human connections. It will enable insights into the collective experiences of the ECE student teachers with the goal of improving the quality of online initial teacher education programmes (Ashworth & Lucas, 1998; Prosser, 2000).

3.1.4 Case study within Interpretative research

As the research was conducted within an interpretive paradigm in one ITE programme over time, a case study approach was adopted. Case studies can be a valuable approach for individual researchers since they can provide an opportunity for in-depth study of a particular issue in a particular instance within its natural context (Bell & Waters, 2018; Punch, 2014; Stake, 2005). The case study approach is characterised by an investigation of a setting, single subject, person, or group, or the documenting of an event (Bogdan & Biklen, 2007; Stake, 2005). Through this investigation, a case study seeks to provide a picture of the richness and depth of a situation and a construction of the reality of the participants' lived experiences within a bounded system (Cohen et al., 2018; Cresswell & Guetterman, 2021; Merriam, 1998; Stake, 2005). Bounded in the case study context means that "the case is separated out for research in terms of time, place, or some other physical boundaries" (Cresswell & Guetterman, 2021, p. 439). In my context, the case is bounded by time and context in that it was a one-year online early childhood ITE programme. A case study involves descriptions and perceptions of the relevant events, dynamics of relationships, and the thoughts and feelings of participants within a chosen bounded setting. There are numerous types of case studies which are defined by their purpose (Cohen et al., 2018). In this study, the case study as defined by Stake (2005)

has been used as the approach fits well with the intent of the research. Stake identified three basic types of case study: intrinsic, instrumental, and collective (Stake, 2005). For the purposes of this study, an instrumental case study is the most relevant case study type, because as the researcher, I want to examine a particular case “to give insight into an issue, or to refine theory” (Punch, 2014, p. 121). In this instance, I want to gain a better understanding of how ECE student teachers in a hybrid early childhood initial teacher education (ITE) programme experience human connections with their lecturers in Aotearoa /New Zealand, the place that digital technologies have in mediating such connections and how these experiences may contribute to the formation of their teacher professional identity.

3.1.5 Data generating methods: Qualitative

Case studies are usually undertaken using qualitative research approaches and instruments but can include any method of inquiry appropriate for the study (Bell & Waters, 2018). In this study, a qualitative methodology has been adopted because this method seeks to explore the experiences and perceptions of participants. A qualitative methodology acknowledges and emphasises the importance of participants’ voices, perspectives, and experiences in cultural and social contexts which aligns with the socio-cultural positioning of the research (Cresswell & Guetterman, 2021). Consequently, a selection of qualitative research instruments were used “to capture how those being interviewed view their world, to learn their terminology and judgements, and to capture the complexities of their perceptions and experiences” (Patton, 2015, p. 348). The interview instruments used in this study to gather data were semi-structured interviews, focus groups, and asynchronous online discussion forums. Each instrument has its own specific characteristics regarding the qualities of data collected. Using a range of tools captured the voices and experiences of the participant voices. The nature of each instrument, including its particular purpose and point of difference in collecting data will now be detailed (Cresswell & Guetterman, 2021).

3.1.5.1 Interviews

Qualitative research predominantly uses various forms of interviews as data gathering tools as they are an effective method of gaining insight into participants’ perceptions and experiences (Bryman, 2016; Punch & Oancea, 2014). As Cohen et al. (2018) state:

Interviews enable participants - interviewers and interviewees - to discuss their interpretations of the world in which they live, and to express how they regard situations from their own point of view. In this sense the interview is not simply concerned with collecting data about life: it is life itself; its human embeddedness is inescapable. (p. 506)

There are several forms of interview approaches that include structured, unstructured, semi-structured and focus groups (Lochmiller & Lester, 2017; Russmann, 2022). Mutch (2013) clarifies each approach as follows:

Structured interviews follow a questionnaire format or a set of prescribed questions

Semi-structured interviews have a set of key questions that are followed in a more more-open ended manner

Unstructured interviews begin with a single open-ended question or a broad theme, and the respondent plays a bigger part in determining the direction. (p. 119)

In choosing an interview approach it is important that the researcher is clear about the aim of the research project so that an appropriate interview approach or approaches are chosen to align with the research intent and research design (Lochmiller & Lester, 2017).

Although the use of interviews as a data gathering tool can elicit more in depth and personal answers than other tools such as questionnaires, there are some weaknesses in their use (Lochmiller & Lester, 2017). From a practical perspective, it can be challenging to arrange the interviews and time consuming to undertake them (Bell & Waters, 2018). Other key concerns from a philosophical perspective include that, due to the qualitative nature of interviews, they cannot be free of the social and cultural bias of both the interviewee and interviewer as they make sense of their social worlds. Therefore, data generated during interviews is subjective in nature and filtered through the lens of the researcher. It can also be that interviewees are unintentionally deceptive when answering questions to either provide a response that they feel the interviewer wants to hear or to avoid answering questions that they feel are too intrusive (Bell & Waters, 2018; Cohen et al., 2018; Cresswell & Guetterman, 2021; Lochmiller & Lester, 2017). To mitigate these factors, as the researcher I was vigilant about these concerns and was reflexive when undertaking the interviews. Expand through research. My position as a researcher is elaborated on later in this chapter.

The use of interviews to gather data also aligns with the phenomenographic approach which is concerned with capturing the experiences of people (Cossham, 2017; Han & Ellis, 2019; Walsh, 2000). For these reasons, two of the tools chosen to gather data in this study were principally forms of interviews that captured the voices of the ECE student teacher participants. The interview tools used in this study were semi-structured interviews and focus groups,

Semi-structured interviews

Semi-structured interviews are primarily used in social research and are a key method for collecting rich data (Punch & Oancea, 2014). These interviews are conducted on a one-to-one basis between

researcher and participant within a given time limit (Bryman, 2016; Mutch, 2013). Semi-structured interviews tend to follow a set list of general, and emerging questions, which provide a consistent framework but allow space for participants to express their views in words or pictures (Bryman, 2016; Lochmiller & Lester, 2017). The style of questioning in semi-structured interviews enables the researcher to gain an in-depth understanding of the research topic from the participant's perspective (Mutch, 2013). This is because the researcher asks open questions and is able to "probe in-depth responses about people's experiences, perceptions, opinions, feelings and knowledge" (Patton, 2015, p. 86). The nature and flexibility of semi-structured interviews enable the interview to be conducted in a more conversational style than in structured interviews, and this conversational style opens opportunities for the researcher to probe answers and for unexpected understandings to be shared (Lochmiller & Lester, 2017).

I chose to use semi-structured interviews in this study as one tool for gathering data. The reasons for this choice were two-fold. Firstly, the pre-established initial questions provided a consistent framework for data collection from the participants. Secondly, the flexibility of semi-structured interviews opened opportunities for an in-depth conversation about the study topic where the ECE student teacher participants could express themselves verbally (Patton, 2015). The conversation was further enhanced by the use of open-ended questions as they provided space for the ECE student teacher participants to share their perspectives and for myself as a researcher to further probe their answers.

Focus groups

Focus groups are qualitative in nature as they are concerned with collecting information about peoples' experiences and perceptions. The intent of focus groups is "that participants will interact with each other, will be willing to listen to all views, perhaps to reach consensus about some aspects of the topic or to disagree about others (Bell & Waters, 2018, p. 308). They are often structured with open pre-determined questions that provide flexibility for the researcher to probe answers given by the participants (Mutch, 2013). A key difference between individual semi-structured interviews and focus groups is that participants in a focus groups tend to number between seven and 10, instead of being in individual interviews with the researcher (Mutch, 2013). Interviewing in a focus group setting enables the researcher to examine and gain insight into the perceptions and experiences of a phenomenon shared by a particular cohort (Denzin & Lincoln, 2003; Edwards & Holland, 2012). This is because interviewing in a group provides an opportunity for peer-to-peer interaction where knowledge and views are co-constructed by the group to develop a shared understanding (Cresswell & Guetterman, 2021; Edwards & Holland, 2012; Patton, 2015). The role of the researcher while

undertaking focus groups is considered one of a facilitator rather than that of an interviewer (Bell & Waters, 2018).

I chose focus groups as another tool for gathering data as the collective perspective concerning the research topic complemented the individual views gathered in the semi-structured interview. As in the semi-structured interviews, a set of pre-determined open-ended questions was used to provide a consistent framework but provide opportunity for in-depth conversation. The peer-to-peer interaction provided a space for the ECE student teacher participants to share their perspectives in a group and to co-construct general consensus through their dialogue.

3.1.5.2 Asynchronous online discussion

Asynchronous online discussion (AOD) has become a core element of many online educational programmes (Marra, 2006; De Wever et al., 2006; Zhong & Norto, 2018). AOD tends to be text-based and provide opportunities for students and lecturers to interact with each other in a forum space mediated by the Internet over a period of time (Zhong & Norton, 2018). The intention of AOD is to provide a space “to promote critical thinking, meaningful problem solving, and knowledge construction” (Marra, 2006, p. 243). For the researcher, AOD forums provide transcripts of participant interaction in a natural setting that can provide rich information (De Wever, et al., 2006).

In this study, I chose to include the ECE student teacher s’ AOD contributions as a tool to gather data because the method provided different insights into the research focus by contrasting with and complementing other tools used. For example, the data gathered consisted of interactions in the AOD which did not reply to pre-determined questions about the research topic.

3.1.6 My position as the researcher

As a qualitative researcher, I am inextricably part of the social world that I am researching (Cohen et al., 2018). As Cohen et al. (2018) explain, qualitative “researchers are in the world and of the world that they research” (p. 302).

In the case of this research study, I am further connected and involved as I am positioned with an insider perspective as the research was undertaken at my place of work, my place of study, and in a programme that I co-developed, led and taught. As such, as the researcher, I have a strength in that I have a deep understanding of the context of the research but a weakness in that I am not objective (Punch & Oancea, 2014). Correspondingly, I acknowledge that the research space is not one of neutrality and that I bring my own subjectivities to the inquiry such as “personal characteristics, experiences knowledge, backgrounds, values, beliefs, theories, age, gender, sexuality, politics, theories, race, conceptual frameworks and prejudices to the research” (Cohen et al., 2018, p. 302).

However, as qualitative research considers that “researcher subjectivity is a resource... rather than a potential threat to knowledge production”(Braun & Clark, 2019, p. 32), I have employed a strategy of reflexivity to acknowledge and understand my position and influence within my research study (Braun & Clarke, 2019; Cohen et al., 2018; Cresswell & Guetterman, 2021). Researcher

reflexivity is a set of continuous, collaborative, and multifaceted practices through which researchers self-consciously critique, appraise and evaluate how their subjectivity and context influence the research processes (Olmos-Vega et al., 2022, p. 242).

Consequently, by being reflexive throughout the research process, I have purposefully reflected on how my own experiences, biases, values and assumptions may have influenced the whole process of this study. For example, my underpinning sociocultural values and beliefs about teaching learning have determined my choice of methodology and methods.

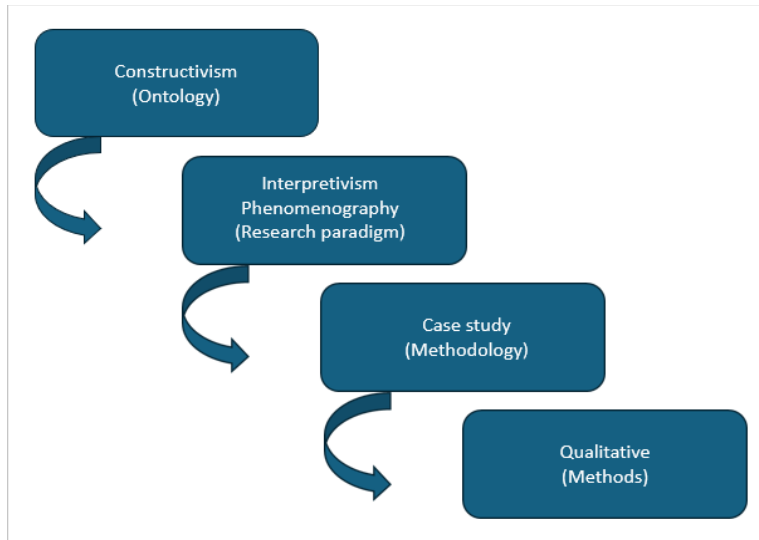
I appreciate that as a programme leader and lecturer of the ECE student teacher participants that I need to be mindful of how the participants positioned me in relation to perceived power and status. In order, to eliminate one aspect of the power dynamic between myself and the ECE student teacher participants I will not assess their work or undertake their teaching practice assessment evaluative visits. Notions of hierarchy between myself and the ECE student teacher participants may have influenced the ways in which the ECE student teachers responded to questions. For example, the ECE student teacher participants may not have answered questions honestly as they might not have wanted to offend me or feel like they are in a vulnerable position if their comments were not positive. By being reflexive, I believe that I mitigated such feelings by reminding ECE student teacher participants through all our interviews that I recognised that their responses were not about me personally, but about their experiences in the programme. I was also mindful during the interview process that when ECE student teacher participants did share a view about the programme or aspects of online learning that challenged my own perspective, I consciously and deliberately did not become defensive or try to justify the situation from my viewpoint. I also believe that through the development of relationships within a community of learners with the ECE student teachers, constraints due to notions of hierarchy were mitigated.

3.1.7 Summary

The first part of this chapter has presented and justified the theoretical framework that was chosen as appropriate for the aim and intent of this study. The theoretical framework has detailed the research paradigm consisting of the ontological, epistemological, methodological and methods for this study. The theoretical framework is presented in Figure 4 below which shows that this study is

underpinned by a constructivist ontology and an interpretive epistemology while adopting a phenomenographic approach. The diagram also shows that the research employs a case study methodology, and qualitative methods were used to gather data.

Figure 1 Theoretical framework



3.2 Research process

The next section of this chapter describes the research process. This includes detailing the research context, selection of participants, ethical considerations, data gathering and analysis and how the trustworthiness and credibility of the research was maintained. Each aspect of the research process will now be presented in order.

3.2.1 Research context

In 1997, The University of Waikato, in line with its key objectives of implementing online learning at the university, introduced its first online programme within the Division of Education (formerly School of Education) (Khoo, 2011). The programme provided primary teacher education and was called the Mixed Media Presentation programme (MMP) as it combined face-to-face teaching blocks with online components (Dewstow, 2006; Gedera, 2014). The Learning Management System (LMS) used by the University to host the online components of the programme was a software called WebCrossing referred to as Classforum (Johnson & Walker, 2007). The development of Classforum was significant as it was a pedagogical model that enabled students to not only access online information but to also participate in synchronous and asynchronous discussions. The interactive online learning element of Classforum was underpinned by a socio-cultural understanding of learning and teaching (Ako Aotearoa, 2002; Campbell & Yates, 2005; Johnson & Walker, 2007). The MMP

programme provided the foundation for the establishment of many online programmes across the University (Khoo, 2010).

As online learning became more popular at the University of Waikato, and in line with its identification of online learning as one of its strategic directions for development, (Dewstow, 2006; Johnson & Walker, 2007) the university established the Waikato Innovation Centre for Electronic Education (WICeD) in January 2001 (Khoo, 2010). The role of WICeD was to support and advance quality online teaching and learning at the University of Waikato (Khoo, 2010). One of the advancements was the introduction of Moodle in 2008 to replace Classforum as the primary online learning management system at the University of Waikato (Manuirirangi, 2018). The introduction of Moodle coincided with WICeD being replaced by the Waikato Centre for eLearning (WCEL). The goal of WCEL was to support university staff in effective online teaching (Gedera, 2014). It was within this context that the Graduate Diploma of Teaching-Early childhood was first offered as a programme.

3.2.1.1 The Graduate Diploma of Teaching (GradDipT-ECE)

In 2008, the Graduate Diploma of Teaching Early Childhood (GradDipT) ECE was offered for the first time at the University of Waikato in Hamilton, New Zealand. The Grad Dip ECE was a fully online programme with all courses facilitated through the university's online learning management system, Moodle. In its development, the GradDipT-ECE was able to draw from the existing undergraduate Bachelor of Teaching ECE for its conceptual framework alongside a rich foundation of eLearning practice and support provided by the MMP and WCEL.

At the time of this study, the GradDipT-ECE was a one-year programme that commenced in early January and finished in late December. The programme could be undertaken as a part-time option, but the majority of ECE student teachers chose to complete in one year. The prerequisite for enrolment in the programme was an undergraduate degree in any discipline at Level 7 or, if obtained overseas, its equivalent. There was also a requirement that potential ECE student teachers who had English as an additional language have an IELTS score of 7.5 in each band or an equivalent.

The ECE student teacher intake in the first year of the programme (2008) was 38 students, and subsequently the programme was capped at 100 ECE student teachers. The programme was originally fully online but when the Teaching Council of Aotearoa New Zealand requirements changed to include face-to-face blocks, the structure of the programme changed to reflect these requirements. During the year when data was collected for this study, ECE student teachers were required to attend a three-day face-to-face block at the beginning of the programme which included orientation and an additional five-day face-to-face block which occurred in the last week of the first semester. During their study period, ECE student teachers were required to undertake nine

compulsory papers (courses) which were taught online and 14 weeks of practical experience in early childhood education and care services. The ECE student teachers were expected to study for approximately 35 hours per week to be divided between activities such as asynchronous online discussions, research and assessment tasks.

3.2.2 The selection of participants

During the GradDipT ECE orientation on-campus block at the beginning of the academic year, ECE student teachers were invited to participate in this research. The ECE student teachers were given a participant information sheet that included a space to add their name, report on their perceptions of online relationships and a tick box to indicate if they were interested in participating in the research (see Appendix B). Each ECE student teacher completed a participant information sheet, and all forms were collected at the end of the day.

The intention was that ten ECE student teachers would be invited to participate in the research. If more than ten ECE student teachers had accepted the invitation to participate, then participation would have been decided through a purposeful selection based on self-reported experiences and perceptions of online professional relationships to ensure a range of experiences and perceptions would be reflected within the final sample.

The participation sheets were returned and examined, revealing that 10 ECE student teachers indicated that they would like to participate in the research. This number negated the need for purposeful selection. The 10 ECE student teachers were then given an informed consent form (see Appendix C) which they signed and returned before any data were collected. As the programme progressed, and before any data collection, the number of participants was reduced to nine. The 10th person did not reply to messages regarding the research and was having challenges completing her study. Consequently, it was considered ethical not to pursue the 10th person to participate in the research so that they could focus on their study.

3.2.3 Ethical considerations

In any research project there are ethical issues that need to be addressed. Consequently, it is imperative that the researcher is aware of any potential issues and acts in a manner to negate them (Mutch, 2013). In order to do so, researchers follow a set of ethical codes to guide their decision making and actions throughout the entire research process (Punch & Oancea, 2014). Research ethics “involves practitioner-scholars acting in a responsible and fair way, while continually keeping in mind

the interest, needs, and protection of current and/or future research participants” (Lochmiller & Lester, 207, p. 68).

Therefore, as a researcher I have a professional responsibility not only to investigate my area of interest and contribute to the research community but also to consider the rights, wellbeing and dignity of participants in my study (Bryman, 2016; Cohen et al., 2018). Ethical standards in research recognise that participants have rights and subsequently guide practice by stating that “individuals need to know the purpose and aims of the study, the use of the results, and the likely social consequences the study will have on their lives” (Cresswell & Guetterman, 2021, p. 152). This is deemed ethical practice. Diener and Crandall (1978) state that there are four main areas of ethical practice which are relevant to social and behavioural research in the treatment of research participants. The four main areas are “potential harm, informed consent, privacy and deception (Diener & Crandall, 1978, p. 7). Each of these ethical practices is now explained and discussed in relation to my study.

3.2.3.1 Potential Harm to participants

Researchers have an ethical responsibility to undertake research projects without causing harm to the participants. In the context of research, harm can include physical harm, mental harm such as stress and loss of self-esteem, loss of interpersonal trust and developmental harm (Diener & Crandall, 1978; Bryman, 2016). Throughout the research project, I was conscious of the potential to cause harm to the research participants and sought to undertake the research project in a manner that would not cause harm.

I made a number of decisions to help protect participants from harm. For example, it was recognised that potential harm to the participants might occur because of a conflict of interest, as participants were invited and selected from a programme that I coordinated and taught. To address this concern, I was transparent about my role in the research. I reassured students that their choice of participation or non-participation in the study would not influence their relationship with myself or be detrimental to their participation in the programme. To further counter any harm due to a potential conflict of interest, I did not mark assignment submissions or undertake evaluative practicum visits of the participants. However, if study participants had any concerns, they were advised they could contact the Associate Director of Early Childhood who was acting as a ‘critical friend.’ They could also get in touch with my supervisors with any concerns. It is also acknowledged that participants whom I have taught may feel that they should make agreeable comments because they did not want to offend me. In the covering letter, I reassured them on this matter by stating that the study was about their perceptions of the human aspects of online professional relationships in

the programme and not a personal judgement of myself. I also emphasised that for the validity of the study and that it would be helpful if they were completely honest.

3.2.3.2 Informed consent

Informed consent is concerned with protecting participants' rights and autonomy in any research project. Gaining informed consent from participants prior to the start of any research ensures that participants are fully informed about the research, their part in the research and consequently can make an informed choice on whether or not they would like to take part in it (Bryman, 2016; Cohen, et al., 2018; Cresswell, 2017). Core factors of informed consent are defined as "competence, voluntarism, full information and comprehension" (Cohen et al., 2018, p. 325). In this study the core components of informed consent were attended to before any data collection took place. Potential participants were deemed competent and able to comprehend the research project as they were adult learners with prior undergraduate degrees enrolled in a Graduate Diploma teacher education programme. During orientation (outside of timetabled programme time), I provided full information about the study by verbally providing an overview of the topic and then handing out a participant information sheet (see Appendix B). This outlined the purpose and intent of the research, the proposed use of research results and clearly indicated the role of participants. To ensure that potential participants were voluntarily recruited I did not coerce them into the study and assured them that their participation was voluntary.

Participants were also advised that they could decline to answer questions and had the right to withdraw from the study without any explanation at any time up until they had approved the transcripts from the interviews. It was also clearly indicated to participants that they could not withdraw or review any data collected in the focus group.

3.2.3.3. Privacy

The right to privacy is considered an ethical issue, particularly in qualitative research, as the very nature of the research can invade personal privacy (Bryman, 2016; Cohen et al., 2018). Privacy is closely linked to informed consent and anonymity (Bryman, 2016; Cohen et al., 2018). For example, when a participant provides informed consent to be part of a research project, they understand that they will potentially be asked to divulge private, personal information that they would not ordinarily share. Anonymity can help address and mitigate these invasions of privacy by not revealing the participant's identity (Cohen et al., 2018).

In this study, although anonymity could not be guaranteed due to the qualitative nature of the research and the need for participants to share their lived experiences, processes were implemented to try to achieve anonymity. The risk of identifying participants was minimised by ensuring that

names and personal details were not disclosed at the point of reporting. The way the findings were reported further safeguarded the anonymity of the participants (for example, through the use of pseudonyms). Similarly, every effort was made to ensure confidentiality by asking participants not to share data from the focus group.

Additionally, participants were able to keep informed of the work and results by contacting myself via email. Participants were sent transcribed records of the two interviews for perusal and review. Participants will be able to access the PhD online through The University of Waikato's research commons thesis depository and, upon request, they will also be provided with copies of any articles or reports written as a result of the research.

3.2.3.4 Deception

Deception occurs when a researcher “represents their work as something other than it is” (Bryman, 2016, p. 133). Deception may include not being honest about the research intent, withholding information about the research design, and not telling people that they are research participants (Diener & Crandall, 1978; Bryman, 2016; Cohen et al., 2018; Cresswell and Guetterman, 2021). In some cases, deception is knowingly applied and justified by the researcher if they feel it is the only way to inquire into a topic and can ensure that no harm comes to the research participants (Cohen et al., 2018). For example, Diener and Crandall (1978) describe a common practice of deception in research is the ‘simulated emergency requiring the intervention of a passerby. Thefts, medical emergencies, and searching for “lost” contact lenses have been faked by confederates, enabling scientists to measure people’s reactions” (p. 73).

In the case of my research at no time was any deception intended or knowingly applied, as the research topic did not warrant or justify any act of deception.

3.2.4 Data gathering

The next section outlines the data gathering process that was undertaken in this study. As previously detailed, a qualitative approach was conducted to gather the data as I felt that this was the most appropriate way to capture the lived experiences of the ECE student teacher participants.

The data gathering was undertaken in three phases. The first phase consisted of undertaking two semi-structured interviews. The second phase consisted of focus groups interviews. The final phase involved accessing the ECE student teacher participants’ AOD contributions. The process I undertook is documented in the next sections.

3.2.3.1 Semi-structured interviews

Data were collected in two semi-structured interviews with the nine participants, at the beginning and end of the GradDip T- ECE one year programme.

The semi-structured interviews were intended to range between 45 and 90 minutes in duration (see appendix D). For both sets of interviews, the ECE student teachers were given the choice of a virtual or face-to-face interview. The virtual interviews were conducted via Skype and the face-to-face interviews in a private office on the university campus. Six of the participants chose to be interviewed via Skype and three chose a face-to-face interview. As there was more flexibility of dates and time for the virtual interviews, I asked the ECE student teacher participants for a day and time that would suit them to be interviewed. Once I had the information, I sent a Skype invitation to the interviewees. Due to the location of the face-to-face interviews, there were some constraints as to when I would be available on campus to undertake the interviews, so I sent a list of dates and times for the ECE student teacher participants to choose from. Once the ECE student teacher participants had chosen a date and time, I confirmed the details with an email. Whether the interviews were conducted virtually or face-to-face, I ensured that the space that I was in was private and that the ECE student teacher participants felt at ease by chatting a little with them before the interview started. The semi-structured interview questions were specific to the research focus and open ended which allowed participants to express their views in words or pictures (Bryman, 2016; Cresswell & Guetterman, 2020; Flick, 2020) (see Appendix 5). Due to the nature of the semi-structured interviews, there were opportunities for flexibility on my part to be led by the ECE student teacher participants as they engaged with the questions (Bryman, 2016; Punch, 2014). I was also able to probe answers and ask for clarification which provided opportunities for the ECE student teacher participants to share their perspectives and understanding of the topic comprehensively.

The semi-structured interviews were recorded on a mobile phone and subsequently transcribed, and the original interviews deleted from the phone and stored on a password-protected computer. Once the semi-structured interviews were transcribed, the transcripts were sent to the ECE student teachers to check that they were happy with the accuracy of the content. The ECE student teachers were invited to make any changes or add to the transcripts. Only one of the ECE student teacher participants added additional information to their second interview transcript and that information was included for analysis.

A challenge that I experienced during the interviews was when the participants veered away from the research topic to ask me questions about the programme in my capacity as programme leader. These questions included clarification about marking criteria and programme processes. In particular,

during the second semi-structured interviews, the participants had questions about the restructuring of the Division of Education and two of the teaching team who were made redundant during the data collection cycle. The participants expressed a range of emotions from anger to concern, and it seemed ethical practice to take the time to reply and discuss the changes even though it extended the time of the second interviews.

3.2.3.2 Focus Groups

Data were also collected via two focus groups with available participants at the end of the programme. Each focus group lasted for a maximum of sixty minutes and was conducted via Skype (see Appendix E). At the end of the programme's year, I emailed an invitation to all the participants to participate in the focus groups with potential dates and times. I received answers from five of the ECE student teacher participants and sorted them into two groups depending on availability. Focus group one had three ECE student teacher participants and focus group two had two ECE student teacher participants. I facilitated each of the focus groups and initiated discussion with pre-prepared open questions. As the discussion ensued, I probed and asked for clarification. The focus groups complemented the semi-structured interviews as they opened opportunities for peer-to-peer interaction which enabled co-construction and affirmation of the ideas amongst the group. However, there were some technological challenges in facilitating focus group one. Several of the ECE student teacher participants experienced connectivity problems which meant a delay in starting the focus group which resulted in the time being extended for the session. One of the ECE student teacher participant's microphone and camera were not working, so although they could hear the conversation, they could not make oral contributions. This issue was addressed by asking the student ECE teacher participant to type their comments in the chat feature of Skype.

3.2.3.3 Asynchronous Online Discussion (AOD)

At the end of the year, data was collected from the ECE student teacher participants' contributions in AODs that they had participated in during their year of study. The AODs were a compulsory component of each of the ECE student teacher's courses and were guided by a weekly topic. Following the marking criteria of the AODs, the ECE student teacher participants were required to share personal experiences to demonstrate their understanding of the topic. The data sought to identify examples of human connections between ECE student teacher participants and their lecturers in the online learning environment and add further context to points the ECE student teacher participants made in interviews and focus group discussions.

3.2.5 Analysing the data

Data analysis not only requires the necessary skills of the researcher to observe, listen, critically reflect, and interpret the data, but also requires an appropriate analysis approach (Atkinson & Hamilton, 2009). In this research project, the generated data were analysed using an approach that is theoretically grounded in phenomenographic epistemology (Braun & Clarke, 2021). The key premise of such analysis is that it "...focusses on the relationship between the interviewee and the phenomenon as the transcript reveals it" (Walsh, 2000, p. 20). This form of analysis differs from other qualitative data analysis that has a first-order perspective that "focuses on explicating the general and invariant essence of a phenomenon *through* people" (Han & Ellis, 2019). Instead, a phenomenographic analysis approach is from a second-order perspective which "suggests that the researcher directs themselves towards peoples understanding of the world and makes statements about their experiences, in essence the second-order perspective describes the world as it is understood rather than as it is " (Balding et al., 2023, p. 4). Consequently, following the phenomenographic approach, the data were analysed to build knowledge about the different ways that the ECE student teacher participants experienced the identified phenomenon of human connections with their lecturers in the online learning environment (Booth, 2006; Braun & Clarke, 2021).

Phenomenographic data analysis focuses on capturing people's varying conceptions of an experience and these conceptions are grouped to form categories of description (Balding et al., 2023; Whitfield et al., 2023). The intent of developing categories of description is to reveal a collective understanding of a phenomenon including the similarities and differences in the way it can be experienced (Balding, et al., 2023; Cosshan, 2017; Hajar, 2021). However, phenomenographic analysis can be deemed quite narrow in presenting findings through categories of description which present a collective understanding rather than an individual perspective (Cossham, 2017). This is because phenomenographic analysis recognises that people have variable ways of experiencing a phenomenon, it asserts that

phenomenography does not say that there are variable realities, or that there are multiple and endless ways of experience in the world. Rather, it says that people have variable ways of experiencing and conceptualising reality, but that that there are a limited number of ways and that these ways are interrelated. (Cossham, 2017, p. 24)

In other words, phenomenographic analysis determines that people have variable ways of experiencing a phenomenon , however, that there are only a number of ways and that these ways are connected. For these reasons, in this study although I maintain a second-order perspective, the

data were analysed using reflexive thematic analysis rather than phenomenographic analysis as it can be broader and less prescribed in capturing the individual voices of the ECE student teacher participants (Braun & Clark, 2013, 2021). Reflexive thematic analysis was deemed appropriate for my study because it does not have one particular theoretical orientation and can subsequently be applied across a range of theoretical frameworks including, as in the case of this study, a qualitative phenomenographic approach (Braun & Clarke, 2006, 2013, 2021). In addition, the theoretical positioning of thematic analysis and phenomenographic analysis share several characteristics: they both sit within an interpretive, qualitative paradigm; they are non-dualistic; both maintain a second-order perspective as they describe the phenomenon as understood and experienced by the participants; they seek to understand participants' experiences and capture their voices; they include variance of experiences by identifying similarities and differences; they use same instruments to generate data; and both employ a data analysis process that is iterative and inductive.

A further data analysis approach that aligns with phenomenographic and reflexive thematic data analysis is the use of participant portraits. Participant portraits “capture the richness, complexity, and dimensionality of human experience in social and cultural contexts, conveying the perspectives of people who are negotiating those experiences” (Hill, 2005, p. 960). In writing a portrait, the researcher aims to gather from collected data such as interviews and focus groups, a brief overview of the participant’s history, context and experiences relevant to the research topic. The overview enables the researcher to create individual profiles which provides insights into the lived experiences of each participant and positions them as individual human beings in the study (Earl Rinehart, 2019; Neil, 2021). In my study the participant portraits were developed from the semi-structured interviews and AOD. Drawing from these two sources of data enabled accurate representations of each of the ECE student teachers to be developed using their voice and experiences. For example, the semi-structured interviews consisted of a range of questions that asked about prior experiences of a sense of connectedness with teachers/lecturers (see appendix D). The contributions made by the ECE student teachers in the programme’s AOD provided further opportunity for augmenting their ideas and perspectives on the research topic from the data collected in the semi-structured interviews. This study included the use of participant portraits as an analysis tool as they provided insights into the identity of each ECE student teacher prior to their starting the Graduate Diploma of Teaching early childhood (GradDipT ECE). In particular, the participant portraits offer insights into the ECE student teachers’ lived experiences and prior attitudes towards teacher student relationships. Participant portraits informed understanding of how prior experiences of the ECE student teachers influenced their perceptions of human connections with their lecturers during their study.

In this study the building of knowledge was achieved by identifying, exploring and describing themes that were generated from the data in relation to the research questions (Mutch, 2013; Walsh, 2000). This style of data analysis was inductive in nature where coding and theme development were determined by the generated data rather than a deductive approach where analysis is determined by existing theories (Braun & Clarke, 2006, 2021). The intent of such a style of analysis is to determine “the different ways in which a phenomenon is experienced, conceptualised, or understood, based on an analysis of accounts of experiences as they are formed in descriptions” (Hasselgren & Beach, 2006, p. 192).

In order to analyse the data, I followed the six phases of reflexive thematic analysis as detailed by Braun & Clarke (2006, 2013, 2021)

Phase 1: Familiarising myself with the data set (Braun & Clarke, 2006, 2021)

So that I could immerse myself in the data sets and become deeply familiar with the content I engaged with the raw data in several ways. Firstly, I transcribed each of the recorded semi-structured interviews and focus groups. Although this enabled an initial post interview engagement with the data, I found that I did not fully engage with the data content as I was distracted by the need to type as I listened. Consequently, I had a very superficial, disjointed understanding of the data content. Subsequently, to remedy my lack of engagement with the data, I listened to the recording of the semi-structured interviews and focus groups without taking notes to ensure I could really listen to what was being said and hone in on participant meanings. I then read the hardcopies of the initial transcripts while taking brief notes of any ideas or insights that stood out for me. As a strategy to support my own ways of thinking, I left a period of time before re-reading the transcripts to provide space for me as a researcher to reflect and mull over the data sets. Over the course of the research study, I revisited this process several times to ensure that I remained engaged with the data and alert to ECE student teacher participants voices throughout the data analysis. Once the initial themes had been established, aware of how I think and process information, I found that listening to the recordings of the semi-structured interviews and focus groups in a different, relaxed setting was a very valuable way for me to delve deeper into the data sets and further identify nuances and insights in the data.

Phase 2: Coding (Braun & Clarke, 2006, 2021)

Once I had become very familiar with the data sets I started to code. Coding is the process of looking for segments of the data set that seem relevant and meaningful in response to the research question of the study (Braun & Clarke, 2006, 2021; Mutch, 2013). To do this I read line-by-line the hardcopies

of the semi-structured interviews and focus groups, highlighting key phrases that captured singular concepts related to my research. I then labelled the codes at semantic and latent levels (Braun & Clarke, 2006, 2021). For example, coding deemed to be at a semantic level included codes such as humour, approachable, friendly and timely feedback. Latent coding included terms such as discursive power relations and membership of a community of learners.

Once I had completed this process, I then reviewed the codes I had identified to see if any needed to be changed or removed. Once I was satisfied with the coding process, I looked at the codes to identify any similarities or differences that could depict any emerging themes. I then uploaded the transcripts to NVivo (software programme to help sort and organise data) and entered the themes that I had categorised from the hard copy transcripts. Using NVivo, I revisited the transcripts to check the correlation of the codes with the themes that had been generated from the data. This enabled me to view the data from a different perspective and recode data I had previously overlooked, or from my interpretation of the data, miscoded into different themes.

Phase 3-5: Generating initial themes, developing and reviewing themes and refining, defining and naming themes (Braun & Clarke, 2006, 2021).

Once I was satisfied with the coding process, I looked at the codes and started to cluster codes together that might depict a particular concept which addressed the research questions. For each cluster of codes, I generated an initial theme.

In order, to develop and review my themes I uploaded the hard copy transcripts to NVivo (software programme to help sort and organise data) and entered the themes that I had categorised from the hard copy transcripts. Using NVivo, I revisited the transcripts to check the correlation of the codes with the themes that had been generated from the data. At this stage I also drew from the participant portraits to further develop, analyse and review themes. This enabled me to view the data from a different perspective and recode data I had previously overlooked, or from my interpretation of the data, miscoded into different themes

During the revision of the themes, and in consultation with my supervisors, I collapsed some themes together, reorganised and removed some altogether to ensure the generated themes reflected the central concept of the research focus.

I finally refined and named the themes ensuring that the name of each theme reflected its core content and related to the research questions. This process involved the renaming or tweaking of the name of each theme to ensure that they captured the story of the research.

Phase 6: Writing up (Braun & Clarke, 2006, 2021)

Once the themes were generated the findings were written up using direct quotes from the ECE student teacher participants to ensure that their voices were captured and accurately represented

3.2.6 Maintaining credibility and trustworthiness

In any research project it is important that the researcher show that the research design and processes can be trusted and as a consequence the research findings are accurate (Cresswell & Guetterman, 2021). In my study I have used triangulation to ensure credibility and provided clear documentation to maintain trustworthiness. Each aspect in relation to my study is now presented.

3.2.6.1. Credibility of data

The credibility of data means that as the researcher “you have used some way of ensuring that your findings resonate with those in, or who are familiar with, the case or setting” (Mutch, 2013, p. 110). The credibility of a research study can be demonstrated by using the concept of triangulation (Mutch, 2013). In research contexts the term triangulation has been adopted and adapted to mean the verification of data using multiple data points that attest to the credibility of the research findings (Lochmiller & Lester, 2017). There are four methods of triangulation. These methods are participant triangulation, researcher triangulation, data triangulation, and theory triangulation (Denzin, 1979). Participant triangulation occurs when a pattern or theme is identified by multiple participants. Researcher triangulation refers to multiple researchers collaborating to identify and discuss themes or patterns that are generated through the analysis of data. When the researcher’s perspective agrees on particular themes this adds to the credibility of the research findings. Data triangulation, which is frequently used in qualitative research, is the process of using a variety of tools to gather data. The different affordances of the tools gather different perspectives of the participants and when matching themes or patterns are identified this adds credence to the research (Bryman, 2016; Martin & Tolich, 2018; Cresswell, 2017). Theory triangulation refers to researchers applying a variety of theories to their data set to gain a better understanding which can help substantiate their findings (Lochmiller & Lester, 2017; Mutch, 2013).

In this study I used researcher triangulation and data triangulation to add credibility to my study. Researcher triangulation as a means establishing the credibility of data could appear to conflict with the underpinning philosophy of reflexive thematic analysis, where the subjectivity of the researcher is foregrounded, and as consequence can neither be right nor wrong (Braun & Clarke, 2021). However, this perceived contradiction can be addressed in the way that researcher triangulation is

undertaken. For example, the concept of researcher triangulation can align with the philosophy of reflexive thematic analysis when it is “used as an opportunity to reflect on how you have coded the data, the assumptions you’re making in coding the data, and things you might have overlooked” (Braun & Clarke, 2021, p. 233). In this study, researcher triangulation was undertaken in such a manner by my asking two experienced researchers who were familiar with the research topic and context to analyse a cross section of the data. Initially, we individually analysed the data identifying themes and patterns relevant to answering the research question. In accordance with Braun and Clarke’s (2021) definition of researcher triangulation, we acknowledged that our interpretations were neither right or wrong. However, as a group we then reflected on and discussed the themes we had identified and shared the assumptions we had made in developing them. For some themes there was a clear consensus on our individual interpretations. However, for other themes we discussed and negotiated their place in the findings. This was also an opportunity for me to include themes that I had previously overlooked through sharing and reflecting with fellow researchers assumptions I had made during the data analysis.

In the case of data triangulation, I used three methods of data collection (semi-structured interviews, focus groups and AODs) to gain insights into the ECE student teachers’ experiences from a range of perspectives. The different research tools were used to support the credibility of the findings by helping me to fix my position from perspectives collected from the three sets of data.

3.2.6.2 Trustworthiness

Trustworthiness refers “to the degree to which your data collection, analysis, and presentation of findings are presented in a thorough and verifiable manner” (Lochmiller & Lester, 2017, p. 296). To demonstrate the trustworthiness of a research study, the researcher is required to clearly detail the research design, document research decisions and make it evident that an ethical approach has been taken (Mutch, 2013).

In this study, I have addressed the concept of trustworthiness by clearly documenting the research design and research decisions. This information was available to ECE student teacher participants during the study and was written in the completed thesis. To demonstrate that an ethical approach was adopted, the research was undertaken in accordance with the University of Waikato’s ethical guideline procedures and policies. Part of the ethics procedures was the submission of an ethics application to the University of Waikato’s ethics committee. The study received ethics approval before commencement, and I adhered to the ethical practices I had detailed in the ethics application throughout the research project. For example, I followed the processes outlined in my ethics application to minimise harm to the ECE student teacher participants, ensure that the ECE student

teacher participants were fully informed before consenting to participate in the study, minimise the risk of invasion of privacy and avoid any acts of deception on my part as the researcher. To further ensure an ethical approach was taken, I was guided and mentored by two experienced senior researchers throughout the process.

3.3 Summary

This chapter detailed the research design of this study. The research is positioned within an interpretive paradigm using a phenomenographic approach undertaken within a case study methodology. This theoretical framework that underpins the research aim of gaining insights into how ECE student teachers in a hybrid early childhood initial teacher education (ITE) programme experience human connections with their lecturers in Aotearoa/New Zealand.

A description of the research process has been provided including an overview of the research context and how the ECE student teacher participants were selected within this context. Ethical issues such as harm to participants, informed consent, invasion of privacy and deception have been described. The process of data gathering and analysis has been detailed. Finally, the trustworthiness and credibility of the study have been explained.

The following chapter presents the findings of this study.

Chapter Four: Findings

4.1 Introduction

This chapter analyses the data generated from the individual semi-structured interviews, focus groups and asynchronous online discussions (AOD) located in Moodle (learning management system) in order to answer the research question and sub-questions are.

Overarching research question:

How do ECE student teachers in a hybrid early childhood initial teacher education (ITE) programme experience human connections with their lecturers in Aotearoa/ New Zealand?

Sub-questions:

1. What prior experiences do ECE student teachers bring to their hybrid initial teacher education programmes?
2. How are human connections experienced by ECE student teachers in their online professional relationships with their lecturers?
3. How do ECE student teachers perceive that digital technologies enable or constrain human connections with their lecturers?
4. How might ECE student teachers' experience of online human connections with their lecturers during their study shape their teacher professional identity?

The chapter also presents participant portraits to contextualise and understand ECE student teacher identity prior to and during the GradDipT ECE. To ensure that the ECE student teacher experiences and voices are authentically represented in the findings, I have included direct quotes from each data source.

The findings of my study are presented in four sections, with each section directly responding to a research sub-question. As stated in the introduction, student teachers are referred to as ECE student teacher participants to acknowledge their place and contribution in this research study as well as their student teacher status.

In the first section I present a composite portrait of each of the ECE student teacher participants drawn from the semi-structured interviews, focus groups and AODs. Each individual participant portrait includes the ECE student teacher participants' experiences prior to entry into the GradDipT ECE. Each participant portrait has a focus on the ECE student teacher participants' prior professional

relationships, in particular, their perceived connections with teachers and the reasons for them. In the second section I present findings that illustrate the human connections that the ECE student teacher participants experienced between themselves and their lecturers in their initial teacher education programme. The findings that are presented in the third section of the report explain how ECE student teacher participants perceived that digital technology enabled or constrained human connections with their lecturers during their study. In Section four, I present findings that explain how the ECE student teacher participants perceived that the human connections experienced with their lecturers shaped their professional identity and influenced their beginning teacher practice. Finally, the chapter ends with a summary of the findings.

4.2 Participant Portraits

The following section presents alphabetically a portrait of each of the nine ECE student teacher participants in this study (see Table 1 for overview). The participant portraits (Earl Rinehart, 2019; Hill, 2005; Neil, 2021) present findings that relate to each of the participants’ prior experiences of professional relationships in education with a focus on the human connections which they valued. It was deemed important to include this information in order to understand the makeup of each ECE student teacher’s personal identity prior to entering initial teacher education. The insights provided by the participant portraits will contribute to addressing the research question, as they can help to illuminate the ways in which participants’ personal identities and their emerging teacher professional identities have been shaped by their initial teacher education.

Table 1 Overview of ECE student teachers' demographics

ECE student teacher	Ethnicity id	First language	Prior qualification	Place of study
Olivia	New Zealand European	New Zealand English	Bachelor of Arts and science (New Zealand)	New Zealand
Zhiyu	Chinese	Chinese	Bachelor of information management	China
Caroline	New Zealand European	New Zealand English	Master of Science	London
			Bachelor of Teaching -primary	New Zealand
Aisha	Indian	Indian	Post Graduate Diploma in Education	New Zealand
			Bachelor of Social Work	India
Amy	Amy	New Zealand European	Bachelor of Teaching -Primary	New Zealand
Stephanie	Australian	Australian English	Bachelor of Business Studies	Australia
			Bachelor of Languages	Australia
Joanna	USA	American English	Bachelor of Philosophy and religion	USA
Jing	Chinese	Chinese	Bachelor of Arts	China
				China

Min			Master of Arts	Canada
			GradDip Hospitality management	New Zealand
			Post Grad in second language teaching	
	Chinese	Chinese	Bachelor of English Literature	China
			Post Grad education	New Zealand

4.2.1 ECE student teacher participant A (Olivia)

Olivia identified as a woman who was born in Aotearoa New Zealand. Olivia had previously studied a conjoint degree in Arts and Science in Aotearoa New Zealand. Commenting on her transition into the Grad Dip T ECE, Olivia compared her past experiences as an undergraduate student with returning to study as a mature postgraduate student and indicated that there was a difference in how she felt about her study. Olivia described this feeling when she noted that “coming back a middle-aged student is completely different. I must have mucked around last time. This time is completely different. Different ball game” (Olivia, interview 1).

Reflecting on her previous experiences of face-to-face professional relationships with her lecturers, Olivia reported that she had found them to be functional, distant and professional. This is evident in her comment that her professional relationships with her lecturers were “quite formal and that they served a purpose...they were very professional and very distant I guess” (Olivia, interview 1). It is interesting to note that Olivia felt a ‘distance’ between herself and her lecturers in a face-to-face learning environment, because as many people assume that a face-to-face format inherently involves personal contact and openness to natural human interactions such as body language and tone. In her experiences this ‘distance’ can perhaps be attributed to the formal, professional manner of interactions with her lecturer.

However, in Olivia’s recollections, there were exceptions to the general impression of distance in her interaction with educators. In her previous study of a conjoint degree in Arts and Science in Aotearoa New Zealand there were two lecturers that Olivia did feel a stronger connection with. Olivia felt that her sense of a human connection with her lecturers was engendered by her lecturers’ sharing of stories about their lives outside of academia. In Olivia’s words the sharing of personal stories “let us in personally” (Olivia, interview 1) and seemed to indicate a more trusting and reciprocal professional relationship where lecturers were authentic and open in sharing their identity. For Olivia this was important because she had a sense of connection which seemed reciprocal and authentic. Olivia

thought the sharing of personal stories was particularly effective when lecturers linked the stories to the course content. From Olivia's perspective her lecturers sharing personal stories demonstrated their human side which enabled her to perceive them as approachable and friendly. She summed up this point by saying "oh yeah, they're human they've got their stories (Olivia, interview 1).

Olivia's perception of these two lecturers as approachable and friendly impacted on Olivia's learning in three ways. Firstly, Olivia felt that her lecturers were accessible, and she felt comfortable to visit them for informal, formative feedback to affirm to Olivia that she was on the right track in her study. The perceived sense of informality of the interactions with her lecturers also seemed key for Olivia in establishing a sense of connection. In Olivia's case, a sense of informality was created by her lecturers being consistently physically available in their offices so she could pop in at any time without having to make an appointment, having offices that were inviting and comfortable to visit and finally talking about her assignments with her so she was reassured he was on the right track. Secondly, by visiting her lecturers Olivia was able to establish and develop professional relationships with them over time. Thirdly, Olivia was more engaged and connected to the courses and subsequently did well in them. As Olivia noted "I did well in those papers because I cared more, and I was able to make that connection" (Olivia, interview 1)

4.2.2 ECE student teacher participant B (Zhiyu)

Zhiyu was from China and identified as male. Zhiyu had previously studied a bachelor's degree in information management and information systems in China before continuing his studies in London, UK, by undertaking a Master of Science in Project Management. At the beginning of study in the Grad Dip T ECE, Zhiyu had lived in Aotearoa New Zealand for less than six months (TEPS755, Discussion Forum, Introduction).

On entering the Grad Dip T- ECE Zhiyu had previously experienced a range of professional relationships in the contexts of face-to-face tertiary study and online professional development programmes. The variety of his experiences of professional relationships provided different opportunities and contexts for him to consider the human connection in his professional relationships.

Reflecting on human connections with his lecturers in his past online professional relationships, Zhiyu shared that he had felt no human connection. Zhiyu identified that the reason he felt this way was because of his perception of an absence of communication between himself and his lecturers in the programme. Although his lecturers used PowerPoints and videos of themselves to convey course information, Zhiyu felt that while he could see and hear his lecturers, "there was no communication

at all" (Zhiyu, Interview 1). It seemed that Zhiyu' lecturers were focussed solely on transmitting course content to their students via the eLearning platform rather than drawing on the different affordances of digital technologies to establish relationships at the same time. Zhiyu further explained why he felt like this when he said "They [lecturers] were just talking like robots, there was no eye contact, nothing, it's just like reading, they [lecturers] just read things to us" (Zhiyu, interview 1). Zhiyu's sense of not having a human connection mediated by communication in his online professional relationships with his lecturers was further compounded by the nature of assessment and lecturer feedback in the programme. The assessments, which were worksheets, did not provide an opportunity for communication with Zhiyu via personalised lecturer feedback as they were marked with points rather than written formative feedback.

In relation to his face-to-face tertiary professional relationships with his lecturers, Zhiyu explained that he felt a particular connection with two of his lecturers. Zhiyu identified five factors that were important from his perspective for engendering a feeling of a human connection with his lecturers in his previous study. The factors differed between the two lecturers and were reflective of the individual experiences, gender, and personality of each lecturer and how they resonated with Zhiyu. For example, the first lecturer (a woman) that Zhiyu felt a connection to had lived in China and so had an understanding and awareness of Zhiyu' culture. The lecturer also made time after class to chat with Zhiyu so that they had an opportunity to share their mutual cultural understanding and connection. The second lecturer (a man) that Zhiyu felt particularly connected to have a good sense of humour and was passionate about his topic. Zhiyu explained this sense of connection by explaining that "actually my favourite was another lecturer in Greek. I think it is because he always tells jokes in class and was passionate about the subject he was teaching. It's funny I felt closer to him, and he is a man" (Zhiyu, interview 1). It is interesting to note Zhiyu's surprise that he could feel connected to a lecturer of the same gender. Although Zhiyu did not elaborate on why this was, his comment combined with his body language and vocal intonation intimated that he was taken aback by his recognition of this connection with his male lecturer. It could be conjectured that Zhiyu was forming his opinion based on his previous experience of professional relationships with his male lecturers where he had felt no connection and is thus an example of how prior experiences can influence future contexts.

For Zhiyu, the impacts of feeling a human connection in his professional relationships with his lecturers were significant. This was because feeling a human connection with his lecturers motivated Zhiyu to fully engage in their courses and do well in them. As Zhiyu explained, through a human

connection “I think I feel more personally involved and I put more effort in the subjects because they are personal to me and will take more interest in the subject” (Zhiyu, interview 1).

4.2.3 ECE student teacher participant C (Caroline)

Caroline identified as a Pākehā (European New Zealand) woman from New Zealand. Caroline’s undergraduate degree was a Bachelor of Education in Primary Teaching. Caroline subsequently studied an online Post Graduate Certificate in Education focussing on needs assessment for people with disabilities.

Recollecting her past lecturers, Caroline identified ones that she had felt a strong connection within her previous professional relationships. During her undergraduate study Caroline felt connected to a lecturer who she was able to talk with about a wide range of topics. Significantly, for Caroline, the lecturer looked beyond academic requirements for assessment and embraced a holistic view of learning that recognised Caroline’s interest and connection with a subject. It seemed that the lecturer saw Caroline as a person rather than through the lens of a marking rubric and grade. This point is demonstrated in the following quote:

I always remember one [lecturer], and I must have completely flopped in my music lecture or my music essay, but she passed me because she said I clearly felt the music. And I thought that was pretty cool (Caroline, interview 1)

Whilst completing her online Post Graduate Certificate in education, Caroline felt a human connection with lecturers who engaged in the online conversations by providing feedback that was contextual to the conversation and personalised to her. Caroline’s lecturer’s engagement in the online conversations seemed to forefront a human connection with Caroline through their thinking and engaging in the topic together rather than simply posting generic, transmissive contributions. For Caroline, their approach communicated that these lectures acknowledged and valued her contributions. Reflecting on their feedback on her assessments, Caroline said:

Valuing the time that I had put in and that made me feel it was personal. Like, “I agree” or “I’m not sure that I agree with you here, this is what I think”. They [lecturers] don’t have to agree with me all the time, but they were engaged, and I felt they were engaged with me. Rather than I was just a number (Caroline, interview 1)

Caroline felt a connection with lecturers who were explicit that they were learning too and did not position themselves as the experts. The positioning of lecturers in this manner aligns well with a socio-cultural view of learning that underpins a community of learners. The approach of these

lecturers supports a learning environment that values dialogue between community members and enables a space for negotiating meaning to facilitate learning. The connections were important to Caroline as they enabled her to feel that her lecturers were interested in her as a person, that her thoughts were valued, and that she and her lecturers were learning together. The connections valued by Caroline impacted on her learning as she felt comfortable and motivated to be able to share, discuss and re-evaluate ideas.

4.2.4 ECE student teacher participant D (Aisha)

Aisha identified as a woman who originated from India. Aisha had migrated to Aotearoa New Zealand from India with her family eight years prior to starting the Grad Dip T ECE. Aisha's prior degree was a Bachelor of Social Work. Aisha valued being social which she attributed to her cultural influences and in her own words was a "chatterbox, and I love being with people and meeting new people. I think I got that from the joint family system" (TEPS755 Discussion Forum).

Aisha's recollections of her time in school were limited and the ones she did have were not particularly positive. Her experiences are captured in her words below:

I do not have many good memories of school other than hanging out with my friends. I found my schooling very stressful because I was not academically great and teachers only favoured children with good grades. Not a single teacher at that time in my school valued the uniqueness of a child, they were all too busy focusing on academically exceptional children and constantly embarrassing and blaming students who were struggling with their studies. When I think about my teachers, I can only find negative influence they had on me. Once I finished school, I lacked confidence and self-esteem. I was unable to make a decision myself fearing that I would end up in making mistakes. So, my teacher's negative influence on myself is enough to understand the positive impact that a teacher can make in a child's life (Aisha, TEPS754 Discussion Forum)

It would seem that Aisha's earlier experiences of professional relationships during her school years significantly influenced the way she perceived professional relationships in tertiary education. Aisha reflected that she had two lecturers in her tertiary studies that she felt a human connection with. One lecturer she perceived provided pastoral care, and although she felt he was not a good teacher commented that "we had a good relationship though. Like, you could just go and tell him what was going on, like you can't cope and all these things" (Aisha, interview 1). The other lecturer she regarded as important for academic support and positioned him as the expert, an expert who transmitted what Aisha deemed to be correct information for her to learn and use to pass the assessment. As Aisha explained:

He was very serious, you would be afraid to go and talk to him, but he knows his stuff, he is the expert...By the time he had finished the class we had good notes. He made it really simple; he didn't use academic words and by the time I finished class that was when he would give a handout...you only had to read his notes, and you could pass the exam (interview 1).

It seemed that Aisha's school experiences made her seek confirmation that what she was learning was correct and that she would succeed academically. Consequently, Aisha appeared to value an academic professional relationship with a lecturer who provided clarity and correct answers more than one who she perceived to provide pastoral care.

4.2.5 ECE student teacher participant E (Amy)

Amy identified as a woman who originated from Aotearoa New Zealand. Her prior study was a Bachelor of Teaching – Primary. On entering the Grad Dip T ECE, Amy was returning to study after a nine-year gap.

Reflecting on her past professional relationships, Amy drew from her experiences of school and found that her perceptions of hierarchy within professional relationships created a barrier to feelings of connectedness. This is demonstrated when she stated “When I entered University the first time it was as a mature student, and I never finished school. I guess I felt not necessarily the threat but the hierarchy that this person [lecturer] is senior to me and maybe I had a bit more of that fear so didn't feel that personable relationship” (Amy, interview 1). Amy further explained how her perception of power dynamics in her professional relationships with her lecturers impacted on her learning as it stopped her from feeling comfortable to approach lecturers on an individual basis for support. “I guess I've been a bit more intimidated by the person that holds all the power and all the knowledge, and I haven't felt relaxed enough to do that [contact lecturers individually out of class time” (Amy, interview 1). On reflection Amy thought that she was “quite good at being a self-directed learner but in hindsight probably made some things harder for myself by not seeking help” (Amy, interview 1).

Amy identified that she did develop a connection with one lecturer in her prior studies. Amy attributed the sense of connection she felt with her lecturer to being able to get to know her lecturer through consistent face-to-face time in classes on a topic that she really enjoyed. For Amy, the sense of connection was important as it negated the feelings of intimidation due to the power dynamics between herself and her lecturer.

4.2.6 ECE student teacher participant F (Stephanie)

Stephanie identified as a woman who originated from Australia. She migrated to Aotearoa New Zealand and described herself as “a relatively new immigrant” (TEPS751 Discussion Forum).

Stephanie had undertaken significant undergraduate study and had completed three degrees in Business Studies and languages.

Reflecting on her prior professional relationships with her lecturers Stephanie commented that she had had various experiences. In her first degree, Stephanie felt a strong connection with one lecturer who she felt was approachable, made an effort, got to know his students and valued teaching. Some of these points are captured in the following comment from Stephanie:

He went above and beyond and made the lectures seem fun...We also knew he wanted to teach and was being forced to do a master’s research which he didn’t really want to do. He wanted to teach so he stood out for me as he really wanted to be there to teach and was not doing a bit of teaching on the side of his research (interview 1).

Stephanie noted that this professional relationship was particularly valuable to her because the lecturer taught a subject that she did not enjoy but he made it enjoyable. This impacted on Stephanie’s learning as it helped her to engage in the topic and do well academically. She compared this experience with professional relationships in programmes whose content she did enjoy and stated that, “I didn’t require them [relationships] to learn, I think it mattered most was when the subject itself was not something I was passionate about” (Stephanie, interview 1). Although Stephanie did not feel that professional relationships with lecturers were necessary in study for which she was self-motivated, she did value her peer-to-peer connections for support in all her studies and regarded them as reciprocal mentor and mentee relationships.

4.2.7 ECE student teacher participant G (Joanna)

Joanna identified as a woman and originated from the USA. Joanna had a prior undergraduate degree in Philosophy and Religion. Before moving to Aotearoa New Zealand, Joanna recognised the importance of valuing and being inclusive of cultural diversity for engendering a sense of belonging in a learning environment when her daughter started school. These values were an important factor between the teacher, her daughter and herself in nurturing an ongoing professional relationship that was warm and enduring. These values are demonstrated in her Discussion Forum contribution which identified key elements of a sense of connection in the professional relationship between Joanna and the teacher, such as being a friend and being genuine. She explained:

When we moved to Canada from the US, my oldest daughter began attending a school in [name of place]. Fortunately for her, her first teacher was (and is) an amazing woman. (As an aside, we kept in contact, and she and her daughter just visited us here in NZ a few weeks ago! It was lovely!!) In the kindergarten, my daughter was warmly welcomed and held, regardless of our cultural difference. She was genuine and engaging. Looking back, I can see that she set my little girl up for success. She also was a big inspiration and a good friend to me!

When thinking about professional relationships in the context of her own study, Joanna noted that one lecturer she felt a connection with provided an opportunity for dialogue and debate. Joanna further described her sense of a connection with her lecturer as a reciprocal professional relationship where her voice was valued, and she received personalised, constructive feedback. The professional relationship with her lecturer impacted her learning by making her feel comfortable to question and motivating her to do better in his course.

4.2.8 ECE Student Teacher Participant H (Jing)

Jing identified as a woman and originated from China. Jing had previously undertaken a Bachelor and a Master of Arts which she studied in her home country of China. After completing her Master of Arts, Jing continued her study in another country, undertaking a Graduate Diploma of Hospitality Management. Jing then travelled to Aotearoa New Zealand to undertake a Post Graduate Diploma in second language teaching (applied linguistics).

When reflecting on how her experiences of connections in her professional relationships in her previous studies have impacted on her, Jing remembered her childhood and highlighted how liking her teachers motivated her to engage in their subjects. Jing explained that “since I was a small child, I felt that if I liked the teachers, I would study that particular subject. I have always had good English teachers growing up, so I wanted to study English” (Jing, interview 1). Along with influencing her choice of subject, Jing also recounted how she perceived the encouragement from a high school teacher as an act of caring which had subsequently motivated her to study. This is evident when Jing states “I still remember how my English teacher encouraged me. I feel they care more and then because of the relationship because I know they care so I want to study, so I want to work hard” (Jing, interview 1)

Reflecting on her professional relationships across three countries in tertiary education, Jing explained that she has always had good relationships with her teachers. However, Jing felt that there were distinct cultural influences in the way the professional relationships are enacted, in particular the types of connections within the relationship. For example, Jing comments about the hierarchical nature of professional relationships in China as being “a little bit different because you need to

remember that teachers are higher than you and you have to be careful when talking with them – as long as you show respect but there is always a little distance between you and your teachers” (Jing, interview 1).

In Canada and Aotearoa New Zealand, Jing identified caring as being a key element to feeling a sense of connection with her lecturers. From Jing’s perspective the act of caring was demonstrated by her lecturer being available outside of lecture times to support her understanding of readings and assignment topics. Jing valued personalised, formative feedback which was inclusive of her culture and recognised that English was an additional language. For example Jing commented, “The teacher really cared about the students even though I come from China...sometimes I have problems with assignments and all the reading but they [lecturers] never show any difference they are always there...you can go to their office and they can tell whether you are on track or not...They really support because they have said that they want me to do what I want to do and to do the best for me” (Jing, interview 1)

The importance of experiencing a caring connection in her professional relationships with her teachers and lecturers, has not only had a significant influence on Jing’s study choices and motivation, but also her aspirations for her own future teaching practice. This is evidenced when she notes that “yes, that’s a teacher, the teacher I want to become and that’s the teacher that really cares about the students” (Jing, interview 1).

4.2.9 ECE student teacher participant I (Min)

Min identified as a woman and originated from China. Min gained her degree in English literature in China and then worked for 4 years before she moved to New Zealand to study a general education post-graduate qualification.

Reflecting on the professional relationships she experienced during her education in China, Min commented that “I didn’t have a very good relationship with my teachers perhaps to do with the Chinese education system” (Min, interview 1). To help explain her point, Min compared her experiences of a sense of connectedness in her professional relationships between her lecturers in China and Aotearoa New Zealand. Min noted that with her lecturers in Aotearoa New Zealand she felt a connection because of the lecturers’ pedagogically inclusive approach to planning and facilitating the learning environment. For example, Min commented that “they [lecturers] always give and provide us comfortable, easy environments. They [lecturers] let us feel free to discuss, talk about everything” (Min, interview 1). Min described the strong connection she felt with one particular lecturer, who due to her personality, planning and facilitation of the learning environment,

Min felt was very approachable. For example, the lecturer planned learning environments which provided opportunities for students to give feedback on the lecturer's own teaching style to see how she could better support the students in their learning.

The feeling of her lecturer being approachable impacted Min's learning in a positive way as she felt comfortable visiting her lecturer out of class time to seek support with clarification and understanding of topics and assignments. The lecturer ensured that she was accessible by making time for meetings with Min in her office. During the meetings, the lecturer provided personalised feedback by explaining definitions to support Min's understanding of English terminology specifically related to the education sector. For example, Min commented that "She did lots of work to help me understand especially the hard terms or definitions. Some words I was not familiar with because previously in China I just studied English not one particular field" Min, interview 1).

4.2.10 Summary

Data from the semi-structured interviews and discussion forums were analysed and categorised with respect to ECE student teacher participants' portraits and experiences of professional relationships (which included valued connections) in their previous experiences of study. The information in the portraits is important as it provides insights into each of the ECE student teacher participant's identity in the context of professional relationships, prior to starting study in the Grad Dip T ECE. The portraits show that each of the ECE student teacher participant's identity shaped and influenced the way in which they experienced human connections in their online professional relationships with their lecturers during their study. The consideration of each ECE student teacher participant's identity prior to starting study in the GradDipT ECE also enabled opportunities to analyse whether there were any changes to their identity during and after their study in relation to their understanding of professional relationships.

The following section of this chapter presents the findings from semi-structured interviews and focus groups on direct response to the research sub-question: how are human connections experienced by ECE student teachers in their online professional relationships with their lecturers?

4.3 ECE Student teachers' experiences of human connections with their lecturers in their professional relationships.

This section of the chapter presents data that explains ECE student teacher participants' experiences of human connections with their lecturers during their study. The reported experiences of the ECE

student teacher participants address the second research sub-question: how are human connections experienced by ECE student teachers in their online professional relationships with their lecturers?

The following findings are presented in four themes that were generated during the analysis of the data collected in the semi-structured interviews, focus groups and AOD forums. Each theme depicts a different aspect of how human connections were perceived and experienced by the ECE student teacher participants. The four themes are: (1) ECE student teacher participants' perception of knowing their lecturers as real people; (2) Informal communication between lecturers and ECE student teachers; (3) lecturer feedback and feedforward, and (4) being a participant in an online learning community.

4.3.1 ECE Student teacher participants' perceptions of knowing their lecturers as real people

Data showed that ECE student teacher participants felt a human connection with their lecturers when they were able to perceive them as real people. Analysis of the data indicated that from the ECE student teacher participant perspective, there were key factors that enabled them to relate to their lecturers as real people. Each of the factors are now presented in the order of meeting lecturers face-to-face, lecturers sharing stories, lecturers sharing knowledge, lecturers demonstrating fallibility, lecturers seeming approachable and lecturers expressing and showing emotions.

4.3.1.1 Meeting lecturers face-to-face

A clear preference was shown by the ECE student teacher participants that meeting their lecturers face-to-face was important in establishing and experiencing a human connection with them. This is evidenced as seven of the nine ECE student teachers shared during the semi-structured interviews and focus groups that meeting their lecturers face-to-face was instrumental in nurturing a human connection with them. The ECE student teachers attributed the sense of connection with their lecturers through face-to-face meetings to the opportunity of being able to get to know the real person. For example, Olivia in her semi-structured interview commented that when one of her lecturers participated in class during orientation "I felt even that one connection, meeting that person made a difference to me (interview 2). Opportunities to meet with lecturers face-to-face did not only exist in the learning environment but also through the University systems and processes which include a pre-entry interview. This point is illustrated by Aisha who noted that "I found the interview a good medium to really get to know the lecturer" (Aisha, focus group 1). The reason given by the ECE student teacher participants for the importance of face-to-face meetings for knowing

their lecturers, was that they felt that they experienced the whole, authentic person. These points are captured in the following comment “when you talk to them in person it feels like the whole thing you are experiencing with them” (Jing, interview 2).

Several of the ECE student teacher participants found that meeting their lecturer face-to-face was not only important for establishing an initial human connection with them but also helped to better ‘know’ their lecturers in the online learning environment. The participants attributed feeling this way to being able to transfer their knowledge of their lecturers from the face-to-face meetings (such as humour, language, teaching style and tone of voice) into their online interactions. These points are captured in the following quotes from Joanna and Caroline:

Well having met Lecturer 1 and Lecturer 2 has made a big difference for me. I don't have the warmth or kind of relaxed sensation around the other two papers because I have never spoken to those other two people, is it [Lecturer's name] and what's the other one? I've seen a video of them, but it makes a big difference having spent time with [Lecturer's name] and listening to [Lecturer's name] teaching style, I almost still hear [Lecturer's name]. To me I have made the connection with the human (Joanna, interview 1)

I was thinking about that the other day actually because it was really lovely to meet and spend time with lecturer 1 and lecturer 2 - we just touched base with some other lecturers -that really did help a lot for me in establishing that relationship and knowing little things, like sense of humour, approach to the discussions, and questions (Caroline, interview 2)

Not meeting lecturers face-to-face caused a disconnect for two of the participants in the online learning environment; they felt that they did not know their lecturers fully and therefore felt distanced from them:

To me I have made the connection with the human but the other two papers I am finding a little bit more - I feel that they are quite distant (Joanna, interview 1)

For Jing, the feeling of distance from her lecturers was detrimental to her engagement in her learning as it impacted her motivation to engage in their courses.

But because I've never met them, the other two lecturers, I always feel like I want to do [Lecturer's name] and [Lecturer's name] first because I know [Lecturer's name], because I have talked to [Lecturer's name] and [Lecturer's name] interviewed me for coming to this program. So, I always feel closer to [Lecturer's name] because I know them personally (Jing, interview 1)

Jing was also aware that not having met some lecturers face-to-face was causing her to see them in a deficit way in the online learning environment which resulted in a less harmonious relationship and was a barrier to her learning. She compared her experience of a feeling of “not getting on with” one of her lecturers, to that of one of her peers who reported a good sense of connection with the same lecturer. Jing attributed the difference in their experiences to her peer meeting the lecturer face-to-face during the interview for the programme, so having an opportunity to get to know the lecturer.

Conversely, for two of the participants not meeting their lecturer’s face-to-face was deemed a positive factor in developing a connection with them. For example, Zhiyu asserted that from his cultural perspective not meeting lecturers face-to-face enabled him to engage in the online environment without preconceptions about the lecturer. He explained his point of view by stating:

Maybe it’s because I am Chinese, we like to judge people on first impressions, judge their looks, how they talk, how they behave, to have maybe an impression in our minds on how we might like them and this, I feel is not a good thing. So, on the course because we don’t meet face-to-face, we don’t judge. I think it is a good thing as we take that impression without judgement and we get to know teachers by the topics they teach and how they introduce themselves (interview 1)

It was also important that having met their lecturers, participants felt that their lecturer's face-to-face and online personas should match. For example, Stephanie and Jing emphasised the importance of congruence between the online and face-to-face personas of their lecturers for maintaining a positive human connection with them. It seemed that the matching of face-to-face and online personas further endorsed the perceived realness of the lecturer. This is illustrated by Stephanie who noted a realness and consistency in the connection between herself and her lecturers when her lecturers’ online and offline personas matched and noted, “There was an authenticity between who you met at the beginning [during face-to face orientation} and who you met online” (focus group 2).

However, two participants commented that in the case of some lecturers there was a mismatch between their personas in face-to-face and online settings. They said:

It feels like that the image [Lecturer’s name] has online is different from the image that I have when I meet her in person (Jing, interview 2).

Why are you like this online? You are stuffy and condescending and we were all afraid to approach her ...and then you meet [Lecturer’s name], and she is completely different. You can talk to her, friendly. It was just like we had built up this image of a dragon (Stephanie, interview 2)

For Stephanie and Jing, their perception of a mismatch between their lecturers' online and face-to-face personas caused uncertainty and disrupted the human connection between them which seemed to stem from a lack of trust. For example, as Stephanie explained "there was another lecturer ...who when she was face-to-face was so different from who she was online that I didn't know where I stood" (Stephanie, focus group 2)

The ECE student teacher participants also felt it was important that there was a sense of reciprocity in the human connection, and that their lecturers knew them as real people too. Although ECE student teacher participants met some of their lecturers during interviews and orientation, Olivia and Aisha felt that their participation in the AOD forums and assignment submissions were not sufficient for lecturers to know them fully. This feeling is captured in their following comments:

For me I found that all that reflection, all that working together that I needed people to understand where I was coming from, and I feel that the lecturers wouldn't have got that through just reading posts online. Whether that is right or wrong that's how I felt (Olivia, focus group 1)

I always think about if I put [lecturer] name down as a referee [lecturer name] would probably know me for another lecturer, they don't know me. They just can't know me enough by reading my post and assignments (Aisha, interview 2)

The feeling was further compounded for Aisha, Zhiyu and Min, who expressed that as English was an additional language for them, they felt disadvantaged having to communicate in a written format only. For these three participants, it felt as if their lecturers could not truly know or understand them as they could not effectively convey who they were through in written form. The three participants felt that if their lecturers had the opportunity to meet them face-to-face in a classroom environment they would be better able to express who they were, and lecturers would have an opportunity to fully know and understand them. They made the following comments:

I feel that lecturers would have a different understanding of me if I were in a face-to-face class. I feel that lecturers assess me on what I write, and writing is not my strength as English is not a first language for me. I feel that I could get my points through better if I am able to talk or participate in class verbally. I don't think the lecturers have actually got a picture of me, who I am, don't have an image of me. I think they would have a different picture of me if I were in their class. They would remember me better if I were in their class. I can't portray who I am through text alone (Aisha, focus group 1)

I feel like there is another side of the lecturers and there is another side of me, and you can know more about me, and I can know more about you if I am in a class. And postings, weekly discussions, assignments and everything is only assessing me based on my writing. So as a person from a non-English background, maybe for

English speakers writing is really ... mine is like really hard on my writing and I used all the Grammar lee and other stuff to get through it (Aisha, interview 2)

I chat a lot and I use this online technology a lot but when it comes to learning I think it is still kind of a bit different because it has some disadvantages because for us as international students English isn't our first language and we can write but sometimes it might be the words doesn't quite tell exactly what we meant and maybe when we talk face-to-face it is better for lecturers to see our emotions, our expressions our body language so that they can know better what we are talking about (Zhiyu, interview 2)

I would like to have more discussion face to face so that {Lecturer's name} can get a better understanding of me (Min, interview 1)

Such was the desire to meet with lecturers face-to-face that five of the participants sought opportunities to meet lecturers outside the programme requirements. This is illustrated by three ECE student teachers participants' who took part in this research project and chose to be interviewed face-to-face (Aisha, Jing and Zhiyu), and two ECE student teacher participants (Aisha and Amy) who attended a seminar so that they could meet with their lecturers and gain a better understanding of them.

4.3.1.2 Sharing stories

The ECE student teacher participants expressed that when their lecturers shared stories about their lives. it nurtured a human connection with them as it provided insights into their feelings and activities outside the university. This point is captured by Zhiyu who commented:

Well actually some of the lecturers are very good. They tell us about their family, what they are doing and how they feel about certain things. That's good as it makes us feel like we are talking to someone and are relating to their lives" (Zhiyu, interview 1)

From Amy's perspective, the possibility of not knowing anything about lecturer's personal lives seemed odd. Amy commented "It would seem quite strange to know nothing about them [lecturers] other than their professional accomplishments. I would find that strange anyway" (focus group 2). Stephanie shared the same perspective as Amy, in her observation that knowing more about lecturers beyond the paper content and academic achievements enabled her lecturers to be perceived as human. This is illustrated when Stephanie stated that "We've all got things happening other than this 'this is what I want from you ra di ra. It was actually nice knowing what was happening for other people which again was being human "(focus group 2).

Although ECE student teacher participants valued their lecturers' sharing of personal stories, Stephanie and Amy were very clear that it was important that lecturers remained within professional boundaries while doing so. For example:

"With [lecturer's name] she was quite forthcoming, she was honest about her relationships, we knew she had a place in Hamilton and one in Wellington, we felt we knew her and again on that professional level, we knew enough to make her personable rather than very formal" (Stephanie, focus group 2).

However, ECE student teacher participants' acknowledged that lecturers had different ways of interpreting and enacting professionalism in the online learning environment. More formal interpretations caused barriers in nurturing a human connection. For example, Amy reflected that:

[Lecturer's name] brought in some of their personal life whilst still remaining professional and I guess some other lecturers interpreted professionalism differently. My perception is that is that they kept themselves in very separate boxes, we have no idea if they have relationships themselves and this made it very formal, we knew nothing about them personally (focus group 2)

For Amy there seemed a clear need to know more about her lecturers' rather than their world of academia and this caused a barrier for Amy in connecting with them when they shared little or no personal information.

4.3.1.3 Sharing knowledge

Lecturers sharing knowledge was considered by the participants to engender a human connection with them. As Olivia explained one reason for this is that "a computer-mediated interaction became human by just answering a question that can't be done by a computer - it's done through a computer, but it is their [lecturers'] knowledge that they are answering questions from" (interview 1 reference 3).

However, the way that lecturers shared their knowledge was deemed important by the ECE student teacher participants for nurturing a human connection. For two ECE student teacher participants it was important for human connection that the lecturers did not position themselves as the experts when they shared their knowledge. For these students, this demonstrated a non-hierarchical relationship and democratisation of knowledge where learning was perceived as a shared endeavour through co-construction. This view is illustrated by the following comment:

I think someone asked a question like "we're kind of confused about one topic and she [the lecturer] is like "my understanding of this term is that..." Like I don't know-she doesn't know it is just her understanding, it's not like it must be right and you must be wrong. It is like we

are exploring the topic together with us and she is not sure, so she gives us her opinions. That kind of makes me feel she is human (Jing, interview 2).

4.3.1.4. Demonstrating fallibility

Six of the nine ECE student teacher participants reported that when they perceived their lecturers as being fallible in the online learning environment, it nurtured a human connection with them. From the ECE student teacher participants' perspectives lecturers expressed their fallibility in different ways.

For Caroline, lecturers' making mistakes conveyed a feeling of fallibility "oops, you know I've made a mistake" and I'll be like " phew they make mistakes too - it's all right (Caroline, interview 2)

For Olivia, Stephanie and Caroline, a sense that their lecturers were not perfect nurtured a feeling of a human connection because of the impression of non-hierarchical relationships. Not being perfect included lecturers being late with feedback, pausing to think, not being word perfect and having unexpected interruptions in their video and audio files. These points are characterised by the comments below:

So, hearing [Lecturer 3] for example being over in Australia and saying her voice-file was a little bit late and reasons why and also it was really hot, and I might have been distracted by going for walks. And I thought "Yeah they're human" we are all in this together (Olivia, interview 1)

Showing a bit of not necessarily vulnerability but showing that you are human and that you are fallible (Stephanie, focus group 2)

For Olivia, unexpected interruptions from colleagues when recording video files provided a favourable opportunity to see a fallibility in their lecturers which is illustrated when she commented that "it's nice that you see that you're human because people come in and say, "oops sorry" or that the phone rings" (interview 1).

For Olivia and Aisha, they sensed the fallibility of their lecturers when the lecturers recorded video-files. This was because the ECE student teacher participants could sense that some of the lecturers felt uncomfortable and uncertain when recording themselves. This was perceived by the ECE student teacher participants as their lecturer going out of their comfort zone and appearing vulnerable in a medium they did not enjoy using. For example:

Some lecturers say that they are don't want to, they are not comfortable doing the video (Aisha, Interview 2)

When I watch people, I know that they feel uncomfortable making them and I know [Lecturers name] hates them and I can see that she feels uncomfortable but for me I really, really like them as she is tangible, she is real, and I appreciate that time (Olivia, interview 2)

4.3.1.5 Sense of approachability

Five of the nine ECE student teacher participants identified that the characteristic of lecturer approachability was important in nurturing a human connection. This was because the ECE student teacher participants felt that lecturer approachability created a warm learning environment where ECE student teacher participants felt comfortable to ask questions. A sense of lecturer approachability was experienced in different ways by the ECE student teacher participants.

For Caroline, the use of social language conveyed a sense of friendliness which made her lecturers seem approachable. Although the use of social language is also presented in the informal presence section of the findings, it is included here as it relates specifically to lecturer approachability. She explained:

Right with [Lecturer 5] there's definitely an approachability, how would I say this, you sort of get the impression you come across as a bit chatty and friendly, and dare I say it, is this because she is younger? (Caroline, interview 2)

So, for me, chatty might not be the word but just approachable, friendly and probably down to earth, sort of a practical response. Even starting off with a "oh gosh things are busy for you" and then moving onto the answer to the question. It does actually make for a more approachable experience and relationship (Caroline, interview 2)

Four of the nine ECE student teacher participants identified that they perceived their lecturers as approachable when they used humour. For example, Joanna commented that in the context of the AOD for her "humour really warms it up" (interview 1) and Stephanie noted that for her "the humour that [lecturer 3] would use which made him particularly approachable" (focus group 2). Humour was specifically referred to by two of the ECE student teacher participants as "quirkiness" (Stephanie, interview 1 and Amy, interview 1). The use of the term 'quirkiness' in this context, was related to how lecturers conveyed their humour through choosing particular information to share. For example, Stephanie commented "The occasional quirky kind of information - enough to make you laugh. Your staff picture and your profile and that's it - there is more to it" (Stephanie, focus group 2). An example of humorous, quirky information is provided by Amy who said, "finding out that [Lecturer 1] collects rubber ducks, you know it is that kind of personality" (Amy, interview 1).

Humour was clearly deemed to be culturally bound and not always received in a positive way. For example, one of the ECE student teacher participants who was from the U.S commented that:

Sometimes, well often, my humour isn't found to be funny here. In the US I used to make people laugh regularly and now I find more often than not that kind of goes stiff and I think well that wasn't funny was it (Joanna, interview 1)

Whereas other ECE student teacher participants found British humour (note that several of the lecturers were British) to be particularly engaging and funny. They observed:

I think the humour is good, you know being jollied along. I don't know if it is just me, but I very much appreciate the English humour. I think it is quite funny. It is a bit on the dry side. It's tickling my funny bone (Joanna, interview 1)

4.3.1.6 Expressing and showing emotions

Some of the participants appreciated it when their teachers showed their emotions. Four participants felt that when their lecturers expressed their emotions in the online learning environment it nurtured a human connection with them. It was noted by the ECE student teacher participants that emotions can be both positive and negative and that expressing either of these emotions demonstrates one's humanity. This view is illustrated by Zhiyu who commented "we might be excited about something or upset about something" (interview 1). Lecturers were felt to convey their emotions through their communication with the ECE student teacher participants in Moodle. For some ECE student teacher participants this was an effective medium to convey how lecturers were feeling and nurture a sense of connection with them. For example, Min stated "even though I cannot see my lecturers face-to-face I can feel their feelings and emotions" (Min, interview 2). Caroline endorsed this perspective by providing an example of her lecturer sharing news about a recent bereavement and explained that "[lecturer's name] saying sad news about the funeral and you think that's right they are human" (interview 2). In relation to the sharing of emotion, two of the ECE student teacher participants highlighted the importance of their lecturers' maintaining professional boundaries and not oversharing.

Conversely, some participants indicated that it was hard to pick up on lecturers' emotions in the online setting. They shared that it could be difficult to pick up on how their lecturers were feeling if they were not seeing them regularly face-to-face. In particular, the ECE student teacher participants referred to not knowing if their lecturers were feeling stressed. The findings indicated that if the ECE student teacher participants had sensed that their lecturers were stressed, they would have been more tolerant if lecturers appeared abrupt in their communication or not present in the online learning environment.

One form of emotion that was specifically mentioned by the ECE student teacher participants was empathy. Data generated during the semi-structured interviews indicated that three of the nine ECE

student teacher participants found that their lecturers' expression of empathy was valuable in creating a human connection with them. In this context, empathy is defined as a feeling of compassion and concern for another person. For Amy, Joanna and Stephanie, feeling empathy from their lecturers was valuable in supporting them emotionally during challenging times. Joanna explained that "I guess being understanding, because life does happen" (Joanna, interview 1), while Amy said, "What I personally seek in my human relationships is - I guess understanding at the moment" (Amy, interview 1).

Stephanie, who had had a personally very challenging year, particularly valued the empathy she received from her lecturers in supporting her in her study and wellbeing. This is evident as she referred to the importance of empathy several times in her second semi-structured interview and returned to the topic during her focus group.

One thing that has been wonderful in this course is the empathy. You people have shown at all times, and that is been something that I probably wouldn't have valued so much at the start of the year when everything was shiny, but now it's been the worst 2 months of my life and yet the empathy that you guys have shown towards me has been wonderful (Stephanie, interview 2).

But yes, feeling comfortable to just tell you that something really shit has just happened. I wasn't expecting anything or anything like that because you guys had responded with empathy in the past, I'm comfortable to just tell you (Stephanie, interview 2).

Everything happened in one year and I used that often and I found it very, and [Lecturers name] in particular, was very supportive. And it was nice to wake up to a message that was soothing and nice when you had horrible things happen... I found best, well [Lecturer's name] messages were the kindest I have ever had (Stephanie, focus group 2)

The ECE student teacher participants identified the one-to-one space (a virtual private communication space between lecturer and ECE student teacher) in the online learning environment as an important digital technology for lecturers to be able to convey empathy. Although the one-to-one space is discussed later in the chapter in relation to how digital technologies enable human connections, it is included in this section too as empathy is the primary topic. Due to the confidential nature of the one-to-one space, it was used to convey personal, intimate information between lecture and ECE student teacher. For example, Olivia commented that she used the one-to-one space to talk privately with her lecturer:

If I had things with the kids and I had to say I needed an extension or I had a sick child so I might not post this week that was when I formed the professional

relationship because we got to know each other on a personal level and then I felt really comfortable connecting with them [lecturers]" (focus group 1).

The sharing of personal information in the one-to-one space facilitated feelings of reciprocity in a conversation which did not have a particular intention such as an extension request or question. This point was highlighted by Stephanie who noted that "that's why when Dad had a stroke, the first one, messaging you saying I don't need anything right now but wanting you to know because you will take it on board" (interview 2). The one-to-one space also opened avenues for lecturers to extend empathy to the ECE student teachers. Acts of empathy also recognised ECE student teacher agency in the learning process. For example, as Stephanie explained:

I mean probably a big one is like responding with warmth and what was asked for. I mean I was just trying to figure out how to do discussions and [Lecturer's name] were like "just don't do them" I had already done the readings but I just couldn't bring myself to sit there and to type at that time and I know from others, like [Lecturer's name], who was the same kind of thing trying to manage things but then having the response coming back "in your own time" not having to specify I will be fine in a week. I just thought it came across as a lot warmer (interview 2)

The findings indicate that although there was a feeling of empathy and concern from lecturer to ECE student teacher participants in the programme, this was not bidirectional, and the ECE student teacher participants found it difficult to reciprocate the emotion. For example, in response to restructuring within the university which significantly impacted on lecturers in the programme during the research period for this study, the ECE student teacher participants in their semi-structured interviews indicated their wish to show empathy to their lecturers but were thwarted as they could not find a medium to do so in the online learning environment. This is illustrated by Caroline and Aisha who stated:

I've been through restructuring a couple of times myself and I know how awful it is and how it lingers... people are unsettled for a long time...at least with your students on campus the perceptive ones might be "what's happening and how are you?" (Caroline Interview 2)

We wanted to express how we are feeling but didn't know how to get hold of you... we are all really worried – how is [lecturer's name]?" (Aisha interview2)

4.3.2 Informal communication between lecturers and ECE student teacher participants

The second of the four themes, which emerged from the data, was that ECE student teacher participants identified that opportunities for informal communication with their lecturers facilitated a sense of a human connection with them. The analysis of the data showed that from the ECE

student teacher participants' perspectives, two aspects of informal communication were pivotal in nurturing a human connection. The two aspects were informal language and the availability of informal times and spaces. Each aspect is now presented in order.

4.3.2.1 Informal language

The ECE student teacher participants expressed a clear view that informal, casual conversation which they categorised as 'chat' was important in nurturing a human connection with their lecturers. This is evident as six ECE student teacher participants referred specifically to the term 'chat' in either their individual semi-structured interviews or during their focus group when describing features that enabled a connection with their lecturers. A clear narrative from the ECE student teacher participants was that chat was perceived as a style of language that was social and emotional in manner. Therefore, by its nature, "chat" embodied a sense of humanness. Essentially, 'chat' enabled a human connection between ECE student teacher participants and lecturers by providing an opportunity for social and emotional communication. For example, when describing why chat was important three ECE student teacher participants noted that:

It is important to me because it is social - it is not online social life - it's personal social life (Zhiyu, interview 2)

Social, relationships it's you chat with people that you are friends with, or that you get along with (Stephanie, interview 2)

You know - the ability to talk. You know with emotions for me that feels like being human" (Aisha, interview 1)

For Stephanie and Caroline, 'chat' further enabled them to experience their lecturers as human to them, as lecturers conveyed through their chatty language characteristics such as approachability, humour and friendliness. For example, Caroline stated that "maybe the chatty for me means, oh she is human, and I suppose for me it means...approachable, friendly and probably down to earth, sort of a practical response" (interview 2).

Stephanie noted that lecturer's purposeful engagement in chat opportunities could be a pedagogical strategy for lecturers who might ordinarily find it a challenge to connect with ECE student teachers. Stephanie explained her point by saying that chat "makes people seem more human and supports that approachability aspect and it would help for people who maybe aren't naturally so open, humorous and approachable by nature. It helps it by design rather" (focus group 2).

Informal language also enabled lecturers to show their different personalities which participants appreciated. This was highlighted by Stephanie who, when thinking about features that supported

human connections in the online learning environment, recalled one lecturer sharing their hobby of collecting rubber ducks. Stephanie commented that “you know it is the stuff like that... that kind of personality coming through” (interview 1). Two ECE student teacher participants in their individual semi-structured interviews explained how they perceived that their lecturers conveyed their individual personalities through their use of greetings. The greetings tended to be informal in tone, specific to lecturers and consequently portrayed lecturers’ personalities. Amy noted that “The different greetings that different lecturers use, because you do all have your own personalities. The different greetings, the way you do it, the structure – it reminds that there is someone human on the other end” (Amy, interview 1).

Informality in language was also evident in unedited audio and video recordings undertaken by lecturers and embedded in Moodle. Although the participants’ perceptions of how digital technologies enable or constrain human connections are presented later in the chapter, this point is included in this section as it fits well with a perceived sense of lecturer informal presence facilitated by language. An informal presence was nurtured when lecturers used filler words to give themselves time to think and when they were not perfect in their delivery of a message. An informal presence which portrays not being perfect’ can also be associated with the idea of a lecturer being fallible. For participants, the unedited recordings provided informal opportunities to engage with their lecturers, as one participant explained:

So, there was sometimes over the year where the academic language felt very rehearsed, some of the voice-files, it felt very perfect, and that stuff sends me to sleep...Whereas to be human is to say “hmmm” to say “ahhh’ to kind of backtrack and leap forward and not be perfect (Stephanie, focus group 2).

A different perspective on lecturers’ language usage was voiced by two ECE student teacher participants who highlighted that the use of formal, academic language by lecturers created barriers and caused a feeling of distance which undermined human connection. This feeling can be attributed to the use of formal, academic language as indicating a hierarchical distance between lecturer and students in which the lecturer holds the power and the students are subordinates. For example, Stephanie described her feelings about the impact of the use of formal, academic language:

The language that she [Lecturer’s name] used was highly academic - I was OK with that- it’s creating barriers for people who did their bachelor’s years ago, and they just want to teach. It’s very stuffy language and it made her appear kind of you know typical...has no real world... Kind of puts you on the defensive to begin with (interview 2)

In a similar vein, Amy shared that although she understood what was being said and the information shared by her lecturer, the use of formal language created a barrier to her feeling a human connection. This is illustrated when she commented in regard to her lecturers that “those that perhaps have a bit more academic speak - I still understand them - but it is harder to make those [human] connections” (interview 2)

4.3.2.2 Informal times and spaces for communication

The ECE student teacher participants agreed that it was not just the language of chat that was important in supporting a human connection between themselves and their lecturers, but also the opportunities for informal chat times. In the online teacher education programme, where the majority of online chat was lecturer driven and captured asynchronously by audio, video, or written communication, participants lamented lost moments for casual, reciprocal, spontaneous chat. For example, Caroline shared that

That is what we miss out of online and we don't have those informal anecdotal connections that you have when you are on campus, that's what I have found very hard about the online discussions is that there is not really the opportunity to go " Oh what do you mean about that or I think this" and actually they are a lot more formal and stilted than being in a tutorial. I think too maybe, well I can't generalise really (Caroline, interview 2)

Other ECE student teacher participants envisaged how having moments of unscheduled opportunities for reciprocal chat could support the human connection with their lecturers in the online learning environment. The ECE student teacher participants drew on their previous experiences to share examples of naturally occurring moments of chat in their everyday lives which nurtured a social and emotional connection through use of language. The ECE student teacher participants' comments are exemplified in the following views expressed in individual interviews and focus groups:

But maybe, maybe it is because if I see you outside here after a class and I would say just have a little chit chat with you - it is a connection but this online programme it is not seeing you just to have a random talk (Aisha, interview 2)

In the workplace you might be 'oh the traffic was awful this morning', I haven't caught my own breath yet as I walk in the door and even if you are not really sharing that you have had a bad morning you might not share that or you might just say it has been a really tough morning (Amy, focus group 2)

In many organisations you can be sitting having lunch and end of having lunch with the CEO as they are in the kitchen too. You don't chat about work; you don't chat about how difficult this is or what you thought about this or her or whatever. You

talk about, you know, what are you doing on the weekend? Having a game of soccer? Social kitchen catch ups (Stephanie, focus group 2)

If I know that you are in the office and I could say hi [Lecturer's name] and just come in that's human, that's very human but when I can't just send you an email to say, "Hi [Lecturer's name]," I probably wouldn't do it! Do [Lecturer's name] have coffee. How was [Lecturer's name] day? Something stops me but if I come here as a student if I see [Lecturer's name] here, I will probably come and chat - it's just a cultural thing you actually have a very close relationship with the lecturers as well (Aisha, interview 2)

4.3.3 Lecturer feedback and feedforward

There was a consensus among six of the ECE student teacher participants that receiving feedback and feedforward from their lecturers was valuable in nurturing a human connection with them. However, participants identified diverse reasons for this. The reasons provided by the participants were: timely feedback, affirming formative feedback, and personalised feedback. Each theme is now presented in order.

4.3.3.1 Timely feedback

Five of the ECE student teacher participants felt that timely responses from their lecturers supported a human connection with them. The reason for the feeling varied between the participants. For Olivia, timely responses engendered a sense of trust with her lecturer. This was evident in her comment "I think that you have that instant connection online...I sent [Lecturer's name] a question today about our assignment and I thought you'll be back to me soon...not that there is any rush but I knew I would hear back from her and literally I went to pick the kids up from school, came back and there was a message in reply" (interview 2). Whereas for Aisha, timely responses created a feeling of clarity in her study, "I really liked [Lecturer's name] approach in the first semester as he was very quick to respond to emails... there were no confusions involved" (focus group 1). For two other participants felt that timely feedback showed that their lecturers cared about them. This point is captured by Jing who commented:

To show that you care ...you did your job really well as a teacher, as someone to pass on knowledge, someone who can check our discussions, you give some tips, questions to make us think about the topic (Jing, interview 2)

Conversely, if lecturers did not respond in a timely way the ECE student teacher participants felt frustrated and were upset. This point is illustrated by Zhiyu who commented "If I ask a question now, I might want to know the answer soon but if one week passed and I still haven't got the answer I will be really upset" (interview 2). The delay in response by the lecturers caused a disruption to the perceived human connection and a negative reaction.

4.3.3.2 Affirming formative feedback-being on the right track

For Aisha, Min and Amy receiving affirming formative feedback that they were on topic with either assignments or content in the online conversations was perceived as a valuable human connection with their lecturer, as it provided reassurance. The feedback from the lecturers responded to the participants' requests for the lecturers to read their online contributions or assignments prior to submission. The affirming feedback from the lecturers provided reassurance that the participants in their own words were "on the right track" and consequently encouraged the participants with their study (Amy, Min, and Aisha).

The sense of reassurance felt by the participants was engendered as they felt that their lecturers recognised and responded to their individual learning needs and sought to quell uncertainty and worry. The participants' reasons for why the affirming feedback provided reassurance varied according to their individual prior experiences and circumstances. For example, Amy found that affirming feedback back helped build her confidence having been away from study for a period of time:

I could pre-send assessments to Lecturer 1, first especially in those early days as I was getting back into study and could check that I was on the right track before I started submitting for the serious ones on the due date. So, I found that lecturer very personable and very good (Amy, focus group 2)

Aisha, in relation to her contributions in the online conversations, sought affirmation and reassurance that she was understanding the topic and was "getting it right."

I'm not, sometimes I feel like OK do I know that topic? Am I on the right track? Am I discussing it right? So, the lecturer I was talking about before about putting the comments straight away, that's good, that's been like "OK what I have said in the post is right". That I have found to be good. (Aisha, interview 2)

For Aisha, reassurance that she was "Getting it right" was especially important due to her prior experiences of professional relationships with her teachers. It seemed that when Aisha's lecturer provided affirming feedback in the online conversations, it not only provided reassurance but also provided a sense of reciprocity and opportunity for Aisha to actively seek feedback. For example, in one of her courses where the lecturer regularly provided feedback in the online conversations, Aisha sought feedback to ensure she was on the right track by asking for reassurance:

Any one please correct me if I am wrong (Moodle TEPS751)

[Lecturer 2], I would really like to know what you think about this (Moodle TEPS759)

[Lecturer 2], are we on the right track with 'dispositional milieu'? (Moodle TEPS759)

Also, [Lecturer 2] I really appreciate the way you gave us prompts and feedback on the discussion space. It motivated me to do the best for my contributions and the knowledge of you reading all our posts on the same day gave me the privilege of asking my doubts on the same day. I really appreciate the contribution you made to my learning journey and sharing your wisdom (Moodle TEPS759)

Finally, Min found that as an international student with English as an additional language, the affirming feedback gave her confidence and scaffolding in overcoming language difficulties to continue with her assignments. She explained:

I had a habit of, because English is not my first language, I used to post my draft version of the assignment to him to confirm if I was on the right track. He replied to me yes, ok yes, I think you're on the right track but here are a few points you need to consider. I think this quite helpful (Min interview 1)

Due to the language difficulties and problems, we always want to send the maybe just the introduction part to lecturers to have a look to see if you are on the right track. They [lecturers] are helpful - even though they just have a glance they will say " yes, you are on the right track". We will build up more confidence to continue. I think that is good (Min, interview 1)

4.3.3.3 Personalised in-text feedback in marked assignments

The ECE student teacher participants indicated that personalised in-text feedback provided by lecturers while marking their assignments was a significant factor in experiencing a human connection with their lecturer. However, the participants identified different reasons for this which are now explained. Five of the nine participants expressed that when lecturers personalised the assignment in-text feedback by mentioning them by name it provided a sense of intimacy and warmth. This is demonstrated by the following examples:

Jing, I think you have an understanding of the assignment but then I think you should do ..." Like they make reference to you by name (Jing, interview 2)

Actually, maybe because they are few males in our class they know my name - it is quite warm, it makes me feel warm because they know my name...It really made me feel connected to them and feel better and feel more free to talk with them about my issues (Zhiyu, interview 2)

Jing, Zhiyu, and Stephanie found that the written in-text feedback personalised through lecturers being specific and contextual in response to their individual assignments nurtured a human connection. For Jing, written in-text comments that directly responded to specific lines in her

assignments made it seem that her lecturer was directly talking with her alone which supported a human connection through a sense of intimacy.

I think I have a personal relationship with him because of the comments we got not like you're talking to everybody (Jing, interview 1)

In her second semi-structured interview, Jing expanded on her perceived difference between receiving a block of written feedback at the end of an assignment in compared to receiving in-text written commentary throughout her assignments. For Jing, the act of the lecturer providing contextual in-text comments indicated to her that they were reading and actively present in her work while providing dedicated feedback on how to improve.

I think maybe the feedback from assignments. A lot of the lecturers, they give like a final feedback - they wrote like a paragraph talking about what they think you are doing good and then you are doing not that good that area that you missed a lot of marks but other lecturers will do like comments so like you know that he or she is reading your assignment line by line and they will comment on this is really good sentence or maybe you can expand on this points (Jing, interview 2)

Zhiyu found in-text formative feedback useful as it opened opportunities for dialogue with his lecturer that informed his understanding of different cultural professional language conventions. The written formative feedback was not directly related to the topic of the assignment or part of the marking rubric, but Zhiyu appreciated the effort of his lecturer in developing his cultural understanding and responding to his individual circumstances.

Actually, how lecturers' comment on our work is quite important. Instead of just giving us a mark, if they can give us more detailed comments on - maybe on just small things - it really helps us- especially for me as an international student, there are ... special terms that I don't know. For example, at the beginning of the programme I was told by a lecturer that we should refer to our children as "learners", we don't call them students. Well, that is really new to me because in China we only use the word students. So that is very good - nice to know and this is kind of a small thing, but it really means a lot to us (Zhiyu, interview 2)

It was not just the personalised content of the assignment in-text feedback but also the perceived tone of the feedback that was significant in nurturing a human connection between the lecturer and the ECE student teacher participants. For example, when lecturers provided written feedback that was felt to be humorous and aligned with the personal perspective of the ECE student teacher participants there was a sense of a human connection. One participant explained:

He [Lecturer 1] was double marking, and I had great comments throughout. There would just be that dry kind of sense of humour - I remember the very first

assignment that he marked - it must have been the first paper and I was struggling with a student that I saw as racist and he just put in like a comment on about the national government in New Zealand and I thought yes I agree with that - it's not really anything to do with my assignment but it was funny in that way (Stephanie, interview 2)

Conversely, for Amy if she perceived the written in-text comments to be not friendly or constructive in tone the feedback was a negative, unpleasant experience.

Thinking about the feedback I have been given, there has only been one time where I have felt a bit " fuff" about the response I've been given, where the lecturer made the comment " I didn't ask for your opinion" and I thought " oh I thought that was what we were doing here - giving our opinion". So there has only been that once where I thought oh well " what you are giving back to me is not what I thought you were expecting of me" So there is only once where I have felt a conflict in a remark where it didn't make me angry but I just felt yuk about it (Amy, interview 2)

One ECE student teacher participant acknowledged that while he found the written in-text feedback useful he was aware that not all his peers valued it and looked only at the end mark. For example, Zhiyu commented that:

I think short feedback is quite useful too, but it all depends on different people. I really like constructive advice and comments because that way I can improve, next time I can do the right thing. But I have heard someone talking about how they just hate too many comments, and they just want the grade (Zhiyu, interview 2)

Amy cautioned that it was important that the lecturer with whom she had developed a personal professional relationship in the paper provided the written in-text feedback rather than people she did not know. Amy attributed this feeling to a lack of consistency and a depersonalised relationship that caused a sense of distance. This is evident when she stated:

When it was someone else that marked one of my assignments that we did with [Lecturer 4] last semester. It was a different person that marked it and I was like " Oh! this is someone different" and I guess you do notice when things are different without having - with the consistency you expect from your lecturers and the relationship you have and so when someone else comes in you do notice the difference. So, I guess from noticing the difference there must be something that is the same that I do get the feedback from. So, in a deficit model, it's worse when it is different (Amy, interview 2)

4.3.3.4 Perception of lecturers taking an interest via feedback

Four of the nine ECE student teacher participants noted that when lecturers provided feedback and feedforward by contributing in the AOD forums it was valuable in supporting a human connection.

The ECE student teacher participants attributed their sense of a human connection with their

lecturers to the feeling that when lecturers participated in the AOD forums they were taking an interest in the participants. Taking an interest was felt to be a human connection because as Stephanie commented “being human is having an interest in the person on the other side of the computer” (interview 1).

The ECE student teacher participants felt that lecturers demonstrated their interest when they provided feedback in the AOD forums that was contextual as it signalled to the participants that their lecturers were actively reading and present when engaging with their contributions. Feedback in the online conversations was also perceived by the participants as lecturers being responsive to and supportive of their academic growth. The following quotes characterise the participants’ feelings:

I think there are some lecturers they tend to join our discussions in the middle of the week - that makes us feel that they are really looking at our discussions and they join us, and it feels more connected (Zhiyu, interview 1)

I'll say like for one lecturer I know that she reads all the posts, as she will make a comment, like if someone had made a mistake she will say " Ok maybe you need to go back and read this and this" so for that lecturer when I write a post I really make sure as I know she is going to read everything - I feel like she is watching me like actually watching me and reading every single sentence that you write and discuss cos on and off she comes in and puts in like two lines "Ok you need to focus on this, read that. So, I find that academically very helpful (Aisha, interview 2)

For some lecturers like [Lecturer /] I think she took a very special initiative to get back to you if you have written a point (in discussions) or ask you to think in a different way and I always know that [lecturer’s name]is going to read every contribution or every post that I am going to make (Aisha, focus group 1)

To show that you care ...you did your job really well as a teacher, as someone to pass on knowledge, someone who can check our discussions, you give some tips, questions to make us think about the topic (Jing, interview 2)

What I really enjoyed about [lecturer’s name] was in the weekly discussions she contributed to our weekly chats and was present in there and none of the other lecturers would comment and I found that quote good as sometimes I didn’t have enough to feed off from other people to go somewhere else or extend. So, I found that really helped with that relationship with [lecturer’s name] because she was present in those conversations where everyone could see (Stephanie, focus group 2)

When lecturers did not participate in the AOD forums, it was still perceived by the ECE student teacher participants that they had a presence and were taking an interest in the participants. This was because the lecturers made contextual references to the topics discussed in the AODs in feedback via voice files and video clips which conveyed to the ECE student teacher participants that their lecturers were reading and taking an interest in the AOD forums. However, this form of presence was likened by some of the ECE student teacher participants to “being watched” or “being

monitored” which indicated more of a presence of surveillance rather than that of co-construction. A situation that Amy noted “felt a bit odd but I’m sure we will get used to it in time” (interview 1).

Stephanie and Jing noted that an important element that supported a human connection in the reciprocal relationships between ECE student teacher participants and lecturers, was for lecturers to initiate social wellbeing check in messages via the learning management system. For example, participants commented:

It is nice to have a relationship where you are going to have someone else sort of like saying “hey it is a really hard slog “ and I think you did it along with a couple of other lecturers “ you know you are so close you have done all this work and they reminded us of what we had achieved rather than you’ve got so much more to go (Stephanie, focus group 2)

Yes and maybe this taking initiative -what I feel - how I feel about you reaching out to us because sometimes you will send a message to us as a community saying that oh for example " I know that you are having a difficult time, a busy week, but then it's almost the end and we can do it" It's just the encouragement I think that will make a difference too. But then nobody asked you to do that - you just do it, and you are taking initiative, and you are reaching out to people rather than instead of waiting for people to reach out, for people to message you asking questions (Jing, interview 2)

4.3.4 ECE student teachers’ sense of community

Core to ECE student teacher participants’ perceptions of human connections with their lecturers was the construct of an online community of learners. From the ECE student teacher participant perspective, the construct of a community of learners mattered in different ways in nurturing a human connection. The aspects of a community of learners which were felt to be helpful in fostering a human connection were: lecturers deliberately cultivating professional relationships; reciprocal professional relationships; peer support; and valuing difference. Each aspect is now presented in order.

4.3.4.1 Lecturers deliberately developing professional relationships

For three of the nine ECE student teacher participants, their perception that lecturers were making a deliberate endeavour to foster professional relationships with them engendered a human connection. This was because it felt that their lecturers were making an effort. The participants recognised that, because their lecturers were qualified teachers as well as lecturers, there was a deliberate pedagogical decision to nurture professional relationships. For example, Stephanie compared her experience in a non-teaching qualification with her present study.

Lecturers that have not had any teacher training, I would have said no. So, yeah everyone who is a researcher that is but then the experience of this has been so different. They have had the training (Stephanie, interview 1)

For Zhiyu and Stephanie, their lecturers' pedagogical decision to develop a professional relationship with them was perceived as their lecturers making an effort and valuing it as a human connection.

I can see all the lecturers are trying very hard to promote the relationships between lecturers and us (Zhiyu, interview 2)

No, it's still again closer than my other degrees ...it is totally different, but I'd say that more effort is made in this course to bridge the connection (Stephanie, interview 2)

4.3.4.2 Reciprocal professional relationships

The ECE student teacher participants felt that a sense of reciprocity within their professional relationships was an important factor in nurturing a human connection with their lecturers in the online learning environment.

For Olivia, Caroline and Stephanie the sense of a reciprocal relationship with their lecturer was a positive human connection where there was a feeling of an equal, non-hierarchical partnership which situated learning as a mutual endeavour. These points are highlighted in the following comments:

So, for me it starts to go more into a mental space in my mind where I distinguish teacher mentor from mentor. A mentor will share more back and forth with you and is a lot closer in guidance than what I think of as a teacher (Stephanie, interview 1).

The first thing that comes to mind is an equal sign. I feel like it is really equal, it's really shared.... It just feels really equal. And then I know that the other students as well, we're all in the same boat together and its equal workloads... I feel it is a lot more equal. And it's not necessarily on a line if I had to draw it, it would be different circles connected together - equal sizes connected together and all interwoven (Olivia, interview 1)

I think I have felt more equal, it feels like a partnership, it doesn't feel like there's a hierarchy. I know my lecturers well and I feel like they are really approachable and that there is a real partnership (Olivia, interview 2)

I would have to say this term it's probably been more relaxed and approachable and certainly I would say the feeling is that you are in a mutual learning kind of situation which is nice (Caroline, interview 2)

Jing and Olivia explained how their lecturers demonstrated reciprocal professional relationships in their use of digital technologies. The digital technologies enabled the lecturers to be present while undertaking work as co-learners in the learning community. These points are captured in the following statements:

I love that the lecturers so far have been uploading voice-files that we are connected with, because I know that they are doing work. It just feels really equal (Olivia, interview 1)

One of the lecturers, I think [Lecturer's name] does the same thing, like [Lecturer 4] reads our discussions online on Moodle, but [Lecturer's name] also adds their comments. [Lecturer's name] will, for example, post like an entry of their own opinions of their own thinking about the topic that they have asked us about - so like they sort of put themselves as a student and doing the contributions together with us (Jing, interview 2)

For Caroline and Zhiyu, a sense of reciprocity with their lecturers was further engendered when their lecturers were explicit that they were learners too, either through sharing research they were undertaking or by joining in with the online conversation forums.

I do love knowing that the lecturers are learning themselves. So, when they talk about the papers they are doing, or the research they are doing or something like that to me it's like yeah this doesn't just have to stop at the end of two years or whatever it can go on learning in any form. That is inspiring (Caroline, interview 1)

So, it is quite helpful when we feel that we are in this programme, we are learning together with - we are learning from the lecturers (Zhiyu, interview 2)

However, for three ECE student teacher participants, the experience of reciprocity within the online professional relationships with their lecturers was different and they did not feel a human connection with their lecturers. These three ECE student teacher participants reported that they felt the onus rested with themselves to initiate contact with their lecturers, usually specifically only when they needed help. So, although the online professional relationships were reciprocal to a degree, they were very much reliant on the ECE student teacher participants seeking help rather than a shared mutual responsibility with their lecturer. The following comments characterise the sentiments of these participants:

I am just on the edge of a bridge and there are handrails on both sides. Umm so and I know that just on this side and probably on here there is. In the beginning I was there and now there are definitely handrails for me to hold as I cross the bridge. There are a lot of people waiting here and they are my lecturers. And if in case I have trouble I am sure they will come there (middle) and get me,

but they are standing here, they do not just come around and say "hello Aisha" they are not going to do that. But if I need help, I will come into the middle of the bridge otherwise they are just waiting there. Waiting for me to come down across the bridge and join the group. (Aisha, interview 2)

Kind of a telephone relationship. Like you can call them if you need to but otherwise, they are not really part of your life. I would have a picture of a phone (Joanna, interview 1)

It is a line, a straight line, talk to each other, yeah, it makes the things go smoothly - or something like that. A straight line... No, just the same line – same (Min, interview 2)

For Aisha, Min, and Joanna, these feelings fostered a feeling of distance from their lecturers and consequently disrupted their human connection with their lecturers, as they felt isolated. This is captured by Aisha who commented "I feel like my lecturers are far away. I know that I can always contact them via email or by phone call I still feel far away (Aisha, interview 1)

4.3.4.2 Peer support

Although the focus of this research is the human connection in online professional relationships between ECE student teacher participants and lecturers, professional relationships in an online community of learners cannot be considered without including peer-to-peer professional relationships. This is because peer professional relationships are integral to the concept of an online community of learners and provide further insights into the human connections in professional relationships that are valued by the ECE student teacher participants. The ECE student teacher participants asserted that they felt a human connection within their professional relationships with peers as the professional relationships provided emotional and academic support.

In relation to emotional support, Stephanie, Caroline and Olivia noted that peer-to-peer online relationships promoted a sense of togetherness developed through shared experience:

Knowing you are not alone...I think just knowing that you are not alone – that someone else is doing this too...A bit of company really (Stephanie, focus group 2)

It's just that camaraderie, it's just that shared experience. I can tell my husband and he's like "yeah yeah yeah I know" but they actually know because they feel it too (Olivia, interview 2)

For Caroline and Olivia, the sense of others being there in the online community of learners provided external motivation for study at a time when they were not feeling engaged:

It has been for some reason a very difficult semester to be motivated and I think if I was having to go to a classroom or go to tutorials I would - it would be easier for me to be motivated than thinking " Oh I'd better turn the computer on and read this". Whereas being in a room with people who are fired up is often quite a good way of doing that. Admittedly once I turn the computer on it's not too bad and I start reading - it's just that I'm always grateful to those people who start the discussions (Caroline, interview 2)

I knew it was going to be a hard year but when you're actually in it compared to talking about it before it happens and I put a little post on saying "oh my god I'm dragging myself through this week, I'm sorry my posts aren't making any sense to anybody" and it was quite late at night and over 3 people online felt exactly the same way (Olivia, interview 2)

The emotional support of the peer-to-peer relationships was deemed particularly important by the ECE student teacher participants when they experienced challenges in study and their personal lives. As Olivia noted her professional relationships changed with her peers as the programme progressed, and her emotional needs increased:

The relationships with my teammates, the other people studying, has become more personal and less professional which is what we've all needed I think, supporting us so that has been really, really important (Olivia, interview 2)

In relation to academic support, Olivia, Amy and Jing commented that peer support was valuable for assignment preparation as it provided a space for informal affirmation, clarification and dissemination of information:

Just clarifying things to do with assignments - if someone doesn't understand something and they send a question and someone will say I didn't think that, we've just had one and I think we have an old paper outline and then a new one was uploaded and the word limit was different someone was like which one is it? and so someone confirmed, it's just that affirmation and camaraderie I think (Olivia, interview 2)

So, you all weekend I have been popping in as there are a few of us struggling with the current assignment and you know it is just that feedback where some when says " Oh how would I Reference this? " And someone has come in and said, " oh well consider doing this" It's still online but we still have a different support network as well and I guess it is more just on Facebook - yuk as much as I hate it there are quite a few people that are on it. Or we have had an extension for today's one, so people have come in and said " ...let's get a pie"(Amy, interview 2)

And for the group work for example, I know that [Lecturer's name] posted an assignment briefing, not Everybody listens to that but then people, at least one person will listen to it, and then they will just remind the other group member that this is what [Lecturer's name] wants and this is what she is talking about in this

assignment so don't forget this part, and we need to add this part (Jing, interview 2)

4.3.4.3 Valuing different perspectives

Four of the ECE student teacher participants felt that the human connections between peers and lecturers in the online conversations created an inclusive learning environment that enabled them to draw on others' perspectives. This was valued because it positively impacted their learning as it opened opportunities to gain a wider range of perspectives to inform their thinking, by challenging assumptions they may have held, and by creating an enjoyable learning environment. These points are captured in the comments below:

Olivia, I thought what you were saying about the online groups really interesting as you are right sometimes you get different students in your group that you think "oh yes they think in a way that I understand, I can get or I know that they will challenge me to think differently and that was really good (Caroline, focus group 1)

In regard to the discussions, I do like them because they are not really a discussion more of a vignette. It's not really a discussion but you do get some good ideas and perspectives that you wouldn't have thought of (Joanna, interview 1)

The topics that we are addressing are making me think about assumptions that I have made, that I didn't even realise were assumptions because I am being forced to look at other perspectives and so for me it is opening up a space for more differences to be palatable of (Joanna, interview 1)

I recognise it's a good way of learning and expanding on that learning because you are getting all of those other people's thoughts and opinions in there. I do like the smaller group approach, and that would be mixed up a little bit, because you get to hear all those other different worldviews because we have such a mix class which is great (Caroline, interview 1)

I enjoyed reading discussions every day, especially in the morning when I can have a cup of tea while watching the online discussion. I enjoy it and I learnt a lot of new knowledge from each individual. It gives me, I mean previously I didn't have that kind of feelings like that, but this time I feel impressed about the online discussion because it's totally different (Min, interview 1,)

For Aisha, the experience of the online conversations was different, and she did not value the opportunity to draw on different perspectives in the ways her peers did. This could be attributed to the nature of the AODs because for her they did not provide the reassurance and clarity that she had correctly answered the questions. Subsequently, this caused tension for her as she explained:

It is like when it comes to discussions – a lot of people discuss it in different ways, and I am just a little bit weird, and I always want to stay on the topic. I really just have to - I try not to divert - I have to stay on the topic, I have to make sure I have answered the questions and things like that (Aisha, interview 1)

So, for Aisha, it appeared that she required direct instruction from the lecturer rather than learning alongside her peers which connects to a behaviourist approach to learning rather than a socio-constructivist approach.

4.3.5 Summary

In summary, this section of the findings chapter has responded to the research sub-question: how are human connections experienced by student ECE teachers in their online professional relationships with their lecturers?

The analysis of the data showed four themes that ECE student teacher participants identified as important in nurturing a human connection with their lecturers. The key themes were: perceiving their lecturers as real people, Informal communication with their lecturers, lecturer feedback and feedforward and being a participant in an online learning community. The following section of this chapter responds to the third research sub-question: How do ECE student teachers perceive that digital technologies enable or constrain human connections with their lecturers?

4.4 Student teachers' perceptions of how digital technologies enabled or constrained human connections with their lecturers

The GradDip T ECE's online component was hosted via Moodle, an open-source learning management system (LMS). The design of each of the online course pages provided spaces for different types of interaction for lecturers and ECE student teachers. For example, a typical course page included: AOD forums; a general announcement space where messages were posted to the student teachers' email accounts, a confidential one-to-one space where lecturers and ECE student teachers could talk privately with each other, a public question and answer forum accessed by lecturers and student teachers for questions related to the course, a social cafe space designed for social interaction among all members of the course and a page set for a weekly overview which could facilitate multimedia communication. There was an expectation that lecturers teaching in the programme were present in the online space and they often recorded audio or YouTube videos which were embedded within Moodle to provide feedback/feedforward, information to augment written content or as a means of social engagement. Lecturers were required to answer student

teachers' questions within 24 hours and had a choice of whether or not they participated in the AOD forums.

In response to the third research question, this section of the findings chapter reports the participants' perceptions of how digital technologies used within the GradDipT ECE enabled or constrained human connections with their lecturers during their study. The analysis of the data were categorised into five themes: opportunities for interaction; a sense of knowing the real person; student teacher personal preferences; a sense of intimacy; and constraints of digital technologies in enabling a human connection. These themes are now presented in order.

4.4.1 Opportunities for interaction

The ECE student teacher participants asserted that the opportunity for interaction afforded by Moodle, the LMS, was a key factor in nurturing a human connection in their online professional relationships with their lecturers. This was explained by Stephanie who commented that a non-interactive learning management system would not feel human because it would

Be a robot, you post the material and then you bugger off for the week and then you come back. No voice-file, no personal interaction, no introduction, no need for you guys to think we need to know your name or anything like that. That would be the not human (interview 1)

The interaction mediated by Moodle was perceived by the ECE student teacher participants as very formal, siloed and focussed on learning. For example, five of the ECE student teacher participants all used the term "formal" to describe how they felt when interacting in Moodle. The feeling of formality was attributed to Moodle being thought of as a space for purely academic interaction as it was perceived as "a learning environment, university environment, we talk about our studies, our learning, our books, our readings well less about our lives" (Zhiyu, interview 2). The perception of the formal learning environment was further endorsed by the perception that anything written was assessed, needed to be formal in tone and had to stay focussed on one topic (Aisha, interview 2; Stephanie, interview 2). Despite the view that the LMS was primarily about formal interactions with their lecturers, one participant, Amy, indicated that it was possible to establish human connections there with their lecturers. Amy explained her perspective by stating that Moodle provided a good platform for enabling a human connection with her lecturers via the various interaction spaces available. This is illustrated when she noted:

So, I think Moodle is sufficient for being the University's platform for lecturers to do their job. I think there is everything in there for you to do it and have those connections without expecting more (interview 2)

While Moodle was perceived as being primarily about formal interaction, the ECE student teacher participants identified a number of spaces that they found particularly helpful in nurturing a human connection with their lecturers. These spaces were: the asynchronous online discussion forums, the question-and-answer space, the news forum spaces and the one-to-one spaces. The ECE student teacher participants felt that having a range of spaces for interaction afforded diverse opportunities to connect with lecturers. The diversity of the affordances provided by the different spaces emphasised to the ECE student teacher participants that they were interacting with a human being. This was because the lecturer contributions were contextual and related to real time activities. Amy further explained her viewpoint by adding:

I like the question-and-answer space in terms of Moodle. Yes, OK in the discussion forum we don't usually hear our lecturers' voices and that is OK. But there are still places to access those people like the news forums where lecturers give weekly updates of what is happening it just reminds you that it is not all computer, tick the box it is all going to happen, it gives you that feeling that there really is a person on the other line (interview 2)

Although appreciative of the different asynchronous opportunities for interaction facilitated by Moodle, six of the ECE student teacher participants expressed that scheduled synchronous meetings with their groups and lecturers would further enhance human connections. Drawing from their previous experiences of synchronous meetings, ECE student teacher participants suggested different media such as Skype, WebEx and Facebook Messenger as potential platforms to host regular online meetings or drop-in sessions. It was felt by the ECE student teacher participants that synchronous meetings could provide optional, informal, unassessed opportunities for social and academic purposes. It was felt that the joining of the social and academic interactions in one space could provide a holistic interaction which contrasted with the more siloed interaction afforded by the LMS. Amy focussed more on the social aspects and commented that synchronous opportunities could provide a space "to see how everything is going without being assessed" (focus group 2). Whereas for Aisha and Min they thought that the meetings could support their academic needs through real time communication with their lecturer, as they could enhance their understanding of what their lecturers thought about topics. Min also asserted that connecting with her lecturer in real time via a communication platform could have provided a bi-directional communication in which she would feel comfortable to speak. She explained:

I can see your expression, and it makes me, I have the intention to speak more and express myself. Maybe we can make little notes on things we would like to know. We can speak and ask one question per person. For me that would be wonderful (Min, interview 2)

For other ECE student teacher participants, the synchronous meetings, or 'drop-in sessions' could provide both social and academic support. For example, Stephanie suggested regular live chat hours so that "if anyone has a query and you are online from 9 until 10 you can log in and just shoot you [the lecturer] a quick question" (interview 2). Stephanie further explained that the benefits of quick drop-in session would enable student teachers to ask questions which did not feel important enough to log through Moodle. Stephanie felt that this would help student teachers feel that they were not 'pestering lecturers' when asking questions whose answers helped with understanding in the online learning environment.

4.4.2 Digital technologies that enabled lecturers to be perceived as real people in the online learning space

There was a consensus among six of the ECE student teacher participants that the affordances of recorded video clips enabled them to experience their lecturers as real people. The ECE student teacher participants valued the affordance that video clips provided to feel that they were meeting their lecturers face-to-face, as they captured human traits usually inherent in face-to-face interactions. For example, Olivia stated "I think the YouTube, the video files are brilliant, you are seeing them as people" (interview 2). For Aisha, the experience was similar in that she noted "I always liked the videos. I felt like it was the only way I could properly see the lecturer face-to-face" (interview 1). For these six participants, "seeing" their lecturers as real people included their being able to see their lecturer's facial expression, body language and personal choices such as what they were wearing. These points were illustrated by Aisha who commented "You can see them; I can see their clothes" (interview 2) and Stephanie who noted that "you can see the body language, so I see that I understand what you are saying and you do that hand thing and facial expression as well" (interview 2). From the six ECE student teacher participants' perspective, the affordances of video clips were more effective in creating a sense of knowing the real person than other digital media such as voice files. As Aisha explains "Voice-files are great, but you still need to see them. It's hard. YouTube clips are good - You tube clips are close to that whole human part" (interview 1). However, Amy cautioned that the 'realness' of a person captured via video clip might not be an authentic representation of themselves. This is because the way in which someone chooses to portray themselves online may differ from how they would be present in real life. Amy illustrated this point by commenting that:

I have put on a bit of foundation that I don't usually wear today because those computer screens are very nasty, and you don't want to be looking at how tired I am. To a certain degree computers can give a bit of a false image sometimes of how you want to portray (interview 2)

Another affordance of video clips, identified by the ECE student teacher participants, was that video clips enabled live, spontaneous events to be captured (such as the phone ringing or people coming into the room during their recording, as mentioned earlier (Olivia interview 1). Although the ECE student teacher participants accessed the video clips asynchronously, they still conveyed a sense of real life happening in the moment when they accessed the video clips which promoted feelings of intimacy. The notion of capturing live events in the video recordings included two or more lecturers talking together in the video which in the words of Stephanie “added a warmth” (interview 2) as lecturers could bounce ideas off each other and present themselves in an informal manner.

On the other hand, two ECE student teacher participants preferred voice-files rather than video clips, as an opportunity to perceive their lecturers as real people. Min noted that it was the prosody of the way lecturers spoke that nurtured this connection. She said:

They always speak naturally and they speak friendly, it is easy to get into their hearts and their minds...Rhythm and tone while they are speaking an informal greeting (Min, interview 2)

Whereas Amy relished the opportunity not to have to look at a computer screen and was able to connect her prior experiences of meeting her lecturers face-to-face with the person in the audio clips who felt real. She said:

Reading is hard going all the time and so are having the video clips as you are looking at a computer screen. I’m finding hard all the time so the fact I can put on a voice file and close my eyes and listen - I really enjoy that. And once again it’s that voice, I’ve met you’ I know that voice and I can tune in (Amy, interview 1)

The ECE student teacher participants explained how they felt other digital media enabled lecturers to share aspects of themselves which allowed them to be perceived as real people. For example, Stephanie noted that images chosen by the lecturer to share rather than the generic University staff photographs revealed the lecturer’s personality and it was also an avenue to experience the lecturer’s sense of humour. For Zhiyu, the sharing of images of events happening to the lecturer provided an opportunity for him to feel the human connection with his lecturers as they shared aspects of their lives. He noted:

Yes, for example, maybe some lecturers have something happening around them and they share it with photographs, it can help us make them feel closer to them (Zhiyu, interview 1)

4.4.3 Student teacher personal preferences of digital technologies used by their lecturers for sharing knowledge

The ECE student teacher participants identified a range of digital technologies which they preferred to access knowledge shared by their lecturers. The sharing of lecturers' knowledge was identified earlier in the chapter as engendering a human connection, so it is important to consider which digital technologies the participants found most effective for the purpose. This varied for the participants.

Two ECE student teacher participants identified that for them audio files were preferable to video clips as they created opportunities to access their lecturers via digital platforms in a way that suited their personal preferences. Both Stephanie and Caroline found that listening to a voice-file enabled them to multitask as opposed to if they were watching a video-file whose visual nature made them compelled to watch the person on the screen. This preference is expressed in the following comments:

I don't know. It just seems easier to follow that on a voice-file and sometimes it could be because I'm listening to the voice-file while looking at the work that I need to do - whereas a video I have to go a hundred percent which I know multitasking is great for concentration but we all do it (Stephanie, interview 1)

So, when the voice link or whatever goes well it's a good way of connecting and I almost prefer video - no actually I prefer just the sound file...I don't have a lot of patience with video and I'm kind of going OK how long is it maybe I'll just listen another day. And I don't know if it's an attention span thing. For example, my phone's been binging a couple of times and I'm distracted with that - whether it's part of all the information that we kind of expect. Whereas, if I have a voice-file I can be doodling on paper and I listen to it whereas if I'm trying to watch somebody I can't. If there is a video, I feel like I have to watch it (Caroline, interview 1)

Interestingly, Caroline changed her mind as the programme progressed to preferring watching video clips to support her learning as they limited distractions for her provided a focus for her concentration. Caroline's realisation of what worked well to support her learning contrasted with her social enjoyment of listening to the radio. This is evident in her comment:

I don't do so well with the voice-file on its own...Just for some reason I don't know why because I love listening to National radio podcasts and things but maybe there is not the pressure involved in a Podcast that means I have to get something out of it - as soon as there is the pressure of the learning thing I'm like "ooooo now I have to concentrate" hmm whereas somehow when there is a person's face on screen and a video it's more I've got something to watch maybe (Caroline, Interview 2)

Three of the ECE student teacher participants found that watching their lecturers' faces via the video-clips enabled them to focus better on the topic. However, the reasons given for this preference varied. For example, for Min, watching the video-clips provided insights into how their lecturers thought about topics. She explained:

I think it is best to provide us YouTube clips or video-clips and then we can visualise what you said and what you think about that. But if you post a voicemail, we don't know how you think. That's just my personal view (Min, interview 1)

For Caroline, seeing the lecturers' face in the video-clips rather than hearing an audio-clip prompted her to feel more relaxed and less pressured in engaging with her learning.

For Stephanie, seeing the lecturer's face kept her focussed and stopped her from multitasking. This is evident when she stated that "Maybe it's because with video you are looking at someone and you are 100% focussed you can't go off into another tab and check something else" (interview 2). Three of the ECE student teacher participants identified that digital technologies that afforded the sharing of text enabled them to experience a human connection with their lecturer. As Stephanie explained:

At the end of the day, it's kind of just - you could easily get by on what you write. If you can express yourself in the written word then there is no reason to, or it is not necessary to, have amazing technology if you written a paragraph that is really authentic, really genuine (Stephanie, interview 1)

Two of the ECE student teachers, Stephanie and Aisha, preferred written communication if the content was relevant to their learning, such as summaries and assignment briefings. As Aisha noted "The thing with the academic content, I always like to read" (Aisha interview 2). For Stephanie, it was more about wanting to be able to access information in a written form when she could not access the audio files due to connectivity problems:

For assignment briefings I get frustrated when there is important information ... to access voice-files, to get some key assignment information that wasn't available in written form, and I was sitting in the Pacific panicking...That information wasn't available and that is what gets me (Stephanie, interview 2)

4.4.4 Constraints of the digital technologies in nurturing a human connection in the online learning space

One ECE student teacher participant shared that she found that the video files did not help forge the human connection with the online lecturer. For Jing, the video-files were a place to gain information and check that what she was doing was correct. This is demonstrated when she shared that "I watch a video - this may sound bad - but I watched this video because I want to know your expectations -

your instructions as I don't want to do the wrong work" (interview 1). Jing also found video-files made her feel distanced from her lecturers as she felt a pressure when watching them to be part of a group rather than learn on her own.

I feel the distance still, a little bit isolated, I don't know why because I'm talking to you, I'm not feeling it now but whenever I go home and turn on my computer and start reading, the videos and the voice file that you recorded, when I listen to those, and I watch the video I still feeling I'm so far away from you (Jing, interview 1)

Another insight was offered by three participants. They felt that if there were limitations in the digital fluency of their lecturers this impacted negatively on the experience and perception of a human connection with their lecturers. For example, the three ECE student teacher participants identified that the technical knowledge of their lecturers contributed to a feeling of disconnection with them. In the case of Caroline, she felt that not hearing her lecturer properly due to issues with a microphone caused a barrier. She commented:

I don't know - I'm not sure if it's just [Lecturer's name] or the mic but I just wasn't getting what they were saying. I had to try three different devices and then I was like now I can hear it so when it goes well it's so cool (Caroline, interview 1)

Amy had a similar feeling of disconnection from a lecturer due to technical ability, but in her case the concern related to the lecturer not being mindful of lighting in video clips. She explained:

There is another lecturer at the moment... the lecturer's videos I haven't really seen her face because there is so much background light around her - I realise that she is in temporary parts but I can't see her at the moment because the light behind her is too bright so I can't - so even though she is talking I can't see her yet (Amy, interview 1)

For Stephanie, her barrier was the cost and difficulty of downloading large files which could have been recorded with different digital tools that could provide easy access.

And yeah, should be doing that in voice-files and the biggest one was 400 meg - it was like a TV show (Laughter). So, in reality downloading that in the Pacific it costs about 50 bucks (Stephanie, interview 2)

Stephanie also identified lecturers' digital pedagogy a potential barrier. From her perspective voice-files that were long or software such as PowerPoint that were not being used for their intended purpose caused her to lose focus and find it a challenge to understand and engage with content. This point is illustrated in the following quotes in which she comments on the optimal length of audio and ppt files:

Then again, these voice-files were 15 to 30 mins long - it is too much. It's something like 5 minutes that keeps people's attention (Stephanie, interview 2)

For example, this week one of the lecturers has uploaded a bunch of PowerPoint slides and there are 68 slides, and I went through them and I'm struggling to get it. ...I think it would have been helpful for her to have talk them through and what the progression is from one to another because I don't see that (Stephanie, interview 2)

4.4.5 Digital technologies that nurtured a sense of intimacy with their lecturers

Four of the nine ECE student teacher participants valued the way in which digital technologies, used in the programme, afforded a sense of a human connection between themselves and their lecturers by creating a sense of intimacy. The reasons for a sense of intimacy were two-fold.

The first reason was that although video files and voice clips were available and open to all, when accessing them in the online learning space, the ECE student teacher participants experienced them as individual personalised connections. The perception of a personal exchange from lecturer to ECE student teacher participant created a feeling of intimacy. For example, Aisha stated that when she accessed the digital technology it "feels like they are talking to me rather than just everyone" (interview 2). Caroline shared this feeling and stated when referring to the use of digital technologies "I do find that good. It just helps me feel but they might be speaking to me" (interview 1).

The perception of intimacy was not diminished even though the ECE student teacher participants were aware that the digital technologies used by their lecturers were asynchronous, and their peers were also accessing the digital technologies. This is demonstrated by Olivia who commented,

It is quite intimate because it is one-to-one. Well, it is not one-to-one, it is one to however many they are doing it to, but you are watching it in that One space, but it just makes them seem a bit more real, I think (interview 2)

Amy and Caroline further explained why this was the case by noting that for them, when they accessed the digital technology, it afforded them an experience of being alone with the lecturer.

[there was a] personal feel, more than as if we were in the lecture room, because it's you and me at the time when I access you. From my perspective I know you are catering to all but it's two when I access it. So, it is very personable in that respect for me (Amy, interview 1)

But I do think it is nicer than reading a screed of introduction and I do find that good. It just helps me feel that they might be speaking to me (Caroline, interview 1)

The second aspect that gave ECE student teacher participants a feeling of an intimate connection with their lecturers was the one-to-one space. This feeling was due to two factors. The first factor was the ECE student teacher participants' awareness that only the lecturer and themselves were part of the interaction it was a private space. This is illustrated by Olivia who said, "And just having the one-to-one space like that private space is like talking to someone without other people listening" (interview 2) and Amy who noted that "because it is just you and me at the time when we access it" (interview 2). The second factor, as presented earlier in this chapter, was that due to the private nature of the one-to-one space, the topic of interaction could nurture a sense of intimacy between ECE student teacher participants and their lecturers. For example, the one-to-one space was a place to disclose personal information, share challenges that the ECE student teachers were experiencing and where the lecturer could express concern and empathy.

4.4.6 Summary

In summary, this section of the findings chapter has responded to the third research sub-question: how do student ECE teachers perceive that digital technologies enable or constrain human connections with their lecturers? The analysis of the data identified that ECE student teacher participants found a number of ways in which digital technologies helped them to forge a human connection with their lecturers. They identified opportunities for interaction within the online learning space, the different affordances of digital technologies that enabled them to perceive their lecturers as real people, certain digital technologies used by lecturers for sharing their knowledge, and the ways in which digital technologies created a sense of intimacy among ECE student teacher participants. However, the analysis of the data also illustrates the constraints of digital technologies in fostering a human connection between ECE student teacher participants and their lecturers as well as specific challenges shared by some participants.

The following section of this chapter responds to the fourth research question: how do student ECE teachers envisage that the human connections they have experienced with their lecturers will shape their professional identity and influence their beginning teacher practice?

4.5 The implications of human connections for teacher professional identity

The following section presents findings in response to the discussion point and final research question: in what ways are student ECE teachers' teacher professional identities shaped by the human connections they experience with their lecturers? The findings are presented under the following three headings: shaping professional teacher identity by understanding the nature of professional relationships; shaping of teacher professional identity through lecturers sharing

knowledge; and the influence of human connections on the digital fluency of ECE student teacher participants.

4.5.1 Shaping professional teacher identity by understanding the nature of professional relationships

Seven of the nine ECE student teacher participants identified that the human connections they had experienced with their lecturers had primarily influenced their understanding of professional relationships (Aisha, Caroline, Olivia, Amy, Zhiyu, Jing, Stephanie). This was summed up by Amy who said that “it is all about the relationships” (interview 1). However, there was a variation in how the ECE student teacher participants felt that they had been influenced.

Olivia, Stephanie, Jing and Aisha drew from their experiences with their lecturers to identify the importance of caring and showing empathy in professional relationships with children and family in their role as an early childhood teacher. This point is captured by Jing who says:

“I think we need to show that we really care about them[sic] to make in-depth interaction with the children, and the first point is just what [lecturers name] does, what all the lecturers have done, that you show your care for us” (Jing, interview 2)

Stephanie expanded on this point by elaborating that part of displaying empathy included not judging others through the understanding of others’ feelings and situations. “So the empathy that you guys have shown is I think something that I will take, not judging parents but showing understanding” (Stephanie, interview 2).

Aisha recognised that professional relationships were holistic and included academic and social factors which nurtured trustful, caring relationships with families. For Aisha, chat was key in the connection as it provided insights into the real person, into “how their human life is going. Not just their work of professional academic stuff but them as a person. I feel this comes on top of everything” (Aisha, interview 2). Caroline also sought to connect on a holistic level stating, “I am human, and I think parents need to see that too” (Caroline, interview 1).

Caroline and Amy viewed positive professional relationships as democratic in nature without hierarchical constraints. Caroline explicitly referred to how she felt that lecturers had “modelled” professional relationships that were open and invited questions. This point is captured in her words:

I think actually the process of learning is the process of questioning and if lecturers can model being approachable and letting their students ask questions- even if the students are on the wrong track, you know, it is about the process. I suppose I want to be that teacher

who helps the process, who actually models that learning is a joy and always an experiment (Caroline, interview 2).

Three of the ECE student teacher participants expanded on the notion of a democratic understanding of professional relationships. The ECE student teachers explained that the human connections they had experienced with their lecturers had influenced their thinking about the need to be open to listening to different perspectives and appreciating that there are different ways of understanding the world. For example, Joanna in her first interview commented that she had changed and could “view topics from different perspectives” (interview 1).

Caroline further described how she had been influenced by her lecturers modelling fun and enjoyment through the human connections she had experienced with them. She commented that “she understood and appreciated the importance of professional relationships being fun and that learning was enjoyable” (interview 2).

4.5.2 Shaping of teacher professional identity by lecturers sharing knowledge.

For four of the nine ECE student teacher participants, the human connections with their lecturers during their study were key factors in shaping their professional identity through the development of knowledge (Stephanie, Zhiyu, Olivia and Min). From the ECE student teacher participants’ perspective, lecturers sharing their knowledge during the online component of the programme influenced their professional identity in two ways. The first way was explicitly through lecturers sharing programme content knowledge which Min described as “putting knowledge from the programme into practice” (I interview 1). However, for Zhiyu and Min, both international ECE student teachers, knowledge development included programme content but also the implicit modelling by lecturers of ways of being and doing in the context of Aotearoa New Zealand. Such knowledge included the holistic understanding of professional relationships relevant to curriculum and education documents in the Aotearoa New Zealand early childhood context. As Zhiyu stated:

Because I am learning in a foreign country I try to learn more ways to do things, more ways to behave around people, around students. I think it is quite influential for me as I am learning everything you are doing (Zhiyu, interview 1).

Zhiyu further added to his point by elaborating that the modelling of lecturers was very important in developing his understanding of Aotearoa New Zealand from more than an educational context. This point is endorsed when he noted that “not only the content but the way you talk, the way you behave because it is all new to me and a new culture I try to pick up” (Zhiyu, interview 1).

4.5.3 The influence of human connections on the digital fluency of ECE student teacher participants.

Four of the ECE student teacher participants indicated that the human connections they had experienced with their lecturers in the programme had influenced the way in which they viewed the use of digital technology in educational settings. Olivia, Zhiyu, Caroline and Min agreed that the use of digital technology by their lecturers in the programme had influenced their understanding of how knowledge could be shared in different ways mediated by the use of digital technologies. However, Min noted that it was “the way you [lecturers] use technology” (interview 2) that was key and as Olivia further endorsed the human connections had opened her understanding of “digital learning and different ways of doing things” (interview 1).

For Caroline and Zhiyu, the human connections they had experienced with their lecturers had shaped their understanding of digital technologies as relational tools that could initiate and sustain relationships. For ECE student teacher participants, different ways of communicating afforded by technologies enabled them to see a pedagogical use that would enact curriculum intent. However, there were differences in how each ECE student teacher considered this factor. Caroline appreciated the value of digital technologies as an additional way of communicating with learners' families. Zhiyu viewed the use of digital technologies as a medium for connecting with other children internationally to learn more about different cultures and countries.

4.5.4 Summary

In summary this section of the chapter has responded to the fourth and final research sub-question: how do ECE student teachers envisage that the human connections they have experienced with their lecturers will shape their professional identity? The analysis of the data showed that the ECE student teacher participants felt that the human connections they experienced with their lecturers shaped their professional identity in three ways. The first way was by influencing their values and understanding of professional relationships and the second way was attributed to the development of professional knowledge and the third way was through the development of a professional digital identity.

4.6 Summary

This chapter has provided an analysis of all the data gathered in the semi-structured interviews, focus groups and AODs and the composite portraits based on the data. These sources have provided explanations for ECE student teacher participants' personal identity prior to entering initial teacher education, human connections that were deemed important to the ECE student teacher participants

the role that digital technologies had in enabling or constraining human connections and the ways that the ECE student teacher participants experience of human connections with their lecturers contributed to shaping their teacher professional identity. Findings illustrate that the ECE student teacher participants' experience of human connections did contribute to the development of their teacher professional identity. In addition, findings show that different affordances of digital technologies enabled and sometimes constrained the sense of a human connection in various ways for each of the ECE student teacher participants. These findings will now be explored and discussed in relation to the existing literature in the next chapter.

Chapter Five: Discussion, implications for practice, opportunities for future research and conclusion

The technology is the music setting the tempo, the beat, the timbre and the compelling melodies. The pedagogy defines the choreography, directing the dancers' sweeping motions, graceful extensions and enduring embraces. Together, technology and pedagogy reveal and develop our human creativity and responsiveness and allow us to learn effectively and enjoyably. (Anderson & Dron, 2012, p. 1)

5.1 Introduction

The aim of this study was to enhance understanding of how ECE student teachers in a hybrid early childhood initial teacher education (ITE) programme experience human connections with their lecturers in Aotearoa/ New Zealand. The emphasis of this study was the ECE student teachers' perceptions of their experience of these connections in the online learning environment and the implications of these experiences.

As this study focused on human connections in the online learning environment, it was important to investigate the ways in which digital technologies enabled or constrained the learners' perceptions or experiences of such human connections. This was deemed important, as without digital technology there can be no interaction.

Although not the main focus of the study, this study also considers as a discussion point any influence that experiencing human connections had on the development of the ECE student teachers developing teacher professional identity.

The sub-questions developed to interrogate the overarching question for this study were:

1. What prior experiences do ECE student teachers bring to their hybrid initial teacher education programmes?
2. How are human connections experienced by ECE student teachers in their online professional relationships with their lecturers?
3. How do ECE student teachers perceive that digital technologies enable or constrain human connections with their lecturers?
4. How might ECE student teachers' experience of online human connections with their lecturers during their study shape their teacher professional identity?

This research required an in-depth inquiry from the perspective of the ECE student teacher participants; correspondingly, a phenomenographic, qualitative case study approach was used to address the research questions. As discussed in chapter three, individual semi-structured interviews, focus groups and AOD forums were used to generate qualitative data which were then analysed using reflexive thematic analysis (Braun & Clarke, 2006, 2021) to identify patterns and themes to answer the research questions. These themes were presented as findings in chapter four.

The findings of the study are discussed under three headings which directly respond to the research questions. The first section discusses the prior experiences that ECE student teachers bring with them to their ITE programmes (research question 1). In particular, this section focuses on the ECE student teacher participants' experiences of prior professional relationships with their teachers in previous study situations. The second section explores the ECE student teachers' views on their experiences of human connections with their lecturers in the online learning environment in the specific setting of the initial teacher education (ECE) programme and how they perceived that digital technologies enable or impede the human connections (research questions 2 and 3). The final section discusses the ways that their experience of human connections with their lecturers in the online learning environment contributed to the shaping of the ECE student teachers' professional identity (research question 4). In this section the discussion draws on aspects of the ECE student teachers' prior experiences to consider changes from personal to professional identity and the reasons for them.

5.2 Prior experiences that ECE Student teachers bring to their initial teacher education study

This section responds to the first research question: what prior experiences do ECE student teachers bring to their hybrid initial teacher education programmes? When considering this question, a key focus was the ECE student teacher participants' prior experiences with professional relationships with educators in previous study situations. Findings illustrate that the ECE student teachers brought a range of prior experiences with them to their initial teacher education programme. Prior experiences include cultural and educational contexts that are detailed in Table.1 (see chapter 4 findings)

The findings show that, even among the small sample of nine ECE student teachers, there was considerable diversity in their cultural and educational backgrounds. These findings are consistent with literature that asserts that the student demographic in higher education is diverse, with students bringing a range of experiences and cultures to the learning environment (Hagenauer et al.,

2022; Tormey, 2021; Quinlan, 2016). ECE student teacher participants' descriptions of their prior experiences of professional relationships revealed a range of views. Their reports showed a continuum in the descriptions from professional, distant, and strongly hierarchical descriptions to warm, personal, and caring relationships (see chapter 4 findings). In some cases, such as in the accounts of Jing and Zhiyu, prior experiences of professional relationships are complex and multiple due to the ECE student teacher participants' undertaking their previous studies in different countries. This prior experience, by its nature, included practices, values and pedagogies for learning shaped by the national educational contexts, cultures and practices of the countries they studied in (see chapter 4 findings). These findings align with literature that identifies that when beginning initial teacher education, student teachers bring with them diverse experiences, values and beliefs that shape their understanding of teaching and learning, these histories include their understanding of professional relationships (Beeijarrd & Meijer, 2017; Edwards & Edwards, 2017; Flores, 2020; Cobb, 2019). The findings also showed that for others such as Stephanie, in some contexts professional relationships were not considered necessary for learning to occur and were perceived as a waste of time. This finding supports the literature that asserts that professional relationships are not always needed or wanted by some students (Bonk & Lee, 2017; Zhu et al., 2020). In some instances, for example, for Aisha, childhood experiences have had a negative influence on her perception of professional relationships (see chapter 4 findings). While there was evidently a wide range of prior learning experiences, the findings concur with those in the literature that emphasise how the quality of prior professional relationships can either stifle or motivate learners to engage with and enjoy study (Bell, 2012; Gibbs, 2006; Giles, 2011). These findings are significant although there has been previous research related to professional relationships in Aotearoa New Zealand (Bell, 2012; Gibbs, 2006; Giles, 2011), there have been limited studies which demonstrate these findings for ECE student teachers in hybrid initial teacher education programmes.

As a consequence of prior experiences of professional relationships, the ECE student teacher participants had conflicting understandings of how professional relationships are enacted and felt. The findings illustrate that when the ECE student teacher participants engaged in professional relationships in their initial teacher education programme, their history of prior relationships influenced how they experienced their current professional relationships. These findings align well with literature that asserts that the way professional relationships are experienced between student and lecturer is subjective, relational and perceived in different ways by different students depending on their different contexts (Chapman, 2021; Giles, 2011; Knewstubb, 2016; Martons, 2007). The findings also correlate with literature that highlights the importance of lecturers understanding how different cultural world views influence students' perceptions of professional relationships

(Anderson, 2019). The findings illustrate that different perceptions of professional relationships can cause tensions for ECE student teachers in their learning as there can be a misalignment between what they feel to be a productive professional relationship and their experiences in an online programme. This seems to be particularly dependent on the ways in which the ECE student teacher participants' prior experiences aligned with the socio-cultural underpinning of the design of the GradDipT ECE initial teacher education programme. For participants who had experienced prior professional relationships which were similar to those in the programme there was a smooth transition. However, the international students, with a different prior understanding of professional relationships, which tended to be hierarchical and distant, experienced frustration and uncertainty in their learning journeys. Such experiences can lead to student disengagement, loss of enjoyment and ultimately attrition from programmes (Kotero et al., 2019; Patel, 2021; Turk et al., 2022). Therefore, it is important that lecturers employ relational pedagogy that is understanding and responsive to cultural difference and seeks to flatten power dynamics by fostering a student focussed learning environment (Ouyang et al., 2020). Additionally, relational pedagogy can respond to student diversity with care and empathy which can nurture positive professional relationships (Hagenauer et al., 2022). For example, literature provides insights into how international students appreciated how lecturers tolerated their slowness as they transitioned into a different learning environment and became used to different ways of being and doing (Anderson et al., 2019). Essentially, for some students, cultural differences and prior experiences of professional relationships can lead to inequitable learning environments as they can find it a challenge to adjust to online learning and ultimately do not fully engage with, or fully withdraw, from their programmes (Archard, 2014; Oztok, 2014, 2019, 2020). However, if lecturers are cognisant and responsive to students prior experiences and culture differences by employing pedagogical strategies this can help mitigate such feelings.

These findings highlight the need for lecturers to understand how different prior experiences can influence the learning experience of each of their student teachers and employ a range of teaching strategies to support and enhance teaching and learning in the online space. The importance of tailoring the online learning experience to different students is affirmed by Pacansky et al. (2020) who observe that for students in online programmes which are designed to value and provide a sense of connection "learning is more like experiencing a delicious meal customised to one's own dietary needs with meaningful dialogue and connections" (p. 16).

This point is highly significant as online learning programmes can potentially have a more diverse student body than their face-to-face counterparts, as they can enable people to access education who have traditionally been marginalised (Hartnett et al., 2023; Kotero et al., 2019; Parker, et al.,

2021). This student diversity can be a challenge in online learning environments that are designed according to a neo-liberal agenda and, as a consequence, often employ standardised mass education models with little or no opportunities for lecturers' presence or facilitating individual connections with students (Pacansky et al., 2020). Additionally, lecturers in higher education are not required to have teaching qualifications. As a result, they may lack the pedagogical knowledge needed to address student diversity, or in a neoliberal environment may not have access to professional development opportunities in teaching within their institutions to support them to do so (Daumiller et al., 2020; Fraser, et al., 2019; Kabilo & Nkoane, 2025; Murtonen & Vilppu, 2020; Robinson & Hope, 2022; Quinlan, 2016). Furthermore, the neo-liberal agenda can be a challenge for lecturers who are not acknowledged for the time and expertise in developing human connections with their students as these aspects are not recognised in teacher's workload allocation (Busteed, 2015; Kahu and Picton, 2019; Hagenauer et al., 2022; Quinlan, 2016). Finally, a neo-liberal agenda can lead to inequities in learning experiences for some student teachers because of a hidden curriculum which maintains cultural hegemony in the online learning environment and can marginalise learners from different cultural backgrounds (Littenberg-Tobias & Reich, 2020; Oztok 2014, 2019, 2020).

5.2.1 Summary

This study shows that ECE student teachers bring a diverse range of prior experiences with them into their initial teacher education programme. Prior experiences include cultural and educational contexts which shape how the ECE student teacher participants perceive professional relationships. For some of the ECE student teacher participants, their prior experiences caused tensions in how they experienced professional relationships in the hybrid initial teacher education programme. This was particularly true for international students or for others who had experiences that contrasted with the socio-cultural professional nature of professional relationships in the online ECE teacher education programme. This is of concern as such tensions can result in marginalisation and poor learning experiences for ECE student teachers and can ultimately lead to attrition in programmes. These findings draw attention to the need for eLearning policy and practice to recognise and respond to individual learners' prior experiences so that ECE student teachers have a rich, inclusive learning environment. Although there is general research that supports this study's assertion, there is very limited research focussing specifically on online ECE teacher education programmes, policy and practice in the Aotearoa New Zealand context.

5.3 ECE student teachers' experiences of human connections with their lecturers in the online learning environment, and how digital technologies enabled or impeded human connections.

This section responds to the second and third research sub-questions:

- how are human connections experienced by ECE student teachers in their online professional relationships with their lecturers?
- how do ECE student teachers perceive whether digital technologies enable or constrain human connections with their lecturers?

The two research questions are combined in this section to provide a cohesive discussion because responses to the questions are interdependent. Findings show that the majority of ECE student teacher participants experienced a range of human connections with their lecturers during their initial teacher education study. Given the socio-constructivist design of the LMS for the programme, the findings are encouraging as they align well with literature that values human connections in the student teacher relationship and recognises that learning is not an individual action but that it takes place through social interactions with others within a cultural context (Harasim, 2017; MoE, 1996; MoE, 2017; MoE, 2007; Pacansky-Brock et al., 2020; Rogoff, 1996; Santrock, 2019; Vygotsky, 1978). Findings demonstrate that the theoretical underpinning and design of the LMS integrated with the pedagogy of the lecturers facilitated an online learning environment that nurtured human connections and supported the intended socio-constructivist approach to teaching and learning. This finding concurs with scholars that assert the affordances of digital technologies combined with congruent pedagogy can create warm collaborative, learning environments where human connections are valued and championed (Burke & Larmar, 2021; Ouyang et al., 2020; Potts & Stebletsova, 2022). The findings also concur with literature that highlights the importance of lecturers having an online pedagogy and technical capability to nurture human connections with their students (Elsayary et al., 2024; Coker, 2018; Pacansky-Brock et al., 2022). In the case of this study, and a point of difference from some lecturers employed in higher education, all the lecturers in the programme were qualified teachers before being appointed as lecturers. As such, their pedagogy was grounded by socio-cultural theory which recognises the importance of relationships in the learning process. This point was recognised by Stephanie (chapter 4) who perceived that because her lecturers were qualified teachers they made an effort to nurture professional relationships. The positive comments from the participants in this study about the positive human connections they had with their lecturers, support the strong recommendation of literature, that higher education

institutions recognise the importance of lecturers having time and funding to access PLD to support the development of their online pedagogy and digital fluency (Anderson et al., 2019; Hagenauer et al., 2022; Kahu & Picton, 2019).

However, significantly, findings also show that despite the potential for connection offered by the design of the online learning environment, these connections did not eventuate for all the participants. There were still some ECE student teacher participants who felt disconnected and distant from their lecturers or experienced tensions in the connections that they had with them (Forbes et al., 2023; Gedera et al., 2023; Yates et al., 2020). This is disquieting and needs further examination for two key reasons. The first reason is that such feelings can lead to isolation and potential withdrawal from study (Baker et al., 2020; Baum & McPherson, 2019; Gimpel, 2022; Hewett et al., 2016; Mehta & Aguilera, 2020; Pacansky-Brock et al., 2020a; Pacansky-Brock et al., 2020b; Parker et al., 2012). The second reason is that the absence of a human connection with lecturers may limit opportunities to fully experience professional relationships that reflect Aotearoa New Zealand's early childhood curriculum and education documents, which in turn could impact on the development of professional teacher identity (Beauchamp & Thomas, 2009; Bell et al., 2017; Cherrington, 2017; Cobb, 2019; Flores, 2020; OECD, 2022; Varis et al., 2023; Vizek Vidovic & Domovic, 2019). The analysis of the data also shows that the ECE student teacher participants experienced human connections in different ways and for different reasons which are explained later in the chapter. Findings also consistently signal the desire and need for human connections during study in the online environment and the value of these relationships for sustaining an effective online learning community. This seemed true even for those ECE student teachers who felt limited connections or no connections with their lecturers. The experiences of and variation in the ECE student teachers' human connections with their lecturers can be attributed to a range of factors which emerged from the findings. These factors will be discussed in the following sections.

5.3.1 Knowing lecturers as 'real' people

The findings in this study highlight the importance of ECE student teacher participants' perception that they know their lecturers as 'real' people for a nurturing human connection with them to occur. These findings align well with literature on the concept of social presence which is the "ability of participants in a community of inquiry to project themselves socially and emotionally as 'real' people (i.e. their full personality), through the medium of communication used (Garrison & Anderson, 2004, p. 29).

In my study, the findings identified two key features in the online learning environment that supported the ECE student teachers' sense of knowing their lecturers as real people. The features were the importance of meeting lecturers face-to-face and the positive impact of lecturers sharing aspects of themselves with the ECE student teachers. Each feature will now be discussed in relation to literature in conjunction with a summary of the digital technologies that the ECE student teacher participants felt were useful in supporting this sense of knowing the 'real' lecturer

5.3.1.1 The importance of meeting lecturers face to face in supporting human connections

Findings show that meeting lecturers face-to-face had a significant influence on ECE student teacher participants perceptions of their lecturers as real people when they engage with them in the online learning environment. This is evident in the views expressed by seven of the nine teacher student participants who all indicated that the opportunity to meet their lecturers face to face enabled them to feel that they had an impression of the real person in the online space (see chapter 4 findings). The ECE student teacher participants explained that they were able to transfer knowledge about their lecturers from their face-to-face encounters to augment their online interactions.

Consequently, they observed that they had a greater sense of the lecturer as a whole person. The significant proportion of participants in my study who expressed this view highlights the importance of face-to-face encounters as part of a hybrid delivery model. In the case of initial teacher education, the Teaching Council of Aotearoa New Zealand requirements stipulate that a certain amount of face-to-face engagement (interviews, block courses, lecturer practicum visits) is mandatory (Teaching Council, 2024). The reality however is that, although requirements and opportunities remain, there will be certain limitations as not every ECE student teacher is able to meet each of their lecturers face-to-face. For example, not all lecturers will meet student teachers during the interview process or at required face-to-face block courses. This can result in inconsistency in human connections with lecturers and opportunities to know them more fully.

In my study, the majority of ECE student teacher participants who did not meet lecturers face-to-face felt a sense of disconnection and lack of motivation with their study. The clear preference of the ECE student teacher participants to meet lecturers face-to-face is slightly at odds with the literature that states students enrol in online learning programmes for the flexibility and convenience of not having to attend face-to-face classes (Adel & Dayon, 2021; Tate & Warshauer, 2022; Xie et al., 2022). However, when online students do not feel connected to their lecturers, this can result in high attrition rates due to lack of motivation and sense of isolation in the online learning space (Forbes et al., 2023; Gedera et al., 2023). One way to ameliorate the limited opportunities for face-to-face meetings, is the use of digital technologies such as asynchronous video and audio files from the

lecturer. The findings illustrate that, despite the asynchronicity in the interaction, the ECE student teacher participants' perception of their lecturers' 'realness' through these mediums was a valuable alternative. The reasons given by the ECE student teacher participants (see chapter 4 findings) as to why such mediums were useful in human connections was seeing and hearing the lecturer especially in less 'scripted' and sometimes unedited formats. This 'naturalness' in recordings was considered a useful substitute for live face-to-face encounters. These points support literature that notes that affordances of asynchronous digital technologies enable a sense of intimacy and immediacy when used by lecturers with pedagogical purpose (Archard & Merry, 2010; Chai et al., 2023; Kahu et al., 2024; Pacansky-Brock et al., 2020; Vistisen & Jensen, 2021). For example, in my co-authored study (Archard & Merry, 2010) we found that unedited, natural podcasts of conversations between two lecturers, which captured the use of paralanguage contributed to the lecturers being perceived by the ECE student teacher participants as real people. Interestingly, for two of the ECE student teacher participants the prosody embedded within paralanguage was more powerful when captured in a voice file rather than a video clip (see chapter 4 findings). This is an example of how the same outcome can be achieved through different digital technologies depending on the individual preference of the ECE student teacher.

In the current study, six of the ECE student teacher participants found that video clips were also useful for knowing their lecturers as real people as they could see their body language, choices in clothing and, as expressed by Aisha, "the YouTube clips are close to that whole human part". The findings closely align with literature that notes that a sense of intimacy can be created between teacher and student through non-verbal communication such as facial expression, smiling and eye contact (Borup et al., 2011; Gunarwardena & Zittle, 1997; Marshall & Love, 2025; Martin & Bolliger, 2022). However, building connections in this way also requires lecturers to have a pedagogical understanding of the potential of audio and video files, not only for their content but also for enhancing teacher presence (Fiock et al., 2021; Morrison & Jacobson, 2023; Turk et al., 2022; Wang et al., 2021). The learners' experience of teacher presence through these tools is not always straightforward. For example, one finding of note is that there can be a mismatch between formal, edited video recordings and the lecturer's more natural way of being in face-to-face encounters. Some ECE student teacher participants commented that such a mismatch can cause uncertainty and disruption, with one student being "...unsure where I stood" (see chapter 4 findings) with the lecturer in the professional relationship.

An issue with video and audio recordings by lecturers occurs when heavy workloads, lack of pedagogical understanding or access to professional learning and development means that lecturers

do not record contextual and personal recordings. This can be indicative of a neoliberal agenda in education which does not recognise the importance of human connections and consequently does not support lecturers in their development (Kahu & Picton, 2019; Hagenauer et al., 2022; Quinlan, 2016). Recycling the same recordings over a number of programme iterations because of these constraints can be problematic. The loss of context and connection to the current setting, and people, places and things in the world can limit their immediacy and authenticity as well as their relevance. This point is emphasised in the findings, when the ECE student teacher participants note that it is not only the seeing and hearing the lecturer which enables them to be perceived as real, but also the capturing of contextual events such as lecturers recording overseas when they had told students they were away, or making a reference to a particular piece of current news. Additionally, the 'unscripted' interruption of people popping in when recordings are happening engenders a sense of human fallibility and naturalness. It should also be recognised that these audio and video resources are not important for all learners. Time-poor students can overlook viewing the resources, as evidenced in the study, and limit their opportunities to develop human connections with their lecturers. Indeed, there was a mixed view on the value and use of the resources with some just catching key content whereas others valued the contact including the delivery by a familiar or important person.

The findings in my study demonstrate the importance of reciprocity in terms of 'realness.' This means not only lecturers presenting themselves as real to the ECE student teacher participants, but also that ECE student teacher participants feeling they are perceived, received and known as real by lecturers in the online space. This findings align with literature that notes the use of video and audio recording can be perceived as a one-way transmission of lecturer social presence (Chai et al., 2023). A notable source of concern in this study was that two ECE student teacher participants felt that they could not be known through their text-based contributions alone and three international ECE student teacher participants felt particularly disadvantaged by having to communicate through text. These international students clearly indicated that they felt lecturers would know them far better in a face-to-face learning environment (see chapter 4 findings). These findings contradict Yildiz (2009) whose study found that international student experiences of AOD gave them time for reflection and space to share more about themselves, including their culture and who they are, than in the face-to-face learning environment. However, my findings concur with Oztok (2014, 2019, 2020) whose studies found that AOD gave rise to a social absence of culture and understanding of the person in the online environment. It is concerning that in my study there is an inequity for some of the ECE student teacher participants, such as ones who have English as an additional language. This inequity highlights the need for an online relational pedagogy based on social justice to extend students'

options for communicating through other mediums such as podcasting, Panapto recordings and formats that enable learners' cultural selves to be present and appreciated. Choices should also include the option for non-disclosure, as the notion of equity in online learning is not without complexity. For instance, it is well documented in literature that students who have faced discrimination or othering in face-to-face learning environments choose online learning environments and text-based communication to avoid negative bias (Baker et al., 2022; Pacansky-Brock et al., 2020). Such a pedagogy aligns well with the incorporation of teaching presence in the design of the online learning environment and through facilitation of the AODs (Fiock et al., 2021). For example, in the Aotearoa New Zealand context, a pedagogical design that can include the sharing of Pepeha, mihi and assessments that can be completed in oral recordings to express their professional identity would offer more equitable opportunities to some learner communities (Archard, 2022; Oztok, 2020). Such experiences for diverse students increase their feelings of being valued and as such inform their understanding of professional relationships as teachers who will provide the same opportunities for children they will teach in the future.

5.3.1.2 Student perceptions of lecturers sharing about themselves in the online learning environment

A significant factor in the formation of interpersonal connections with lecturers was ECE student teacher participants' perceptions of their educators in academic and non-academic interactions in the online learning environment. Although all ECE student teacher participants valued lecturers sharing aspects of themselves, ECE student teacher participants varied as to what they felt contributed to their appreciation of their lecturers as real people. All nine ECE student teacher participants identified that lecturers sharing aspects of themselves was important for getting to know their lecturers as real people. This finding aligns well with literature that stresses the importance of lecturers sharing aspects of themselves in the online learning environment to contribute to their social presence, so that they are perceived as real (Aragon, 2003; Kehrwald, 2008; Mackay & Freyberg, 2010; Lowenthal, 2009). However, the ECE student teacher participants identified different aspects of a lecturer's portrayal of self that resonated well with them. For example, four of the ECE student teacher participants found that when their lecturer shared personal stories with them, this helped the perception of their lecturers as real people. The range of stories included life outside of the university and family life updates. One ECE student teacher participant summed up the value of their lecturer sharing stories with them as enabling them to feel that they were really talking to a person. This was because the ECE student teacher participant could gain a sense of the life of the lecturer beyond their academic profile. These findings align well with the indicators of social presence (Garrison, 2017) and thus reinforce the importance of lecturers having a pedagogical understanding of the importance of sharing information about themselves and creating the time and

space to do so (Aragon, 2003; Archard, 2022; Kehrwald, 2008; Mackay & Freyberg, 2010; Lowenthal, 2009). The impact of the sharing of stories by lecturers was also perceived by some ECE student teacher participants as engendering a non-hierarchical relationship that enhanced the sharing of self and learning together. This point links well to literature that suggests lecturers use a range of pedagogical strategies to help flatten the power dynamics that exist within lecturers and students in nurturing positive lecturer-student relationships (Anderson, 2019) .

ECE student teacher participants also highlighted the importance of lecturers sharing their humour as this helped them to be perceived as real and approachable (see chapter 4 findings). It was also evident in the findings that humour is culturally and socially bound and when shared can be potentially ill-received depending on different cultural interpretations (Dalonges et al., 2016). This is a potential tension for lecturers and ECE student teacher participants who use humour in videos, audio recordings and written text as their comments may be received well by some but not by others.

A further aspect of non-academic interaction that assisted ECE student teacher participants to see their lecturers as real people was when lecturers shared emotions or conveyed empathy for them. This is illustrated in the findings when seven of the nine ECE student teacher participants identified that the sharing of emotion and empathy was vital for their perception of their lecturers as human (see chapter 4 findings). These findings align well with literature related to social presence and Nodding's (1992, 2013) research on caring that emphasises the importance of emotion in learning environments (Plant & Asselin, 2014; Rabin 2021; Whaanga, 2022). However, it is important to remember that that it is not only the act of the lecturer sharing emotions or conveying empathy, but also the student response to how they interpret the lecturer behaviour that positions their lecturers as human (Tormey, 2021). Findings in my study demonstrated the effectiveness of text-based communication mediated in the LMS to convey emotions and empathy to the ECE student teacher participants; however, two ECE student teacher participants felt that they could not pick up on cues in the same way that they would be able to in face-to-face situations. It was recognised by some ECE student teacher participants that through text-based communication, lecturers can choose what and how they convey emotional information without it being accompanied by cues such as voice and body language. The comment by Amy (see chapter 4 findings) also shows that the use of video or audio files may also not reflect the true emotions of lecturers as they can edit or act for the moment. In this respect, some participants felt that lecturers can filter the information they want to share and the manner in which they want to share, regardless of the medium chosen in the online learning environment.

Whether face-to-face or online, the selection of information to share with students sits within the professional standards and boundaries of professional relationships. These findings resonate with literature that clearly states that in higher education both lecturers and students expect professional boundaries (Anderson, 2019). However, in face-to-face situations it is more difficult to mask signs of tiredness and stress as they can be physically apparent through body language and appearance. The findings demonstrate that the ECE student teacher participants valued the care and empathy shown to them during study by their lecturers and wanted the opportunity to pick up on cues from their lecturers to reciprocate these emotions to their lecturers where this was appropriate. Comments made also indicate that even if the ECE student teacher participants were aware of challenges their lecturers were facing, they were unsure of how best to contact them as they felt the LMS was too formal. This is surprising because ECE student teacher participants identified the one-to-one interaction spaces as good for receiving care and empathy from their lecturers. The literature also affirms the potential of these one-to-one spaces for nurturing connections (Fiock et al., 2021; Morrison & Jacobson, 2023). However, it appears that the students did not feel that these spaces created the same opportunities to reciprocate these emotions. Explanations for the mismatch in perception of the use of the same interaction space could indicate a power differential between lecturers and the ECE student teacher participants. So potentially, a stronger sense of membership in a community of learners with an impression of less hierarchical constructs combined with less formal moments for interaction could open opportunities for reciprocity in showing care and emotion.

Another feature that the ECE student teacher participants found helpful in perceiving their lecturer as real was when their lecturers shared their fallibility (see chapter 4 findings). Indications of fallibility promoted recognition of lecturers' humanity as it showed that lecturers were 'not perfect.' This recognition enhanced the impression of equity and safety in the online community as it invited risk-taking and allowed for mistakes to be made by everyone who contributed to the online learning community. Lecturer fallibility was captured by digital video and audio technologies (see chapter 4 findings) where non-edited 'natural' recordings were uploaded into the LMS by lecturers. From a pedagogical perspective, it is vital that lecturers have the opportunity for and access to digital technologies in the LMS to record in an informal manner, which can potentially disrupt standardised, centralised LMS design and organisation (Fiock et al., 2021). However, the findings also caution that lecturer fallibility is different from perceiving lecturers as incompetent or lacking in digital fluency. For example, instances where lecturers did not choose appropriate digital technologies for the task or equipment did not work were considered as disruptive and frustrating (see chapter 4 findings) rather than fallibility.

5.3.2 Characteristics of communication for supporting human connection

Findings indicate that the ECE student teacher participants perceived communication as key to fostering a human connection with their lecturers. This view is consistent with a socio-cultural view of learning that theorises that learning is not an individual activity but one that is mediated through social interaction with others (Dewey, 1938; Santrock, 2019; Harasim, 2017; Vygotsky, 1978).

The findings clearly identify that an interactive learning management system, where lecturers are engaged and respond to interactions in a timely manner, promotes the perception of a human connection between lecturer and ECE student teacher participant. For example, Stephanie explained that a non-interactive learning management system with no lecturer engagement would not feel human (see chapter 4 findings) and simply be a paper exercise of sorts. The findings have implications for the choice of learning management system in tertiary settings if a human connection is to be nurtured. This is because the underpinning philosophy of the learning management system needs to be congruent with the understanding that learning occurs through interaction with people, places and things (Moodle, 2024; MoE, 2017). An effective learning management system that is underpinned by socio-cultural theory, such as Moodle, can provide opportunities for human connections providing that lecturers use the environment with pedagogical intent.

It is critical that the LMS is designed and organised to enable teaching presence for lecturers and ECE student teachers when interacting (Robinson & Hulliger, 2008, p. 107). For example, findings suggest that it is important to have multiple interaction points that can provide different spaces for communication between lecturer and ECE student teacher, ECE student teacher and lecturer and also ECE student teacher and ECE student teacher. This is a significant factor to consider when designing courses as it is vital that lecturers have the opportunity to personalise and interact with ECE student teachers in a manner that reflects their individual teaching style and personality. The findings align well with the research of Fiock et al., (2021) that asserts the importance of lecturers having the opportunity to personalise the online learning environment, particularly ones that are standardised, to enable teaching presence to occur. Coker (2018) further endorses this point by noting that even within a standardised format lecturer's presence can be perceived by students as personal, as lecturers' different pedagogies will reflect their different values, attitudes and beliefs about teaching and learning in their online engagement.

It is also imperative that lecturers have a pedagogical understanding of how the different affordances of digital technologies can nurture a human connection through communication and are guided by netiquette in their practice (Carillo & Flores, 2020; Fiock et al., 2021; Kauppinen et al., 2024; Rokx, 2019). For example, the findings revealed the experiences of one ECE student teacher participant

who, drawing on their prior experiences of study, described how for them their previous learning experience seemed devoid of human connections due to the nature of communication with his lecturers. It is pertinent to this study that although the lecturers in this ECE student teacher participant's prior experience had used video to communicate which can emulate face-to-face interaction such as eye contact, physical gestures and informal language, the way in which it was used did not convey the person's humanity. As explained by Zhiyu, he felt that although he could see and hear his lecturers that "there was no communication at all" (see chapter 4 findings). By contrast, in the current study, findings suggest that the pedagogical use of video, audio and one-to-one messages supports social and teaching presence and thus create a sense of intimacy between members of the online COI (see chapter 4 findings).

In relation to the style of language used in the online learning environment, the findings illustrated that the ECE student teacher participants perceived communication to consist of formal and informal modes. The ECE student teacher participants expressed a clear preference for informal communication for supporting a human connection with their lecturers. The findings align with socio-cultural theory that regards teaching as a social practice dependent on language and communication (Bell, 2022; Forbes et al., 2024). Furthermore, the findings indicate that formal language had the potential to create a barrier between lecturer and ECE student teacher participants (see chapter 4 findings). Formal written language could also lead to misunderstandings in communication where the tone of messages is interpreted as being offhand, when perhaps not intended. A pedagogical employment of digital technologies, such as video and audio files, could help ameliorate this issue as an opportunity to hear lecturers' voices and patterns of talking which can be transferred when reading text.

As previously stated, ECE student teacher participants in this study showed a clear preference for informal communication in supporting a human connection with their lecturers (see chapter 4 findings). Informal language used in the online learning environment was referred to as 'chat' by six of the nine ECE student teacher participants. The characteristics of 'chat' were defined as spontaneous, reciprocal, social and emotional in nature, characteristics that align with the construct of social presence (Hayes et al., 2020; Whaanga, 2022). The value of 'chat' is highlighted in literature that denotes teaching as a social practice where communication is key to the teacher-student relationship (Al Tawil, 2019; Bell, 2011; Forbes et al., 2024). Findings suggest that when 'chatting' in the online learning environment, lecturers were likely to share aspects of themselves, laugh and convey warmth (see chapter 4 findings). The power of chatting was particularly evident when two lecturers chatted together, as findings indicate that it added a warmth

to the learning environment (Archard & Merry, 2010; Daly & Forbes, 2021). The ECE student teacher participants drew on their prior experiences of chat in face-to-face environments to provide examples of naturally occurring moments of chat in their lives (see chapter 4 findings). The examples in the findings provide insights into how chat is perceived by the ECE student teacher participants as non-hierarchical in nature and can open opportunities for learning more about the person outside of study. Chat was also deemed a valuable way of communicating and finding out about the wellbeing of the person, and as such was perceived as an act of caring through the social presence of the lecturer (Burke & Larmar, 2020; Gleason & Mehta, 2022; Plant & Asselin, 2014; Post et al., 2017; Whaanga, 2022). However, findings indicate that the opportunity for 'chat' seemed to be a one-way process from lecturer to student teacher participant as it was captured via asynchronous digital technologies such as video clips which the ECE student teacher participants watched. The one-way nature of 'chat' was considered an issue for two of the ECE student teacher participants as they felt that they were not able to initiate and reciprocate chat with their lecturer; for them, this was a barrier to forming a human connection with them. While previous research has shown the importance of informal chat in online learning, no previous work appears to have documented the limitation of the one-way nature of chat in online learning, neither specifically For ECE teacher education nor in other contexts.

To nurture a human connection through the language of chat, there can be some challenges in the online learning environment. From a pedagogical perspective, paradoxically what tends to be naturally occurring moments for chat in face-to-face contexts need to be carefully designed in the online learning environment. For example, students in face-to-face higher education contexts value the informal conversations they have with their lecturers out of class time as they feel it nurtures a socio-emotional connection with their lecturer (Anderson, 2019; Tormey, 2021; Quinlan, 2016). However, in online learning environments, such informal moments need to be strategically planned, scheduled and supported by appropriate digital technologies that can facilitate chat in the online learning environment. In the consideration of which digital technologies best afforded opportunities for chat, the findings indicated that synchronous opportunities such as Facebook Messenger were very effective. This was because the synchronous, multimedia rich, reciprocal, easily accessible platform created opportunities for intimacy and immediacy between communicatees that could replicate the informal conventions of chat. Findings indicated that Facebook Messenger was a very useful tool for peer-to-peer interaction as it provided social, emotional and cognitive support and one of shared experience. While Facebook Messenger might not be utilised in formal learning management systems, the findings suggest the importance of using alternatives that are available and could be employed in the same way. This findings align well with literature that suggests

lecturers employ synchronous and asynchronous communication platforms such as Zoom, Microsoft TEAMS and Discord to provide opportunities for informal, reciprocal communication with their students (Chai et al., 2023; Kahu et al., 2024; Vistisen & Jensen, 2021). However, caution does need to be exercised in relation to expectations about the availability of lecturers. In this study, the findings indicate that the ECE student teacher participants were respectful and realistic about the demands on the lecturer's time when designing opportunities for chat. However, in different programmes this might not be the case so ensuring clear guidelines concerning synchronous opportunities for chat could support the balance of lecturer workloads. There also needs to be a consideration for how equitable synchronous chat opportunities might be for learners who have chosen online learning due to time restraints or learners who have poor Internet connection being able to access such opportunities (Adel & Dayan, 2021; Tate & Warschauer, 2022; Xie et al., 2022). The findings draw attention to this potential for inequity. A solution suggested by one ECE student teacher participants was that meetings be recorded and made available to all.

5.3.3 The importance of feedback in nurturing human connections between ECE student teachers and their lecturers

The findings indicated that the ECE student teacher participants found feedback to be a very effective way of connecting with lecturers in the online space. This is evidenced by six of the nine ECE student teacher participants identifying feedback to be useful in nurturing human connections with their lecturers. Findings in this study are therefore consistent with the construct of teaching presence which through direct instruction provides feedback to students (Garrison, 2017; Fiock et al., 2021; Turk et al., 2022). It is of interest that each of the ECE student teacher participants identified particular forms of feedback which they found effective, and even if choosing the same type as one of their peers, there would often be different reasons for this. These findings have implications for practice as they indicate that it is not always the feedback itself that is important but rather the nature of feedback, when it is provided and how it is conveyed by the lecturer (Fiock et al., 2021; Kauppinen et al., 2024; Morrison & Jacobson, 2023). Each type of feedback is now discussed in relation to the findings of this study and relevant literature.

5.3.3.1 Timely feedback

The findings showed that five of the nine ECE student teacher participants felt that timely feedback was key in developing a human connection with their lecturers. Findings concur with literature that asserts the value of teaching presence through timely feedback for building a positive rapport between lecturers and learners in the online learning environment (Garrison, 2017; Fiock et al., 2021; Kauppinen et al., 2024; Morrison & Jacobson, 2023). It is noteworthy that the findings show that

each of the ECE student teacher participants had different reasons for why timely feedback was important. For example, for Olivia, receiving feedback in a timely manner generated trust. For Aisha, who seemed to be drawing on her prior experiences of study, timely feedback provided reassurance for her in her study by confirming her thinking (see chapter 4 findings). For two other ECE student teacher participants, timely feedback indicated their lecturers' care for them. These findings are consistent with literature that highlights the importance of different aspects of social presence and teaching presence such as trust, reassurance and care in the online learning environment (Rabin, 2021). The findings also illustrate that it is not just the lecturer behaviour of timely feedback that engenders a sense of human connectedness but how the ECE students' interpret the behaviour according to their past experiences (Tormey, 2021). As a discussion point, perhaps we can conclude that timely feedback can cover a whole range of consequences and impacts for learners related to emotional and social outcomes. However, for feedback to resonate in such a way with learners it requires thoughtful timing, content and be informed by appropriate pedagogy. Such a pedagogy values social and teaching presence in the online learning environment and appreciates the different needs of learners (Garrison, 2017; Fiock et al., 2021; Turk et al., 2022). Therefore, it is key that lecturers, who do not necessarily have the pedagogical understanding, have opportunities for professional learning development to support their online teaching practice (Anderson et al., 2019; Hagenauer et al., 2022; Kahu & Picton, 2019). Further implications for online teaching practice include the importance of developing netiquette guidelines that recognise the importance of timely lecturer feedback. However, the netiquette guidelines should be balanced and transparent so that response times feel timely for the learners, but are also realistic for lecturer workloads (Archard, 2022; Rokx, 2022; Yildiz, 2009). This is important for maintaining human connections between lecturers and ECE student teacher participants, as findings demonstrate that when it is felt that feedback is not given in a timely manner, this generates feelings of frustration and disconnection (see chapter 4 findings).

In the Aotearoa New Zealand context, the findings related to timely feedback in this study align with and model the socio-cultural expectations of curriculum and the relationality of teaching as detailed in *Te Whāriki* (2017) and *Our Code, Our Standards: Code of professional responsibility and standards for the teaching profession (CoPRS)* (Education Council, 2017). The nature of timely feedback as described in the findings (see chapter 4 findings) also link with *Tātaiako: Cultural competencies for teachers of Māori learners* (Education Council, 2011) and *Tapasā: cultural competency framework for Teachers of Pacific learners* (MoE, 2018) and thus can also be considered a strategy to support a culturally responsive pedagogy.

5.3.3.2 Affirming individual feedback on draft assessments

Findings illustrate that receiving affirming, strength-based individual feedback from lecturers was instrumental in supporting a human connection between lecturers and three of the ECE student teacher participants. The human connections were nurtured through the teaching presence of the lecturer when providing reassurance for the ECE student participant teachers that they were “on the right track” with their thinking (Aisha, Interview 2). However, each of the three ECE student participants identified different reasons for why the individualised feedback was important for them. For example, Amy was seeking reassurance because she was returning to study after a long break, while Min, an international student, was developing confidence in overcoming language difficulties whilst writing in English as an additional language. Aisha wanted clarification that she was correct in her thinking, a response which was informed by her previous educational experiences (see chapter 4 findings). The findings reinforce literature that asserts the importance of teaching presence through direct instruction that provides personalised feedback to the learner to meet individual needs in nurturing connections (Fiock et al., 2021; Kauppinen et al., 2024; Morrison & Jacobson, 2023). Findings also show that communicating privately with lecturers in the one-to-one space also adds to a sense of connection as there is an impression of intimacy in the interaction. This is due to the lecturer referring to the ECE student teacher participant by name and responding to individual inquiries combined with the ECE student teacher participant knowing that the lecturer is communicating with them and them alone (Fiock et al., 2021; Morrison & Jacobson, 2023).

The comment by one of the ECE student teacher participants about being “on the right track” mirrors the words of one of the participants in Morrison and Jacobsen’s (2023) research. The participant in Morrison and Jacobsen’s (2023) research was describing the impact of timely feedback on her study. This feedback which affirmed her progress was on her submitted assessments as part of the marking process for student teachers in a Canadian Bachelor of Education programme. However, in the case of the current study, the ECE student teacher participants were referring to affirming feedback received on draft assessments prior to submission to check that they were “on the right track.” Another point of difference between the Morrison and Jacobsen’s (2023) research and my study is that in their study the lecturer provided the feedback as a routine part of the marking process, whereas in this study the ECE student teacher participants requested feedback from their lecturers to check that they are on the ‘right track’. It could also be argued that the ECE student teacher participants' act of reaching out and seeking feedback from lecturers in this way indicates trust on their part which has already been nurtured already through aspects of the programme ethos and lecturer interactions to date. Implications from the findings suggest that when learners feel

connected and trusting of their lecturers, the learning environment is one that is likely to see students 'take the plunge' and ask for feedback.

Although a fairly low percentage of the ECE student teacher participants in this study identified affirming feedback on draft assignments as being important to them, the reasons for their views indicate how learners' different backgrounds and prior experiences necessitate different kinds of response from lecturers in the online learning environment. The findings of this study demonstrate how receiving affirming feedback was important to these ECE student teacher participants due to their prior experiences and individual circumstances which include cultural influences (see chapter 4 findings). The notion of lecturers respecting and acknowledging individual ECE student teachers' needs by providing feedback that is not necessarily part of the course requirements, indicates the need for a relational pedagogy which is responsive to individual students (Anderson, 2019) . The findings suggest that providing affirming feedback on draft assessments can also nurture an equitable environment. However, it can also engender inequity if there is an inconsistency in different lecturers' practices about providing such feedback. Again, the findings indicate the need for clear and transparent guidelines relating to pedagogy and practices in the online learning environment.

5.3.3.3 Personalised feedback written in-text in assessments

An important finding is that the ECE student teacher participants noted that when lecturers provided personalised feedback on assessments it helped to foster a human connection with them (see chapter 4 findings). It is pertinent that five of the nine ECE student teacher participants felt this way. This is a helpful reminder for lecturers. As marking is a requirement of their work, personalised feedback is a readily available way of building human connections with learners within the boundaries of their normal workload. The ECE student teacher participants were specific about the types of feedback in marking that nurtured a human connection. Addressing learners by name in feedback comments was considered as important. Findings indicate that when lecturers refer to the ECE student teacher participants by name in the assessment comments, this establishes a feeling of immediacy. These findings align with the literature related to social presence which emphasises the importance of using names in written text (Dalonges, 2016; Lowenthal & Mulder, 2017). The findings are also consistent with literature that asserts in higher education face-to-face classes the use students' names nurtures a sense of immediacy between student and lecture (Anderson, 2019; Tormey, 2021; Quinlan, 2016). Further, in keeping with the literature on social presence, findings indicated that the tone of feedback also impacted on nurturing human connections with their lecturers. If the tone was warm, constructive and humorous, then the ECE student teacher

participants felt connected, but if the tone was perceived as unfriendly or un-constructive then the feedback was perceived as an unpleasant experience (Hayes et al., 2020).

Some ECE student teacher participants had a particular preference about the nature of feedback that built a connection with the lecturer. For three ECE student teacher participants, a feeling of intimacy was engendered when lecturers commented and responded contextually throughout the assessment. These specific contextualised feedback comments gave the ECE student teacher participants the perception that the lecturer was talking one-to-one with them. Students also felt that the lecturer was 'really reading' their assignment and providing constructive feedback to further their knowledge. An international ECE student teacher participant also found it a helpful and caring act when the lecturer marking his work provided feedback that was not specific to the topic, but which enhanced his understanding of the Aotearoa New Zealand context (see chapter 4 findings).

These findings link well to the concept of teaching presence, in particular to the notion of direct instruction, as lecturers are providing personalised feedback with the intent of scaffolding knowledge and sharing academic leadership (Garrison, 2017; Fiock et al., 2021; Turk et al., 2022). The findings are of interest, as literature notes that often learners and lecturers have different perceptions of the levels of teaching presence in the online learning environment, with lecturers perceiving higher levels than learners (Fiock et al., 2021; Kauppinen et al., 2024; Morrison and Jacobson, 2023; Wang et al., 2021). Therefore, it is possible to hypothesise from the findings in my study that the perception of teaching presence from a learner perspective could be heightened through the provision of personalised feedback from lecturers during the marking process. However, such a practice needs to be integrated into the design and organisation of programmes to include this at the macro level planning of teaching presence. This planning would help negate neo-liberal tenets such as control and conformity which can lead to the standardisation of feedback and the loss of opportunities for human connections (Fiock et al., 2021; Giles, 2008; Giles 2011). Initial teacher education providers also need to consider that in an age of cost cutting and restructuring, in many academic settings the use of contractors to solely 'do the marking' can undermine the lecturers' pedagogical strategies to connect with their learners (Kahu & Picton, 2019). This can occur because for contract markers there is an inevitable feeling of distance from the students which can result in feelings of disconnection for learners.

5.3.3.4 Lecturers participating in AODS

The findings in this study confirm the association between teaching presence, in particular facilitation, with ECE student teacher participants perceptions of human connections with their lecturers when they participate in the AODs. The findings show that four of the nine ECE student

teacher participants felt a human connection with their lecturers when lecturers contributed to the AODs. The data indicates that the ECE student teacher participants perceived a human connection with their lecturers when postings were contextual to the topic, aimed at scaffolding academic growth and showed that lecturers were present (see chapter 4 findings). These findings concur with existing literature related to lecturer presence in AODs detailed in the literature review (Forbes et al., 2024; Garrison, 2017). Of interest is that when lecturers did not participate in the AODs, the ECE student teacher participants still perceived a human connection with them. This was because when using other digital technologies, such as videos, lecturers referred to the AOD topics (see page chapter 4 findings), and thereby showed that they were reading the AODs, while not specifically contributing to them. However, this awareness of teacher presence in the AODs was not always viewed entirely positively by learners. Some ECE student teacher participants felt like this form of presence was monitoring and an act of surveillance which can be perceived as a negative interaction. Despite this potentially negative view, the findings overall indicate that when lecturers contribute to the AODs they are perceived as actively participating in the online learning community with particular roles and responsibilities. This point aligns well with the socio-cultural theoretical underpinning of *Te Whāriki* (2017) and Aotearoa New Zealand education documents and enables an opportunity for lecturers to model professional relationships relevant to the context of this study (Education Council, 2011; Education Council, 2017; MoE, 2017a; MoE, 2017b; MoE 2018c). The findings also signal the importance of pedagogy that is underpinned by socio-cultural theory, an environment where lecturers are not time poor to enable regular, constructive participation in the AODs and where lecturers have the relevant professional development to enable them to do so. (Anderson et al., 2019; Gravett & Winstone, 2022; Hagenauer et al., 2022; Kahu & Picton, 2019).

5.3.4 Summary

This study shows that ECE student teacher participants can experience human connections with their lecturers in the online component of their hybrid initial teacher education programme. However, there is variation in how human connections are felt and in what ways they are deemed useful. For the ECE student teacher participants in this study, human connections were experienced by sensing their lecturers as real people, the lecturers sharing aspects of their personal lives, informal communication referred to as 'chat' and feedback that is timely, affirming and personalised. There are also variations in how the ECE student teacher participants felt that digital technologies enabled or impeded a human connection with their lecturers. These differences can be attributed to the ECE student teachers' prior experiences and understandings on entering initial teacher education of professional relationships, the ECE student teacher participants' experiences during their initial

teacher education, and the pedagogy and implementation of digital technologies to support teacher and social presence by their lecturers.

The findings highlight the importance of the online learning environment supporting a range of interactions between ECE student teacher and lecturer, and the lecturer having time, space and pedagogical understanding to engage with the online learning environment. Findings vitally identify the need for reciprocity in the experience of human connections with their lecturers so that ECE student teachers feel they are perceived as real people and can interact with their lecturers in a reciprocal manner.

The findings in this study contribute new knowledge to existing research related to initial teacher education in New Zealand (Archard, 2012, 2014; Forbes et al., 2024; Norsworthy, 2008), as there are very few studies which specifically explore student teachers' experience of human connections in ECE hybrid initial teacher education in the Aotearoa New Zealand context.

The next section of this chapter explains the influence of human connections on the development of teacher professional identity.

5.4 The impact of experiencing human connections on the development of teacher professional identity

Although not the main focus of this study, a discussion point of this research was to consider how ECE student teachers' experience of human connections with their lecturers during their online study may have shaped their professional identities (see question 4). As discussed in the literature review, this is of key interest as initial teacher education is identified as an ideal foundational context for shaping teacher professional identity which includes an understanding of professional relationships (Beauchamp & Thomas, 2009; Bell et al., 2017; Cherrington, 2017; Cobb, 2019; Flores, 2020; OECD, 2022; Varis et al., 2023; Vlasta & Vlatka, 2019). However, scholars also observe that initial teacher education can be a weak intervention as it may be hard to change existing ECE student teachers' perceptions of teaching and learning as these views have developed over time and are grounded in their experiences, values and beliefs (Beeijarrd & Meijer, 2017; Norsworthy, 2008; Vizek Vidovic & Domonvic, 2019). While the scholarship indicates these caveats about the impact of ITE on teacher professional identity, there is also research that demonstrates that students acknowledge the significant impact of initial teacher education on the formation of their teacher professional identity. Research shows that student teachers identify their teaching practice experience in education settings and opportunities for reflection in their courses as being the most powerful influences in shaping their professional teacher identity (Kamenarac, 2021; OECD; 2022; Russell & Martin 2016).

Given these existing research findings, it is significant that this study's findings show that all nine of the ECE student teacher participants felt that the human connections they experienced with their lecturers during the online component of the programme contributed to the shaping of their teacher professional identities and consequently shaped their understanding of professional relationships in the Aotearoa New Zealand ECE sector. The findings challenge research that suggests initial teacher education is a weak intervention in developing teacher professional identity as they illustrate that the ECE student teachers' personal identity did in some ways accommodate new understandings of the nature of teaching and learning including professional relationships. However, the reasons for how the ECE student teacher participants felt their teacher professional identities were influenced varied and are discussed in the following sections: shaping understanding of professional relationships, development of knowledge and digital fluency.

5.4.1 Shaping understanding of professional relationships

The findings indicate that for seven of the nine ECE student teacher participants the human connections that they experienced during the online component of their initial teacher education influenced their professional teacher identity in relation to understanding professional relationships (see chapter 4 findings). The descriptions provided by ECE student teacher participants (see chapter 4 findings) represent their views as compared with their initial understanding of professional relationships. It is significant that by the end of the programme (12 months), the findings indicate that seven of the ECE student teacher participants had a shared understanding of professional relationships as a socio-cultural construct that reflect Aotearoa New Zealand's curriculum and education documents (see chapter 4 findings). For some of the ECE student teacher participants, such as Caroline, Amy and Joanna, this viewpoint aligned with their original perceptions of professional relationships as democratic in nature, so did not cause tension because their personal and professional identities were similar (Beauchamp, 2019; Beijaard et al., 2023). Of interest is that although these ECE teacher students' perceptions of professional relationships did not change, their understanding of them deepened and they were able to describe professional relationships from a pedagogical perspective. For example, the language and terminology used by the ECE student teacher participants mirrored the language of curriculum and education documents of Aotearoa New Zealand.

For other ECE student teacher participants, the findings indicated a significant shift from their original perceptions of professional relationships on entering ITE (Beauchamp, 2019; Beijaard et al., 2023). For example, Aisha on entering ITE clearly separated professional relationships into two categories. She distinguished between one type of professional relationship for pastoral care and

another type for academic purposes (see chapter 4 findings). Aisha's experiences of human connections in the programme saw a shift in her thinking to the understanding that social and academic relationships can merge and therefore she came to see professional relationships as holistic in nature. This finding is significant as it concurs with contemporary literature that acknowledges the role of a lecturer in higher education as being both cognitive and socio-emotional thus enabling lecturers to model professional relationships in this way (Anderson, 2019; Gravett & Winstone, 2022; Quinlan, 2016). Stephanie, on entering ITE, saw no real need for professional relationships to support learning but came to appreciate the place not only of professional relationships but also the importance of empathy and care within them. The importance of caring professional relationships was echoed by two other ECE student teacher participants (see chapter 4 findings) who included the families of learners in their understanding. The changes in understanding of professional relationships align well with the socio-cultural aspirations of relationships detailed in curriculum and education documents (Education Council, 2011; Education Council, 2017, MoE, 2017a; MoE, 2017b; MoE 2018c).

These findings emphasise the importance of lecturers modelling professional relationships that reflect curriculum and education documents (see chapter 4 findings). This is because it is critical that student teachers in the online environment have opportunities to shape their professional teacher identity by either affirming, developing or disrupting their prior understandings. It would seem from the findings that such opportunities can contribute to the shaping of teacher professional identity and consequently strengthen the capacity of ITE to develop teacher professional identity. The implications for starting teacher practice are also significant, because student teachers entering the teaching profession will have a teacher professional identity which is grounded in a commitment to responsive, caring, reciprocal professional relationships. The philosophical underpinning of these professional relationships challenge core neo-liberal tenets such as assumptions of capital and individualism which conflict with te ao Māori concepts of care and empathy (Ruth, 2018). Professional relationships underpinned by socio-cultural theory can potentially achieve better outcomes for learners and their families in Aotearoa New Zealand. On entering the teaching profession after graduating from their initial teacher education programmes, the understanding of professional relationships grounded in socio-cultural theory will reflect the aspirations of curriculum and education documents which are aimed at culturally responsive practices appropriate for Aotearoa New Zealand.

5.4.2 Development of knowledge relevant to the Aotearoa New Zealand Context

The findings show that from the perspective of four of the ECE student teacher participants, the perception of lecturers sharing their knowledge through teaching presence contributed to the development of their professional teacher identity (Garrison et al., 2000; Kauppinen et al., 2024; McCarthy, 2020; Morrison & Jacobson, 2023). Lecturers sharing their knowledge was identified as a human connection by the ECE student teacher participants and data illustrates that they found the connection to be instrumental in shaping their teacher professional identity in two ways (see chapter 4 findings).

The first way was that when lecturers shared their knowledge it enabled the ECE student teacher participants to make connections between course content and professional teaching practice experience. This finding is useful as it demonstrates that experiencing human connections can mitigate the siloing of experiences that contribute towards shaping teacher professional identity which are embedded in initial teacher education and help to draw all experiences together. Existing literature highlights that student teachers identify that the two separate activities of teaching practice experience and the opportunity for reflection in course content are key to developing their teacher professional identities (Cobb, 2019; Flores, 2016; Kamenarac, 2021). The findings in this study demonstrate that to enable initial teacher education to be a stronger intervention in developing teacher professional identity, using all opportunities to influence and connect experiences should be a pedagogical consideration.

The second factor that contributed towards the shaping of two of the international ECE student teacher participants' professional teacher identity was when lecturers shared knowledge that directly related to the Aotearoa New Zealand context (see chapter 4 findings). The knowledge that the lecturers shared was not directly related to course content but rather related to modelling of the ways of being and doing as a teacher in Aotearoa New Zealand. These findings supported literature that highlights the importance of lecturers teaching in initial teacher education modelling the craft of teaching in a manner which is responsive to the context of the curriculum and education documents (Loughran, 2006; MoE, 2017).

Findings indicate that it is vital for lecturers to have the opportunity to share knowledge with ECE student teachers to further contribute to the shaping of teacher professional identity. However, such opportunities can be reduced or not present if the online learning environment is standardised and/or lecturer relational interactions are not recognised in lecturer workload (Fiock et al., 2021).

5.4.3 Development of ECE student teachers' digital fluency

An unexpected finding was the influence of the use of digital technologies by lecturers in the programme on the ECE student teacher participants' teacher professional identity. The digital technologies were pedagogically employed by lecturers in the programme to interact with the ECE student teacher participants and data indicates that this use influenced teacher professional identity by challenging student teacher participants' preconceptions. For Min and Olivia, their previous ideas about the use of digital technology in education were challenged, and from their experiences in the programme they started to appreciate that there were different transformative ways of teaching and learning using digital technology. For Caroline and Zhiyu, their original perceptions of digital technologies were challenged to consider the use of digital technologies as a relational tool to connect with others both nationally and internationally. The findings highlight the importance of a pedagogically informed use of digital technologies by lecturers with a clear purpose so that the experiences that ECE student teachers have are rich and reflect a socio-cultural positioning of the use of digital technologies with curriculum and education document intent (Education Council, 2011; Education Council, 2017, MoE, 2017a; MoE, 2017b; MoE 2018c). This is a finding that has not previously been found in ECE hybrid teacher education in Aotearoa New Zealand.

5.4.4 Summary

The findings indicate that the human connections that ECE student teacher participants experience with their lecturers in the online component of the programme can influence teacher professional identity and their understanding of professional relationships. It is interesting anecdotally that certificated ECE teachers talk about the limitations of the online learning experiences for engendering a sense of humanity with others which is intrinsic in a face-to-face learning on campus experience in initial teacher training. Sometimes it would appear as a criticism or uncertainty about the merits of hybrid learning as being a viable way for student teachers to get experience and be part of a profession that is reliant on human connection and interaction such as teaching. My study has in some ways, negated such a view, but only if the pedagogical design of, and practice within, hybrid initial teacher education programmes have at their foundation the intent of creating experiences for the development of professional teacher identity integrated into the culture of the programme. This pedagogical understanding in the design and facilitation of online courses coupled with the practicum/placement elements can create rich opportunities for student teachers to experience and learn about the complexity and necessity of human connectedness.

Although extensive research has been undertaken related to teacher professional identity in the Aotearoa New Zealand context (Cobb et al., 2018; Cobb, 2019; Edwards & Edwards, 2017; Kamenarac, 2021), the findings of this study contribute new knowledge to this research domain. This is because the findings show how the experience of human connections in a hybrid initial teacher educator programme in Aotearoa New Zealand can shape and influence teacher professional identity which has not been previously found in ECE initial teacher education research.

5.5 Key points from the study with implications for eLearning policy and practice for ECE hybrid initial teacher education in Aotearoa New Zealand

The following section summarises key points from the study and the implications for eLearning policy and practice:

- ECE student teachers can experience human connections with their lecturers in the online learning environment; however, ECE student teacher participants had different perceptions of the human connections they experienced, how they experienced them and the value of the connection. Therefore, lecturers need to employ a range of online pedagogical strategies to connect with their ECE student teachers to ensure that they respond to individual needs and prior experiences.
- Human connections tend to be engendered by social and teaching presence in the online learning space. In ECE initial teacher education in Aotearoa New Zealand it is imperative that lecturers have a pedagogical understanding of these concepts and can apply them in practice. A pedagogical understanding and appropriate application of these concepts is essential to fulfil the aspirations set out in curriculum and education documents.
- Lecturers need a pedagogical understanding of and purpose for the use of digital technologies (including LMS) to enable nurturing human connections with ECE student teachers. Lecturers also need to be digitally fluent and able to employ digital technologies appropriately so as not to create barriers to learning and connection.
- It is important that lecturers in higher education have opportunity for professional development to nurture their pedagogical understanding and digital fluency in how to foster human connections in the online learning environment.
- ECE student teachers' past experiences influence the way in which they experience human connections with their lecturers and the ways in which human connections are valuable for

them. This point needs to be considered when designing and facilitating online learning to engender an inclusive learning environment.

- In designing and organising the online learning environment, opportunities for various forms of personalised interaction between lecturer and ECE student teacher are important for supporting human connections which recognise diverse needs.
- Policy and practice need to support an online community of learners which nurtures responsive, reciprocal, caring professional relationships. It is crucial that within the online community of learners lecturers enact their pedagogical role of scaffolding learning and encouraging participation of all. It is also imperative within the online community of learners that ECE student teachers are given opportunities to reciprocate human connections with their lecturers.
- The development of policy, such as Netiquette, needs to reflect a socio-cultural view of learning and establish consistent guidelines in relation to interaction in the online learning space relevant to the Aotearoa New Zealand context. For example, policy and guidelines should cover aspects such as timely lecturer response times, participation in the AODs and guidance on constructive, personalised interaction.
- Experiencing human connections with their lecturers in the online learning environment can contribute to the development of understanding professional relationships inherent in teacher professional identity to reflect understanding of key concepts of Aotearoa New Zealand curriculum and education documents.

5.6 Opportunities for future research

This qualitative research investigated how ECE student teachers experienced human connections with their lecturers in one hybrid initial teacher education programme. Of particular interest were the ECE student teachers' perceptions of the role of digital technologies in mediating human connections with their lecturers in the online component of their study. Additionally, although not the main focus of this study, consideration was given to how the experience of human connections with their lecturers influenced the ECE student teachers' developing teacher professional identity. Although sufficient data were collected to identify themes and reply in full to the research questions, this study does have some limitations and identified opportunities for future research which are now explained.

Sample size is one possible limitation. Although the diverse experiences of the nine ECE student teacher participants enabled me to gain insights into a range of experiences of human connections with their lecturers in the online learning environment and the implications for their professional teacher identity, a wider sample could have provided greater scope for data collection and analysis. The design of the research project originally intended to employ a purposeful selection of participants to enable a wide range of experiences to be captured in the data. However, nine ECE student teachers volunteered to participate in the study, which negated the need for such a selection. The research could be enriched by including lecturers as participants in the study. This would be valuable, particularly as the scholarship recognises that there is a disparity between how lecturers and learners perceive teaching and social presence in the online learning space. The inclusion of lecturers as participants could provide the opportunity to compare and contrast the perceptions of lecturers and students of human connections in the online learning community.

The focus of this study was a one-year Graduate Diploma of Teaching ECE. This scope of the research did not allow for capturing the voices and experiences of ECE student teachers in three-year undergraduate degree courses. It may be that much could be learnt from ECE student teachers who enter initial teacher education without a prior undergraduate degree and who study over a longer period particularly in relation to the development of teacher professional identity.

Another opportunity for research that has come to light is a need to further investigate equitable practice in relation to social and teaching presence in the online learning environment within the Aotearoa New Zealand context. This can be considered a limitation because the topic came to light through the literature review and data analysis, but there was no opportunity to fully explore and include findings as this was not within the scope of my study.

5.7 Conclusion

A socio-cultural view of learning places human connections at the forefront of the student teacher relationship (Harasim, 2017; MoE, 1996; MoE, 2017; MoE, 2007; Pacansky-Brock et al., 2020). Correspondingly, it is vital to investigate the nature of human connections between ECE student teachers and their lecturers in hybrid initial teacher education programmes to maximise these connections. This study argues that it is possible for human connections to exist between lecturer and ECE student teacher in a hybrid programme, and that the human connections experienced by the ECE student teachers are influenced by past experiences, diverse, complex and mediated in different ways by different digital technologies. This topic has not been researched previously for ECE initial teacher education in Aotearoa. The research provides insights into effective online teacher

education in Aotearoa to supplement existing research such as Forbes' (2012) doctoral study: *Footprints: Participant perspectives informing pedagogy for asynchronous online discussion in initial teacher education* and offers insights to the international digital education community.

Furthermore, my study highlights that the phenomenon of human connections as experienced by the ECE student teachers depends on their prior experiences. Findings demonstrate the significant impact of prior experiences on how human connections are experienced, not experienced, or deemed valuable. This study argues for the importance of socio-cultural pedagogy and policy that recognises the diversity of ECE student teachers for nurturing human connections in the online learning environment and consequently can contribute to the shaping of professional teacher identity.

My study also sheds light on the ways in which the ECE student teachers perceived that digital technologies enabled or impeded human connections in the online learning environment. Findings demonstrate that the lecturers' pedagogical understanding and use of digital technologies were key factors for facilitating and supporting teaching and social presence in the online learning environment, while ECE student teachers' different identities determined how their use was received.

This study also demonstrates that it is important for lecturers to model the building and sustaining of human connections in their professional relationships with ECE student teachers in the online learning environment. This is because findings illustrate that they influence and shape professional teacher identity in a variety of ways. It is important that professional teacher identity is influenced in ways that reflect the Aotearoa New Zealand curriculum and education documents.

In response to the goals of this study, the findings contribute to the existing research by offering enhanced understanding of online teaching and learning in early childhood initial teacher education in Aotearoa New Zealand. This study hopes to inform policy and practice by advocating for the place of human connections in online teaching and learning in nurturing community focussed programmes.

References:

- Adel, A., & Dayan, J. (2021). Towards an intelligent hybrid system of learning activities model for New Zealand institutions: An investigative approach. *Humanities & Social Sciences Communications*, 8(1), 1–14. <https://doi.org/10.1057/s41599-020-00696-4>
- Akerlind, G. S. (2012). Variation and commonality in phenomenographic research methods. *Higher Education Research and Development*, 31(1), 115–127. <https://doi.org/10.1080/07294360.2011.642845>
- Akerlind, G. S. (2008). A phenomenographic approach to developing academics' understanding of the nature of teaching and learning. *Teaching in Higher Education*, 13(6), 633–644. <https://doi.org/10.1080/13562510802452350>
- Al-Ghaith, W. (2015). Understanding Social Network Usage: Impact of co-presence, intimacy, and immediacy. *International Journal of Advanced Computer Science & Applications*, 6(8). <https://doi.org/10.14569/IJACSA.2015.060813>
- Alharahsheh, H., & Pius, A. (2020). A Review of key paradigms: positivism vs interpretivism. *Global Academic Journal of Humanities and Social Sciences*, 2(3) 39-43. <https://gajrc.com/>
- Alshahrani, S., Ahmed, E., & Ward, R. (2017). The impact of learning management systems on student performance. *International Journal of Advanced Computer Science and Applications*, 8(5), 1–7. <https://doi.org/10.14569/IJACSA.2017.080501>
- Al Tawil, R. (2019). Nonverbal Communication in Text-Based, Asynchronous Online Education. *International Review of Research in Open and Distance Learning*, 20(1), 145–164. <https://doi.org/10.19173/irrodl.v20i1.3705>
- Andel, S. A., de Vreede, T., Spector, P. E., Padmanabhan, B., Singh, V. K., & de Vreede, G.-J. (2020). Do social features help in video-centric online learning platforms? A social presence perspective. *Computers in Human Behavior*, 113, 106505-. <https://doi.org/10.1016/j.chb.2020.106505>
- Anderson, J. (2019). Relational pedagogy: Teacher–student relationships in higher education. *Teaching in Higher Education*, 24(5), 605–617. <https://doi.org/10.1080/13562517.2018.1541885>
- Anderson, T., & Dron, J. (2011). Three Generations of Distance Education Pedagogy. *International Review of Research in Open and Distance Learning*, 12(3), 80–97. <https://doi.org/10.19173/irrodl.v12i3.890>
- Amundsen, C. (2022). Academic identity and the scholarship of teaching and learning. *International Journal for Academic Development*, 27(3), 215–228. <https://doi.org/10.1080/1360144X.2022.2044567>
- Aoki, K. (2012). *Generations of Distance Education and Challenges of Distance Education Institutions in Japanese Higher Education*, IntechOpen. <https://doi.org/10.5772/50090>
- Aragon, S. R. (2003). Creating social presence in online environments. *New Directions for Adult and Continuing Education*, 2003 (100), 57–68. <https://doi.org/10.1002/ace.119>
- Archard, S. (2012). *Pedagogical tools in an online teacher education programme: A sense of belonging and social presence* [Unpublished Master's Thesis]. The University of Waikato.
- Archard, S. J. (2014). Feeling connected: A sense of belonging and social presence in an online community of learners. *International Journal of Cyber Ethics in Education*, 3(2), 16-28.
- Archard, S. (2022). Kaiako and social presence | Whakawhanaungatanga. In A. Card, R. Merry & J. Carroll-Lind (Eds.), *Bicultural principles of teaching and learning online - Ngā mātāpono kākano rua o te mahi ako tuihono* (pp.27-32). Wellington [New Zealand: NZCER Press.

- Archard, S., & Merry, R. (2010). Podcasts as a conversational pedagogy. *Computers in New Zealand Schools: Learning, Leading, Technology*, 22 (3), 1-11
- Ashworth, P., & Lucas, U. (1998). What is the “World” of Phenomenography? *Scandinavian Journal of Educational Research*, 42(4), 415–431. <https://doi.org/10.1080/0031383980420407>
- Baker, M., Richardson, S., & Rubio, F. (2020). Evaluating Teaching Presence in an Online Nursing Course: Proposing a New Taxonomy. *International Journal of E-Learning & Distance Education*, 35(2), 1–35.
- Balding, K. J., Geraghty, S., Timler, A., Pezaro, S., & McChlery, S. (2024). Phenomenography: A useful methodology for midwifery research. *Journal of Advanced Nursing*, 80(6), 2598–2610. <https://doi.org/10.1111/jan.15978>
- Baringer, D. K., & McCroskey, J. C. (2000). Immediacy in the classroom: Student immediacy. *Communication Education*, 49(2), 178–186. <https://doi.org/10.1080/03634520009379204>
- Basak, S. K., Wotto, M., & Belanger, P. (2018). University Students’ M-learning Adaption Behavioral Factors: A Pilot Study. *2018 IEEE 9th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON)*, 68–73. <https://doi.org/10.1109/IEMCON.2018.8615084>
- Bates, A. W. (2022). *Teaching in a digital age: Guidelines for designing teaching and learning* (3rd ed.). Tony Bates Associates Ltd. <https://pressbook>
- Bates, T. (2005). *Technology, e-learning and distance education: 2. ed* (2nd ed.). London [u.a.]: Routledge. <https://doi.org/10.4324/9780203463772>
- Bates, A. W. (2015). *Teaching in a Digital Age: Guidelines for designing teaching and learning for a digital age* (2nd Edition). Place of publication not identified
- Baum, S., & McPherson, M. (2019). The Human Factor: The Promise & Limits of Online Education. *Daedalus (Cambridge, Mass.)*, 148(4), 235–254. https://doi.org/10.1162/daed_a_01769
- Bayuo, J., Aziato, L., Wong, K. C. A., Su, J., Abu-Odah, H., & Wong, F. K. Y. (2024). Phenomenography: An emerging qualitative research design for nursing. *Journal of Advanced Nursing*, 80(2), 821–834. <https://doi.org/10.1111/jan.15874>
- Beauchamp, C. (2019). An exploration of evolving approaches to teacher identity revealed in literature on teaching from 2010 to 2018. In J. Lambert (Eds.), *Oxford Encyclopedia of Global Perspectives on Teacher Education* (pp.1-20). Oxford University Press
- Beauchamp, C., & Thomas, L. (2009). Understanding teacher identity: an overview of issues in the literature and implications for teacher education. *Cambridge Journal of Education*, 39(2), 175–189. <https://doi.org/10.1080/03057640902902252>
- Beijaard, D., Koopman, M., & Schellings, G. (2023). Reframing teacher professional identity and learning. In I. Menter (Eds.), *The Palgrave handbook of teacher education research* (pp. 763-785). Palgrave Macmillan
- Beijaard, D. (2017). Learning Teacher Identity in Teacher Education. In D.J Clandinin & J. Husu (Eds.), *The SAGE Handbook of Research on Teacher Education*, (pp. 139–142). Sage Publications Ltd
- Beijaard, D., Meijer, P. C., & Verloop, N. (2004). Reconsidering research on teachers’ professional identity. *Teaching and Teacher Education*, 20(2), 107–128. <https://doi.org/10.1016/j.tate.2003.07.001>
- Bell, B. (2011). *Theorising Teaching in Secondary Classrooms: Understanding our practice from a sociocultural perspective* (1st ed.). Routledge. <https://doi.org/10.4324/9780203154755>

- Bell, P., Van Horne, K., & Cheng, B. H. (2017). Special Issue: Designing Learning Environments for Equitable Disciplinary Identification. *The Journal of the Learning Sciences*, 26(3), 367–375. <https://doi.org/10.1080/10508406.2017.1336021>
- Bell, J., & Waters, S. (2018). *Doing your research project: a guide for first-time researchers* (7th edition.). Maidenhead, England: Open University Press / McGraw-Hill Education
- Beltrán, M., & Bernal, O. (2020). Research paradigms: a theoretical approach to reflect from the field of educational research. *LAUGH. Ibero-American Journal for Educational Research and Development*, 11 (21), e064. Epub 2021 Apr 23. <https://doi.org/10.23913/ride.v11i21.717>
- Bevan-Brown, J. (2009). *Māori learners with special needs: culturally appropriate, effective provisions*. Lambert Academic Publishing.
- Blaine, A. M. (2019). Interaction and presence in the virtual classroom: An analysis of the perceptions of students and teachers in online and hybrid Advanced Placement courses. *Computers and Education*, 132, 31–43. <https://doi.org/10.1016/j.compedu.2019.01.004>
- Bogdan, R.C., & Biklen, S.K. (2007). *Qualitative research methods for education: An introduction to theories and methods* (5th ed.). Pearson
- Bonk, C. J., & Lee, M. M. (2017). Motivations, achievements, and challenges of self-directed informal learners in open educational environments and MOOCs. *Journal of Learning for Development*, 4(1), 36-57.
- Boon-Nanai, J. M., Manuel, T., Lagolago, W., Lefono, T., Zaveri, V., Seleni, S., & Ponton, V. (2022). Re-examining the “culture of silence” through peer-based Pasifika pedagogies in a New Zealand tertiary environment. *Journal of Higher Education Policy and Management*, 44(2), 185–207. <https://doi.org/10.1080/1360080X.2022.2037274>
- Borup, J., West, R. E., & Graham, C. R. (2011). Improving online social presence through asynchronous video. *The Internet and Higher Education*, 14(3), 195–203. <https://doi.org/10.1016/j.iheduc.2011.01.004>
- Bowden, J. (2000). The nature of phenomenographic research. In J. Bowden & E. Walsh (Eds.), *Phenomenography* (pp. 1-18). RMIT University Press.
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589–597. <https://doi.org/10.1080/2159676X.2019.1628806>
- Braun, V., & Clarke, V. (2013). Teaching thematic analysis. *Psychologist (London, England: 1988)*, 26(2), 120–123.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Brown, S. J. (2023). Online but disconnected: Student connectedness in online remote learning in higher education in New Zealand. *European Journal of Education and Pedagogy*, 4(2), 156–160. <https://doi.org/10.24018/ejedu.2023.4.2.622>
- Brown, A., Lawrence, J., Basson, M., & Redmond, P. (2022). A conceptual framework to enhance student online learning and engagement in higher education. *Higher Education Research and Development*, 41(2), 284–299. <https://doi.org/10.1080/07294360.2020.1860912>
- Brownlee, J., & Berthelsen, D. (2006). Personal epistemology and relational pedagogy in early childhood teacher education programs. *Early Years (London, England)*, 26(1), 17–29. <https://doi.org/10.1080/09575140500507785>
- Bruce, C. (1999) Phenomenography: opening a new territory for library and information science research. *The New Review of Information and Library Research*, 5(1), pp. 31-48.

- Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press.
- Bunce, L., Baird, A., & Jones, S. E. (2017). The student-as-consumer approach in higher education: Effects on student motivation and learning. *Journal of Education Policy*, 32(2), 165–178. <https://doi.org/10.1080/02680939.2016.1205902>
- Buntting, C. (2019). How do people learn? Understanding the learning process. In M. Hill & M. Thrupp (Eds.), *The professional practice of teaching in New Zealand* (6th ed., pp. 20-46). Cengage Learning.
- Burke, K., & Larmar, S. (2021). Acknowledging another face in the virtual crowd: Reimagining the online experience in higher education through an online pedagogy of care. *Journal of Further and Higher Education*, 45(5), 601–615. <https://doi.org/10.1080/0309877X.2020.1804536>
- Cameron, G., Zuj, D. V., Dymond, S., & Quigley, M. (2022). Remote, online assessment of avoidance learning. *Learning and Motivation*, 78, Article 101805. <https://doi.org/10.1016/j.lmot.2022.101805>
- Card, A. (2022). Culturally responsive and relational pedagogy | Whakapapa. In A. Card, R. Merry & J. Carroll-Lind (Eds.), *Bicultural principles of teaching and learning online - Ngā mātāpono kākano rua o te mahi ako tuihono* (pp. 9-14). NZCER Press.
- Card, A., Merry, R., & Carroll-Lind, J. (Eds.). (2022). *Bicultural principles of teaching and learning online = Ngā mātāpono kākano rua o te mahi ako tuihono*. NZCER Press.
- Carr, J. M., Rogers, K. S., & Kanyongo, G. (2021). Improving student and faculty communication: The impact of texting and electronic feedback on building relationships and the perception of care. *Research in Learning Technology*, 29, 1–14. <https://doi.org/10.25304/RLT.V29.2463>
- Carrillo, C., & Flores, M. A. (2020). COVID-19 and teacher education: A literature review of online teaching and learning practices. *European Journal of Teacher Education*, 43(4), 466–487. <https://doi.org/10.1080/02619768.2020.1821184>
- Castellanos-Reyes, D. (2020). 20 Years of the Community of Inquiry Framework. *TechTrends*, 64(4), 557–560. <https://doi.org/10.1007/s11528-020-00491-7>
- Chai, C. S., Deng, F., & Qian, Y. (2024). Designing online learning environments for student engagement: A pedagogical model. *Computers & Education*, 195, Article 104678. <https://doi.org/10.1016/j.compedu.2023.104678>
- Chapman, L. (2021). *Exploring student-teacher relational connectedness in midwifery education. A phenomenological inquiry* [Doctoral thesis, Auckland University of Technology]. Auckland University of Technology. <https://hdl.handle.net/10292/14752>
- Cherrington, S. (2017). Developing teacher identity through situated cognition approaches to teacher education. In D. J. Clandinin & J. Husu (Eds.), *The SAGE handbook of research on teacher education* (pp. 160–177). SAGE Publications. <https://doi.org/10.4135/9781526402042.n49>
- Claessens, L. C. A., van Tartwijk, J., van der Want, A. C., Pennings, H. J. M., Verloop, N., den Brok, P. J., & Wubbels, T. (2017). Positive teacher-student relationships go beyond the classroom; problematic ones stay inside. *The Journal of Educational Research (Washington, D.C.)*, 110(5), 478–493. <https://doi.org/10.1080/00220671.2015.1129595>
- Clandinin, D. J., & Husu, J. (2017). *The SAGE Handbook of Research on Teacher Education*. SAGE Publications Ltd. <https://doi.org/10.4135/9781529716627>
- Cleveland-Innes, M., Garrison, D. R., & Vaughan, N. (2019). The Community of Inquiry theoretical framework: implications for distance education and beyond. In *Handbook of Distance Education* (4th ed., pp. 67–78). Routledge. <https://doi.org/10.4324/9781315296135-6>

- Cobb, D. J. (2020). *Initial teacher education and the development of teacher identity*. Springer.
https://doi.org/10.1007/978-981-13-1179-6_383-1
- Cobb, D. J., Harlow, A., & Clark, L. (2018). Examining the teacher identity-agency relationship through legitimate peripheral participation: A longitudinal investigation. *Asia-Pacific Journal of Teacher Education*, 46(5), 495–510. <https://doi.org/10.1080/1359866X.2018.1480010>
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge.
<https://doi.org/10.4324/978131545653>
- Coker, H. (2018). Purposeful design for online learning: Promoting student engagement through course structure. *Online Learning*, 22(1), 1–15. <https://doi.org/10.24059/olj.v22i1.1217>
- Collins, S. E., Clifasefi, S. L., Stanton, J., et al. (2018). Community-based participatory research (CBPR): Towards equitable involvement of community in psychology research. *American Psychologist*, 73(7), 884–898. <https://doi.org/10.1037/amp000167>
- Conklin, S., & Dikkers, A. G. (2021). Instructor Social Presence and Connectedness in a quick shift from face-to-face to online instruction. *Online Learning*, 25(1), 135–150.
<https://doi.org/10.24059/olj.v25i1.2482>
- Cornell, H. R., Sayman, D., & Herron, J. (2019). Sense of Community in an online graduate program. *Journal of Effective Teaching in Higher Education*, 2(2), 117–132. <https://doi.org/10.36021/jethe.v2i2.52>
- Cossham, A. F. (2017). An evaluation of phenomenography. *Library and Information Research*, 41(125), 17–31. <https://doi.org/10.29173/lirg755>
- Cresswell, J. W., & Guetterman, T.C. (2021). *Educational Research: Planning, conducting, and evaluating quantitative and qualitative research* (6th Ed). Pearson Education Ltd.
- Crotty, M. (2020). *The foundations of social research: meaning and perspective in the research process*. Routledge, Taylor & Francis Group.
- Czerkawski, B. C., & Lyman, E. W. (2016). An instructional design framework for fostering student engagement in online learning environments. *TechTrends*, 60(6), 532–539.
<https://doi.org/10.1007/s11528-016-0110-z>
- Dalongs, D. A., & Fried, J. L. (2016). Creating immediacy using verbal and nonverbal methods. *Journal of Dental Hygiene*, 90(4), 221–225. <https://jdh.adha.org/content/90/4/221.abstrac>
- Daly, N., & Forbes, D. L. (2021). Teaching children’s literature online: Co-constructing stories in a Massive Open Online Course (MOOC). *English Teaching: Practice & Critique*, 20(2), 158–172.
<https://doi.org/10.1108/ETPC-07-2020-0082>
- Daumiller, M., Rinas, R., & Dresel, M. (2020). Teachers’ achievement goals and self-efficacy beliefs: Relations with instructional practices. *Teaching and Teacher Education*, 91, 103046.
<https://doi.org/10.1016/j.tate.2020.103046>
- Dawadi, S., Shrestha, S., & Giri, R. A. (2021). Mixed-methods research: A discussion on its types, challenges, and criticisms. *Journal of Practical Studies in Education*, 2(2), 25–36. <https://doi-org.ezproxy.waikato.ac.nz/10.46809/jpse.v2i2.20>
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2018). *The SAGE handbook of qualitative research* (5th ed.). SAGE.
- De Wever, B., Schellens, T., Valcke, M., & Van Keer, H. (2006). Content analysis schemes to analyze transcripts of online asynchronous discussion groups: A review. *Computers and Education*, 46(1), 6–28. <https://doi.org/10.1016/j.compedu.2005.04.005>

- Dewey, J. (1938). *Experience and Education*. Macmillan.
- Dewstow, R.A. (2006). *Using the Internet to enhance teaching at the University of Waikato*. (Unpublished Master's thesis). University of Waikato, Hamilton, New Zealand.
- Diener, E., & Crandall, R. (1978). *Ethics in social and behavioral research*. University of Chicago Press.
- Doan, T., Rojas, M., & Chen, Y. (2015). Student engagement in online learning: A review of literature. *Online Learning Journal*, 19(4), 1–15.
- Dron, J., & Anderson, T. (2023). Pedagogical paradigms in open and distance education. In O. Zawacki-Richter & I. Jung (Eds.), *Handbook of open, distance and digital education* (pp. 147–163). Springer. https://doi.org/10.1007/978-981-19-2080-6_9
- Dron, J., & Anderson, T. (2014). *Teaching crowds: Learning and social media*. Athabasca University Press. <https://doi.org/10.15215/aupress/9781927356807.01>
- Earl Rinehart, K. (2019). Researchers as poets: Anonymity and fidelity in crafting participant Portraits. *Qualitative Inquiry*, 25(9–10), 862–865. <https://doi.org/10.1177/1077800418787555>
- Education Council, Matatū Aotearoa. (2017). *Our code, our standards: Code of professional responsibility and standards for the teaching profession – Ngā tikanga matatika ngā paerewa: Ngā tikanga matatika mō te haepapa ngaiotanga me ngā paerewa mō te umanga whakaakoranga*. <https://teachingcouncil.nz/professional-practice/our-code-our-standards/>
- Edwards, F. C. E., & Edwards, R. J. (2017). A story of culture and teaching: the complexity of teacher identity formation. *Curriculum Journal (London, England)*, 28(2), 190–211. <https://doi.org/10.1080/09585176.2016.1232200>
- Edwards, R. (2013). What is qualitative interviewing? (J. Holland, Ed.). Bloomsbury. <https://doi.org/10.5040/9781472545244>
- Elliott, V. F. (2023). *Foundations of educational research*. Bloomsbury Academic.
- Eloff, I., O'Neil, S., & Kanengoni, H. (2021). Students' well-being in tertiary environments: insights into the (unrecognised) role of lecturers. *Teaching in Higher Education*, 28(7), 1777–1797. <https://doi-org.ezproxy.waikato.ac.nz/10.1080/13562517.2021.1931836>
- Elsayary, W. A., Alghamdi, A. A., & Alzahrani, M. S. (2024). Exploring student engagement in online learning environments: A systematic review. *Journal of Educational Technology Systems*, 53(1), 45–62. <https://doi.org/10.1177/00472395231156789>
- Ewing, L.A., & Cooper, H. B. (2021). Technology-enabled remote learning during Covid-19: perspectives of Australian teachers, students and parents. *Technology, Pedagogy and Education*, 30(1), 41–57. <https://doi.org/10.1080/1475939X.2020.1868562>
- Farr-Wharton, B., Charles, M. B., Keast, R., Woolcott, G., & Chamberlain, D. (2018). Why lecturers still matter: the impact of lecturer-student exchange on student engagement and intention to leave university prematurely. *Higher Education*, 75(1), 167–185. <https://doi.org/10.1007/s10734-017-0190-5>
- Ferguson, B. T., McKenzie, J., Dalton, E. M., & Lyner-Cleophas, M. (2019). Inclusion, universal design and universal design for learning in higher education: South Africa and the United States. *African Journal of Disability*, 8(1), 1–7. <https://doi.org/10.4102/ajod.v8i0.519>
- Flick, U. (2020). *Introducing research methodology: thinking your way through your research project* (3rd ed.). SAGE.

- Flock, H., Maeda, Y., & Richardson, J. C. (2021). Instructor impact on differences in teaching presence scores in online courses. *International Review of Research in Open and Distance Learning*, 22(3), 55–76. <https://doi.org/10.19173/irrodl.v22i3.5456>
- Flores, M.A. (2016). Teacher education curriculum. In J. Loughran & L. Hamilton (Eds.), *International Handbook of Teacher Education: Volume 1* (1st ed., pp 187-230). Springer Singapore. <https://doi.org/10.1007/978-981-10-0366-0>
- Flores, M. A. (2020). Preparing teachers to teach in complex settings: opportunities for professional learning and development. *European Journal of Teacher Education*, 43(3), 297–300. <https://doi.org/10.1080/02619768.2020.1771895>
- Forbes, D., Daly, N. & Li, L. (2024). *Designing Discussion for Flipped, Blended and Online Courses*. Springer
- Forbes, D.L., Gedera, D., Hartnett, M., Datt, A., & Brown, C. (2023). Sustainable strategies for teaching and learning online. *Sustainability*, 15(17), 13118-. <https://doi.org/10.3390/su151713118>
- Forbes, D.L. (2019). Digital Fluency, In M. Peters (Ed.), *Encyclopedia of Teacher Education*. Springer
- Forbes, D. L. (2012). *Footprints: Participant perspectives informing pedagogy for asynchronous online discussion in initial teacher education*. [Doctoral thesis, University of Waikato]. The University of Waikato. <https://hdl.handle.net/10289/7108>
- Fraser, K., Greenfield, R., & Pancini, G. (2019). Conceptualising student support: From ‘support’ to ‘supportive’. *Studies in Higher Education*, 44(1), 120–134. <https://doi.org/10.1080/03075079.2017.1>
- Garrison, D. R. (2022). Shared metacognition in a community of inquiry. *Online Learning (Newburyport, Mass.)*, 26(1), 6–18. <https://doi.org/10.24059/olj.v26i1.3023>
- Garrison, D. R. (2017). *E-learning in the 21st century: a community of inquiry framework for research and practice* (3rd ed.). Routledge.
- Garrison, D. R., & Arbaugh, J. B. (2007). Researching the community of inquiry framework: Review, issues, and future directions. *The Internet and Higher Education*, 10(3), 157–172. <https://doi.org/10.1016/j.iheduc.2007.04.001>
- Garrison, D. R., Archer, W., & Anderson, T. (2002). *E-learning in the 21st century: a framework for research and practice*. Routledge/Falmer.
- Garrison, D. R., Anderson, T., & Archer, W. (2001). Critical thinking, cognitive presence, and computer conferencing in distance education. *The American Journal of Distance Education*, 15(1), 7–23. <https://doi.org/10.1080/08923640109527071>
- Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education model. *The Internet and Higher Education*, 2(2-3), 87-105. [https://doi.org/10.1016/S1096-7516\(00\)00016-6](https://doi.org/10.1016/S1096-7516(00)00016-6)
- Gedera, D., Forbes, D., Brown, C., Hartnett, M., & Datt, A. (2023). Learning during a pandemic: an Activity Theory analysis of the challenges experienced by Aotearoa/New Zealand university students. *Educational Technology Research and Development*, 71(6), 2271–2295
- Ghalkhani, M., & Khodarahm, M. R. (2020). Designing a New Educational content based on the phenomenography method. *Research in Chemistry Education*, 2(3), 5-18.
- Gibbs, C. J. (2006). *To be a teacher: journeys towards authenticity*. Pearson Education New Zealand. <https://doi.org/10.1007/s11423-023-10284-3>

- Giles, D. (2011). 'Who we are 'and "how we are" are integral to relational experiences: Exploring compartment in teacher education. *The Australian Journal of Teacher Education*, 36(1), 60–72. <https://doi.org/10.14221/ajte.2011v36n9.6>
- Giles, D. L. (2008). *Exploring the teacher-student relationship in teacher education: A hermeneutic phenomenological inquiry* [Doctoral thesis, Auckland University of Technology]. Auckland University of Technology. <https://hdl.handle.net/10292/537>
- Gimpel, G. (2022). Bringing face-to-face engagement to online classes: Developing a high-presence online teaching method. *The Journal of Scholarship of Teaching and Learning*, 22(4). <https://doi.org/10.14434/josotl.v22i4.32702>
- Gleason, B., & Mehta, R. (2022). A pedagogy of care: Critical humanizing approaches to teaching and learning with technology. *Italian Journal of Educational Technology*, 30(1), 4-17.
- Goldstein, L. S. (1998). More than gentle smiles and harm Hugs: Applying the ethic of care to early childhood education. *Journal of Research in Childhood Education*, 12(2), 244–261. <https://doi.org/10.1080/02568549809594888>
- Gonzalez, N., Moll, L. C., & Amanti, C. (2005). *Funds of knowledge: Theorizing practices in households, communities and classrooms* (1st ed.). Erlbaum. <https://doi.org/10.4324/9781410613462>
- Gordon, J. (2017). Creating social cues through self-disclosures, stories, and paralanguage: The importance of modelling high social presence behaviours in online courses. In A. A. Whiteside, J. D. Garrett Dikkers, & K. Swan (Eds.), *Social presence in online learning* (1st ed., pp. 99–112). Routledge. <https://doi.org/10.4324/9781003447023-13>
- Gravett, K., & Winstone, N. (2022). The emotional labour of teaching: A study of university academics' experiences. *Teaching in Higher Education*, 27(1), 1–16. <https://doi.org/10.1080/13562517.2020.1863352>
- Gunawardena, C. N. (1995). Social presence theory and implications for interaction and collaborative learning in computer conferences. *International Journal of Educational Telecommunications*, 1(2), 147–166. Association for the Advancement of Computing in Education (AACE). <https://www.learntechlib.org/primary/p/15156/>
- Gunawardena, C. N., & Zittle, F. J. (1997). Social presence as a predictor of satisfaction within a computer-mediated conferencing environment. *The American Journal of Distance Education*, 11(3), 8–26. <https://doi.org/10.1080/08923649709526970>
- Hagenauer, G., Gläser-Zikuda, M., & Volet, S. E. (2022). University teachers' perceptions of their relationships with students: A qualitative study. *Higher Education*, 83(2), 343–360. <https://doi.org/10.1007/s10734-021-00700-2>
- Hajar, A. (2021). Theoretical foundations of phenomenography: A critical review. *Higher Education Research and Development*, 40(7), 1421–1436. <https://doi-org.ezproxy.waikato.ac.nz/10.1080/07294360.2020.1833844>
- Hamilton, C., & Atkinson, D. (2009). "A story to tell": Learning from the life-stories of older people with intellectual disabilities in Ireland. *British Journal of Learning Disabilities*, 37(4), 316–322. <https://doi.org/10.1111/j.1468-3156.2009.00588.x>
- Han, H. (2013). Do nonverbal emotional cues matter? Effects of video casting in synchronous virtual classrooms. *American Journal of Distance Education*, 27(4), 253–264. <https://doi.org/10.1080/08923647.2013.837718>

- Han, F., & Ellis, R. A. (2019). Using phenomenography to tackle key challenges in science education. *Frontiers in Psychology, 10*, 1414–1414. <https://doi.org/10.3389/fpsyg.2019.01414>
- Harasim, L. (2017). *Learning theory and online technologies* (2nd ed.). Routledge. <https://doi.org/10.4324/9781315716831>
- Harrison, R. (2024). Instructional design for online learning: Challenges and opportunities in a digital era. *Academy of Educational Leadership Journal, 28*(S2), 1–2.
- Hartnett, M., Brown, C., Forbes, D., Gedera, D., & Datt, A. (2023). Enhanced or diminished attitudes: University students' agency. *Computers and Education, 198*, 104773-. <https://doi.org/10.1016/j.compedu.2023.104773>
- Hayes, B., Suleiman, A., & Watling, D. (2024). Students' impression management and self-presentation behaviours via online educational platforms: An archival review. *First Monday, 29*(3). <https://doi.org/10.5210/fm.v29i3.13280>
- Haythornthwaite, C. (2019). Learning, connectivity and networks. *Information and Learning Science, 120*(1/2), 19–38. <https://doi.org/10.1108/ILS-06-2018-0052>
- Hedges, H. (2021). Working theories: Current understandings and future directions. *Early Childhood Folio, 25*(1), 32-37.
- Hill, D. A. (2005). The poetry in portraiture: Seeing subjects, hearing voices, and feeling contexts. *Qualitative Inquiry, 11*(1), 95–105. <https://doi.org/10.1177/1077800404270835>
- Izadinia, M. (2013). A review of research on student teachers' professional identity. *British Educational Research Journal, 39*(4), 694–713. <https://doi.org/10.1080/01411926.2012.679614>
- Jan, S., Vlachopoulos, P., & Parsell, M. (2019). Social network analysis and online learning in communities in higher education: A systematic literature review. *Online Learning, 23*(1), 249–265, <https://doi.org/10.24059/oljv23i1.1398>.
- Kabilo, M., & Nkoane, M. M. (2025). Ubuntu and relational pedagogy in South African higher education. *South African Journal of Higher Education, 39*(1), 112–128. <https://doi.org/10.20853/39-1-5678>
- Kahu, E. R., Nelson, K., & Picton, C. (2024). Student engagement in higher education: A comprehensive framework. *Higher Education Research & Development, 43*(1), 1–15. <https://doi.org/10.1080/07294360.2023.2241234>
- Kahu, E. R., & Picton, C. (2019). The holistic student experience: Exploring engagement from a student perspective. *Higher Education Research & Development, 38*(2), 173–187. <https://doi.org/10.1080/07294360.2018.1516599>
- Kamenarac, O. (2021). A conversation about preservice teacher professional identities within initial teacher education spaces and places. *Early Childhood Folio, 25*(1), 14–19. <https://doi.org/10.18296/ecf.0090>
- Kauppinen, T., Azovskaya, V., Votkin, T., Metsäkoivu, T., Rizzi, T., & Morrell, E. (2024). Humanizing online learning for enhanced engagement and participation. In IFE Conference Proceedings, Libro de Contribuciones, Educational trends, numero 1, Mexico (1 ed., Vol. 2024, pp. 680-685). (Memorias CIIIE). Instituto Tecnológico y de Estudios Superiores de Monterrey.
- Kecskemeti, M. (2011). *A discursive approach to relationship practices in classrooms: An exploratory study* [Doctoral thesis, University of Waikato].
- Kehrwald, B. (2008). Understanding social presence in text-based online learning environments. *Distance Education, 29*(1), 89–106. <https://doi.org/10.1080/01587910802004860>

- Kenny, J. D. (2025). Neoliberalism and the academic profession: The impact on teaching and learning. *Journal of Higher Education Policy and Management*, 47(3), 221–235.
<https://doi.org/10.1080/1360080X.2025.1234567>
- Khairin, F. N., & Ulfah, Y. (2019). Finding the diverse meaning of reality by using phenomenography in accounting education research. In *Proceedings of the Annual International Conference of Business and Public Administration (AICoBPA 2018)* (Vol. 93, pp. 123–130). Atlantis Press.
<https://doi.org/10.2991/AICOBPA-18.2019.23>
- Khoo, E. G. L. (2010). *Developing an online learning community a strategy for improving lecturer and student learning experiences*. [Doctoral thesis, University of Waikato]. University of Waikato. Research commons. <https://hdl.handle.net/10289/3961>
- Knewstubb, B. (2016). The learning-teaching nexus: modelling the learning-teaching relationship in higher education. *Studies in Higher Education (Dorchester-on-Thames)*, 41(3), 525–540.
<https://doi.org/10.1080/03075079.2014.934802>
- Knowles, M. S. (1975). *Self-directed learning: A guide for learners and teachers*. Association Press.
- Kotera, Y., Cockerill, V., Green, P., Hutchinson, L., Shaw, P., & Bowskill, N. (2019). Towards another kind of borderlessness: online students with disabilities. *Distance Education*, 40(2), 170–186.
<https://doi.org/10.1080/01587919.2019.1600369>
- Kumar Basak, S., Wotto, M., & Bélanger, P. (2018). E-learning, M-learning and D-learning: Conceptual definition and comparative analysis. *E-Learning and Digital Media*, 15(4), 191–216.
<https://doi.org/10.1177/2042753018785180>
- Ouyang, F., Zhang, Y., & Wang, Y. (2020). Toward a framework of online learning design for higher education: A review of the literature. *Educational Technology Research and Development*, 68(4), 1981–2019.
<https://doi.org/10.1007/s11423-020-09744-5>
- Lee, W., Carr, M., Soutar, B., & Mitchell, L. (2013). *Understanding the Te Whāriki Approach: Early Years Education in Practice* (1st ed.). Routledge. <https://doi.org/10.4324/9780203075340>
- Li, R. (2021). The role of teacher-student interpersonal relations in flipped learning on student engagement. *Frontiers in Psychology*, 12, 741810–741810.
<https://doi.org/10.3389/fpsyg.2021.741810>
- Li, B., & Wang, Q. (2024). The impact of virtual technology on students' creativity: A meta-analysis. *Computers & Education*, 215, 105044. <https://doi.org/10.1016/j.compedu.2024.105044>
- Littenberg-Tobias, J., & Reich, J. (2020). Evaluating access, quality, and equity in online learning: A case study of a MOOC-based hybrid professional degree program. *The Internet and Higher Education*, 47, 100759-. <https://doi.org/10.1016/j.iheduc.2020.100759>
- Lochmiller, C. R., & Lester, J. N. (2017). *An introduction to educational research: connecting methods to practice*. SAGE.
- Loughran, J. (2006). Developing a pedagogy of teacher education: *Understanding teaching and learning about teaching*. Routledge.
- Lowenthal, P. R. (2012). *Social presence: What is it? How do we measure it?* [Doctoral thesis, University of Colorado Denver]. University of Colorado Denver. <http://search.proquest.com/docview/1014403528>
- Lowenthal, P. R., & Dunlap, J. C. (2018). Investigating students' perceptions of instructional strategies to establish social presence. *Distance Education*, 39(3), 281–298.
<https://doi.org/10.1080/01587919.2018.1476844>

- Lowenthal, P. R., & Mulder, D. (2017). Social presence and communication technologies: Tales of trial and error. In A. A. Whiteside, A. Garrett Dikkers, & K. Swan (Eds.), *Social presence in online learning* (1st ed., pp. 32–44). Routledge. <https://doi.org/10.4324/9781003447023-6>
- Lowenthal, P. R., & Snelson, C. (2017). In search of a better understanding of social presence: An investigation into how researchers define social presence. *Distance Education*, 38(2), 141–159. <https://doi.org/10.1080/01587919.2017.1324727>
- Lutovac, S., & Flores, M. (2021). ‘Those who fail should not be teachers’: Pre-service teachers’ understandings of failure and teacher identity development. *Journal of Education for Teaching*, 47(3), 379–394. <https://doi.org/10.1080/02607476.2021.1903302>
- Macfarlane, A., Macfarlane, S., & Mataiti, H. (2020). Cultural and sociocultural influences and learners with special needs. In M. A. Carsrud & M. S. Garrison (Eds.), *Handbook of educational psychology and students with special needs* (1st ed., pp. 602–624). Routledge. <https://doi.org/10.4324/9781315100654-28>
- Mackey, K. R. M., & Freyberg, D. L. (2010). The effect of social presence on affective and cognitive learning in an international engineering course taught via distance learning. *Journal of Engineering Education (Washington, D.C.)*, 99(1), 23–34. <https://doi.org/10.1002/j.2168-9830.2010.tb01039.x>
- Macmurray, J. (1964). Teachers and pupils. *The Educational Forum*, 29(1), 17–24. <https://doi.org/10.1080/00131726409339304>
- Marra, R. (2006). A review of research methods for assessing content of computer-mediated discussion forums. *Journal of Interactive Learning Research*, 17(3), 243–267.
- Marshall, S., & Love, T. (2025). Building inclusive online learning communities: A framework for equity. *Journal of Online Learning and Teaching*, 21(1), 33–47.
- Martin, F., & Bolliger, D. U. (2022). Engagement matters: Student perceptions on the importance of engagement strategies in the online learning environment. *Online Learning Journal*, 26(1), 1–24.
- Marton, F., & Pong, W. Y. (2005). On the unit of description in phenomenography. *Higher Education Research and Development*, 24(4), 335–348. <https://doi-org.ezproxy.waikato.ac.nz/10.1080/07294360500284706>
- Marton, F. (2000). The structure of awareness. In J. Bowden & E. Walsh (Eds.), *Phenomenography* (pp. 103–116). RMIT University Press.
- Marton, F. (1986). Phenomenography - A research approach to investigating different understandings of reality. *Journal of Thought*, 21(3), 28–49.
- Marton, F., & Booth, S. (1997). *Learning and Awareness* (1st ed.). Routledge. <https://doi.org/10.4324/9780203053690>
- Marton, F., & Pong, W. Y. (2005). On the unit of description in phenomenography. *Higher Education Research and Development*, 24(4), 335–348. <https://doi-org.ezproxy.waikato.ac.nz/10.1080/07294360500284706>
- Massner, H. (2022). The role of empathy in online education: A qualitative study. *Journal of Distance Education*, 43(3), 210–225.
- Mehta, R., & Aguilera, E. (2020). A critical approach to humanizing pedagogies in online teaching and learning. *The International Journal of Information and Learning Technology*, 37(3), 109–120. <https://doi.org/10.1108/IJILT-10-2019-0099>
- Merriam, S.B. (1998). *Qualitative research and case study application in education*. Jossey-Bass

- Mhlongo, T., Dlamini, N., & Zulu, P. (2023). Exploring relational pedagogy in South African universities. *South African Journal of Higher Education*, 37(2), 112–130.
- Ministry of Education. (2020). *Te Ako me te Rautaki Mātauranga Matua 2020–2025: Tertiary Education Strategy*. <https://www.education.govt.nz/our-work/strategies-policies-and-programmes/tertiary-and-further-education/tertiary-education-strategy-tes>
- Ministry of Education. (2018). *Tapasā: Cultural competencies framework for teachers of Pacific learners*.
- Ministry of Education. (2017). *Te Whāriki: He whāriki mātauranga mō ngā mokopuna o Aotearoa: Early childhood curriculum*.
- Ministry of Education. (2011). *Tātaiako cultural competencies for teachers of Māori learners*.
- Moll, L. C., Soto-Santiago, S. L., & Schwartz, L. (2013). Funds of knowledge in changing communities. In K. Hall, T. Cremin, B. Comber, & L. C. Moll (Eds.), *International handbook of research on children's literacy, learning, and culture* (pp. 172–183). John Wiley & Sons. <https://doi.org/10.1002/9781118323342.ch13>
- Moore, M. (1997). Theory of transactional distance. In D. Keegan (Ed.), *Theoretical principles of distance education* (pp. 22–38). Routledge
- Morrison, L., & Jacobsen, M. (2023). The role of feedback in building teaching presence and student self-regulation in online learning. *Social Sciences & Humanities Open*, 7(1), 100503-. <https://doi.org/10.1016/j.ssaho.2023.100503>
- Murtonen, M., & Vilppu, H. (2020). University students' epistemic beliefs and conceptions of learning. *Scandinavian Journal of Educational Research*, 64(2), 243–257. <https://doi.org/10.1080/00313831.2018.1544196>
- Mutch, C. (2013). *Doing educational research: a practitioner's guide to getting started* (2nd ed.). NZCER Press.
- Ndebele, C. (2022). Reimagining student–lecturer relationships through African philosophies. *Journal of Higher Education in Africa*, 20(2), 89–104.
- Neuman, W. (1994). *Social research methods: qualitative and quantitative approaches* (2nd ed.). Allyn and Bacon.
- New Zealand Qualifications Authority. (2021). *Education (Pastoral Care of Tertiary and International Learners) Code of Practice 2021*. <https://www2.nzqa.govt.nz/assets/Tertiary/The-Code/pastoral-care-code-of-practice-2021-english.pdf>
- Noddings, N. (2013). *Caring: A relational approach to ethics & moral education* (2nd ed., updated). University of California Press. <https://doi.org/10.1525/9780520957343>
- Noddings, N. (1992). In defence of caring. *The Journal of Clinical Ethics*, 3(1), 15–18. <https://doi.org/10.1086/JCE199203103>
- Noddings, N. (1984). *Caring: A feminine approach to ethics and moral education*. University of California Press.
- Norsworthy, B. E. (2008). *Being and Becoming Reflexive in teacher Education* [Doctoral dissertation, The University of Waikato].
- Nyysti, K., & Walters, K. (2018). Out of isolation: Building online higher education engagement. In K. Walters & P. Henry (Eds.), *Fostering effective student communication in online graduate courses* (pp. 226–239). IGI Global. <https://doi.org/10.4018/978-1-5225-2682-7.ch010>

- Oh, C. S., Bailenson, J. N., & Welch, G. F. (2018). A systematic review of social presence: Definition, antecedents, and implications. *Frontiers in Robotics and AI*, 5, 114–114. <https://doi.org/10.3389/frobt.2018.00114>
- Olsen, B. (2008). How reasons for entry into the profession illuminate teacher identity development. *Teacher Education Quarterly (Claremont, Calif.)*, 35(3), 23–40.
- Olsen-Reeder, V. I. (2022). Dual-mode teaching in the language classroom: Reconciling the pandemic, equity, and the future of quality language teaching pedagogy. *New Zealand Journal of Educational Studies*, 57(2), 335–349. <https://doi.org/10.1007/s40841-022-00258-z>
- O’Neill, J. (2019). Teachers and ethics. In M. Hill & M. Thrupp (Eds.), *The professional practice of teaching in New Zealand* (6th ed., pp. 273-290). Cengage Learning.
- Ornek, F. (2008). An overview of a theoretical framework of phenomenography in qualitative education research: An example from physics education research. *Asia-Pacific Forum on Science Learning and Teaching*, 9(2), 15.
- Ouyang, F., Chang, Y.-H., Scharber, C., Jiao, P., & Huang, T. (2020). Examining the instructor-student collaborative partnership in an online learning community course. *Instructional Science*, 48(2), 183–204. <https://doi.org/10.1007/s11251-020-09507-4>
- Ouyang, F., Zhang, Y., & Wang, Y. (2020). Toward a framework of online learning design for higher education: A review of the literature. *Educational Technology Research and Development*, 68(4), 1981–2019. <https://doi.org/10.1007/s11423-020-09744-5>
- Oyarzun, B., Hancock, C., Salas, S., & Martin, F. (2021). Synchronous meetings, community of inquiry, COVID-19, and online graduate teacher education. *Journal of Digital Learning in Teacher Education*, 37(2), 111–127.
- Oyarzun, B., & Martin, F. (2023). A systematic review of research on online learner collaboration from 2012-21: Collaboration technologies, design, facilitation, and outcomes. *Online Learning*, 27(1), 71-106.
- Öztoğ, M. (2020). Sociocultural production of self: Social presence and social absence. In *The Hidden Curriculum of Online Learning* (1st ed., pp. 83–105). Routledge. <https://doi.org/10.4324/9780429284052-5>
- Öztoğ, M. (2019). To be or not to be: Social justice in networked learning. *Education Sciences*, 9(4), 261-. <https://doi.org/10.3390/educsci9040261>
- Oztoğ, M. (2014, October 22–24). *Social presence and social absence: Socio-cultural production of self in online learning environments*. Paper presented at Internet Research 15: The 15th Annual Meeting of the Association of Internet Researchers, Daegu, Korea. Association of Internet Researchers. <https://spir.aoir.org/ojs/index.php/spir/article/view/8874>
- Öztoğ, M., & Kehrwald, B. A. (2017). Social presence reconsidered: Moving beyond, going back, or killing social presence. *Distance Education*, 38(2), 259-266.
- Pacansky-Brock, M., Smedshammer, S., & Vincent-Layton, K. (2022). Humanizing online teaching to promote student success. *Online Learning Journal*, 26(1), 159–178.
- Pacansky-Brock, M., Smedshammer, M., & Vincent-Layton, K. (2020). Humanizing online teaching to equitize higher education. *Current Issues in Education*, 21(2). <https://cie.asu.edu/ojs/index.php/cieatasu/article/view/1905>
- Pal, R. (2025). Digital pedagogy and student-centered learning in higher education. *International Journal of Educational Technology*, 45(1), 56–70.

- Palloff, R., & Pratt, K. (2005). *Collaborating online: Learning together in community*. Jossey Bass
- Palmer, P. J. (2017). *The Courage to Teach: Exploring the Inner Landscape of a Teacher's Life* (3rd ed.). Wiley.
- Palmer, P. J. (2007). *The courage to teach: exploring the inner landscape of a teacher's life* (10th anniversary ed.). Jossey-Bass.
- Palmer, P. J. (2003). Teaching with heart and soul: Reflections on spirituality in teacher education. *Journal of Teacher Education* 54 (5): 376–385.
- Palmer, P. J. (2000). *Let your life speak: listening for the voice of vocation*. Jossey-Bass.
- Palmer, P. J. (1998). *The courage to teach: exploring the inner landscape of a teacher's life* (1st ed.). Jossey-Bass.
- Parker, N., Mahler, B. P., & Edwards, M. (2021). Humanizing online learning experiences. *The Journal of Educators Online*, 18(2). <https://doi.org/10.9743/JEO.2021.18.2.1>
- Patara, L. (2012). Integrating culturally responsive teaching and learning pedagogy in line with Ka Hikitia. *Set: Research information for teachers*, (2), 49-52.
- Patel, N. (2021). Establishing social presence for an engaging online teaching and learning experience. *International Journal of TESOL Studies*, 3(1), 162–178. <https://doi.org/10.46451/ijts.2021.03.04>
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: integrating theory and practice* (4th ed.). SAGE.
- Peters, S. (2009). Supporting the transition from early childhood education to school: insights from one Centre of Innovation project. *Set: Research Information for Teachers (Wellington)*, (3), 4–10. <https://doi.org/10.18296/set.0479Picacani>
- Picciano, A. G. (2002). Beyond student perceptions: Issues of interaction, presence and performance in an online course. *Journal of Asynchronous Learning Networks*, 6(1), 21-40.
- Plante, K., & Asselin, M. (2014). Best practices for creating social presence and caring behaviors online. *Nursing Education Perspectives*, 35(4), 219–223. doi: 10.5480/13-1094.1
- Potts, A. & Stebletsova, G. (2021). Learning Through Lockdown. *Southern Institute of Technology Journal of Applied Research*, 13(1), Article 1. doi: 10.34074/sitj.13101
- Pregowska, A., Masztalerz, K., Garlińska, M., & Osial, M. (2021). A worldwide journey through distance education—from the post office to virtual, augmented and mixed realities, and education during the covid-19 pandemic. *Education Sciences*, 11(3), 118. <https://doi.org/10.3390/educsci11030118>
- Pring, R. (2007). Reclaiming philosophy for educational research. *Educational Review (Birmingham)*, 59(3), 315–330. <https://doi.org/10.1080/00131910701427330>
- Punch, K. F., & Oancea, A. (2014). *Introduction to research methods in education* (2nd ed.). SAGE.
- Quality Assurance Agency for Higher Education. (2020). *Guidance on digital assessment: QAA advice and guidance*. <https://www.qaa.ac.uk/docs/qaa/guidance/guidance-on-digital-assessment.pdf>
- Quinlan, K. M. (2016). Enhancing student engagement through the teacher-student relationship. *Higher Education*, 74(5), 611–625. <https://doi.org/10.1007/s10734-016-0073-z>
- Rabin, C. (2021). Care ethics in online teaching. *Studying Teacher Education*, 17(1), 38–56. <https://doi.org/10.1080/17425964.2021.1902801>

- Rātima, M. T., Smith, J. P., Macfarlane, A. H., Riki, N. M., Jones, K.-L., & Davies, L. K. (2022). *Ngā Hau e Whā o Tāwhirimātea: Culturally responsive teaching and learning for the tertiary sector*. Canterbury University Press
- Rehman, A. A., & Alharthi, K. (2016). An introduction to research paradigms. *International Journal of Educational Investigations*, 3(1), 51–59.
- Rekha, A. P. (2024). The learning management system and student learning effectiveness: A systematic literature review. *Journal of Educational Technology Systems*, 53(2), 145–162.
- Rimm-Kaufman, S. E., Baroody, A. E., Larsen, R. A., Curby, T. W., & Abry, T. (2015). To what extent do teacher-student interaction quality and student gender contribute to fifth graders' engagement in mathematics learning? *Journal of educational psychology*, 107(1), 170.
- Robinson, C., & Hullinger, H. (2008). New benchmarks in higher education: Student engagement in online learning. *Journal of Education for Business*, 84(2), 101–109. <https://doi.org/10.3200/JOEB.84.2.101-109> [www.scirp.org]
- Robinson, D., & Hope, M. (2022). Building trust in online learning environments: A relational approach. *Online Learning Journal*, 26(1), 45–60. <https://doi.org/10.24059/olj.v26i1.2567>
- Rodrigues, F., & Mogarro, M. J. (2019). Student teachers' professional identity: A review of research contributions. *Educational Research Review*, 28, 100286. <https://doi.org/10.1016/j.edurev.2019.100286>
- Rogoff, B. (2003). *The cultural nature of human development*. Oxford University Press.
- Rogoff, B. (1995). Observing activity on three planes: Participatory appropriation, guided participation, and apprenticeship. In J.V. Wertsch, P. del Rio, & A. Alvarez (Eds.), *Sociocultural studies of mind* (pp. 139-164). Cambridge University Press.
- Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context*. Oxford University Press.
- Rogoff, B. (1994). Developing understanding of the idea of communities of learners. *Mind, Culture, and Activity*, 1(4), 209-229. doi: 10.1080/10749039409524673
- Rokx, M. (2022). Online netiquette | Manaakitanga. In A. Card, R. Merry & J. Carroll-Lind (Eds.), *Bicultural principles of teaching and learning online - Ngā mātāpono kākano rua o te mahi ako tuihono* (pp.61-66). NZCER Press.
- Russell, T., & Martin, A. K. (2016). Exploring the complex concept of quality in teacher education. In J. Loughran & M. L. Hamilton (Eds.), *International handbook of teacher education* (Vol. 2, pp. 143–180). Springer. https://doi.org/10.1007/978-981-10-0369-1_5
- Rush, P. (2015). Isolation and Connection: The Experience of Distance Education. *International Journal of E-Learning & Distance Education Revue Internationale Du E-Learning Et La Formation à Distance*, 30(2). <https://eric.ed.gov/?id=EJ1101014>
- Ruth, S. (2018). Faculty opposition to online learning: Challenges and opportunities. *International Journal of Technology in Teaching and Learning*, 14(1), 12-23.
- Santrock, J. W. (2019). *Life-span development* (17th ed., international student edition). McGraw-Hill Education.
- Savage, C., Macfarlane, S., Macfarlane, A., Fickel, L., & Te Hēmi, H. (2014). Huakina Mai: A kaupapa Māori approach to relationship and behaviour support. *The Australian Journal of Indigenous Education*, 43(2), 165-174.

- Scotland, J. (2012). Exploring the philosophical underpinnings of research: Relating ontology and epistemology to the methodology and methods of the scientific, interpretive, and critical research paradigms. *English Language Teaching (Toronto)*, 5(9), 9–16. <https://doi.org/10.5539/elt.v5n9p9>
- Sekulich, D. (2020). Rethinking student engagement: A critical perspective. *Journal of Higher Education Theory and Practice*, 20(6), 45–52.
- Sekulich, K. M. (2020a). Developing an online community of learners. *The Delta Kappa Gamma Bulletin International Journal for Professional Educators*, 86(5), 17-22.
- Sewell, A., Smith, J., & Kennedy, M. (2019). A community of learners: creating a culture of learning together. In M. Hill & M. Thrupp (Eds.), *The professional practice of teaching in New Zealand* (6th ed., pp. 47-68). Cengage Learning.
- Short, J. E., Williams, E., & Christie, B. (1976). *The Social Psychology of Telecommunications*. Wiley
- Singh, V., & Thurman, A. (2019). How many ways can we define online learning? A systematic literature review of definitions of online learning (1988-2018). *American Journal of Distance Education*, 33(4), 289-306.
- Sjöström, B., & Dahlgren, L. O. (2002). Applying phenomenography in nursing research. *Journal of Advanced Nursing*, 40(3), 339–345. <https://doi.org/10.1046/j.1365-2648.2002.02375.x>
- Stake, R.E. (2005). Qualitative case studies. In N. K. Denzin and Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed.). (pp. 443-466). Sage Publications, Inc.
- Stenbom, S. (2018). A systematic review of the Community of Inquiry survey. *The Internet and Higher Education*, 39, 22–32. <https://doi.org/10.1016/j.iheduc.2018.06.001>
- Stolz, S. A. (2020). Phenomenology and phenomenography in educational research: A critique. *Educational Philosophy and Theory*, 52(10), 1077–1096. <https://doi-org.ezproxy.waikato.ac.nz/10.1080/00131857.2020.1724088>
- Stone, C. (2019). Online learning in Australian higher education: Opportunities, challenges and transformations. *Student Success*, 10(2), 1–11. <https://doi.org/10.5204/ssj.v10i2.1299>
- Stone, C., & Springer, M. (2019). Interactivity, connectedness and 'teacher-presence': Engaging and retaining students online. *Australian Journal of Adult Learning*, 59(2), 146–169.
- Suarez, V., & McGrath, J. (2022). *Teacher professional identity: How to develop and support it in times of change* (OECD Education Working Papers No. 267). OECD Publishing. <https://doi.org/10.1787/b19f5af7-en>
- Sundani, M., Ali, S., & Khan, R. (2021). Emotional intelligence and student–teacher relationships in higher education. *Journal of Educational Psychology*, 113(4), 789–803. <https://doi.org/10.1037/edu0000456>
- Svihus, C. L. (2024). Online teaching in higher education during the COVID-19 pandemic. *Education and Information Technologies*, 29(3), 3175-3193.
- Swan, K. (2017). Understanding social presence as technology facilitated. In A. Whiteside, A. Dikkers & K. Swan (Eds.), *Social presence in online learning: multiple perspectives on practice and research* (1st ed pp. 29-31). Stylus Publishing.
- Swan, K. (2019). Social construction of knowledge and the Community of Inquiry Framework. In I. Jung (Ed.), *Open and Distance Education Theory Revisited: Implications for the Digital Era* (1st ed, pp. 57-66). Springer Singapore Pte. Limited. <https://doi.org/10.1007/978-981-13-7740-2>

- Swan, K., & Shih, L. F. (2005). On the nature and development of social presence in online course discussions. *Journal of Asynchronous Learning Networks*, 9(3), 115–136. <https://doi.org/10.24059/olj.v9i3.1788>
- Tate, T., & Warschauer, M. (2022). Equity in online learning. *Educational Psychologist*, 57(3), 192–206. <https://doi.org/10.1080/00461520.2022.2062597>
- Tesar, M. (2020). Towards a post-Covid-19 ‘new normality?’: Physical and social distancing, the move to online and higher education. *Policy Futures in Education*, 18(5), 556–559. <https://doi.org/10.1177/1478210320935671>
- Toland, M. D., De Ayala, R. J., & Johnson, T. R. (2014). A multilevel factor analysis of student engagement. *Journal of Psychoeducational Assessment*, 32(7), 588–601.
- Tolich, M., & Davidson, C. (Eds.). (2018). *Social science research in New Zealand*. Auckland University Press.
- Tomlinson, C. A. (2017). *How to differentiate instruction in academically diverse classrooms* (3rd ed.). ASCD.
- Tormey, R. (2021). The role of teacher-student relationships in higher education: A review of the literature. *Teaching in Higher Education*, 26(7–8), 862–878. <https://doi.org/10.1080/13562517.2019.1696301>
- Turk, M., Heddy, B. C., & Danielson, R. W. (2022). Teaching and social presences supporting basic needs satisfaction in online learning environments: How can presences and basic needs happily meet online? *Computers and Education*, 180, 104432. <https://doi.org/10.1016/j.compedu.2022.104432>
- Varis, S., Heikkilä, M., Metsäpelto, R.-L., & Mikkilä-Erdmann, M. (2023). Finnish pre-service teachers’ identity development after a year of initial teacher education: Adding, transforming, and defending. *Teaching and Teacher Education*, 135, 104354-. <https://doi.org/10.1016/j.tate.2023.104354>
- Vistisen, L., & Jensen, A. (2021). Designing for student engagement in online learning: A participatory approach. *Educational Design Research*, 4(2), 78–95.
- Vizek Vidovic, V., & Domovic, V. (2019). Development of teachers’ beliefs as a core component of their professional identity in initial teacher education: a longitudinal perspective. *CEPS Journal*, 9(2), 119–138. <https://doi.org/10.26529/cepsj.720>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Walsh, E. (2000). Phenomenographic analysis of interview transcripts. In J. Bowden & E. Walsh (Eds.), *Phenomenography* (pp. 19-33). RMIT University Press.
- Wang, Y., Stein, D., & Shen, S. (2021). Students’ and teachers’ perceived teaching presence in online courses. *Distance Education*, 42(3), 373–390. <https://doi.org/10.1080/01587919.2021.1956304>
- Wegerif, R. (1998). The social dimension of asynchronous learning networks. *Journal of Asynchronous Learning Networks*, 2(1), 34–49. <https://doi.org/10.24059/olj.v2i1.1928>
- Wenger, E. (1998). *Communities of practice: learning, meaning, and identity*. Cambridge University Press.
- Whaanga, J. (2022). Think before you type | Māharahara. In A. Card, R. Merry & J. Carroll-Lind (Eds.), *Bicultural principles of teaching and learning online - Ngā mātāpono kākano rua o te mahi ako tuihono* (pp. 55-60). NZCER Press.
- Whiteside, A. (2017). Understanding social presence as a critical literacy: introduction to part four. In A. Whiteside, A. Dikkers & K. Swan (Eds.), *Social presence in online learning: multiple perspectives on practice and research* (1st ed pp. 113-142). Stylus Publishing.

- Whitfield, M. M., Mimirinis, M., Macdonald, D., Klein, T., & Wilson, R. (2023). Phenomenographic Approaches in Research About Nursing. *Global Qualitative Nursing Research*, 10, 23333936231212281–23333936231212281. <https://doi.org/10.1177/23333936231212281>
- World Health Organization. (2025). Coronavirus disease (COVID-19) pandemic. *World Health Organization*. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- Wood, R. (2017). *The influence of teacher-student relationships and feedback on students' engagement with learning*. Cambridge Scholars Publishing.
- Xie, C., Li, C., Sung, S. H., & Jiang, R. (2022). Engaging students in distance learning of science with remote labs 2.0. *IEEE Transactions on Learning Technologies*, 15(1), 1–1. <https://doi.org/10.1109/TLT.2022.3153005>
- Yao, J., & Ling, G. (2020). Online learning engagement: A study of Chinese university students. *Journal of Educational Technology*, 17(3), 45–59.
- Yates, A., Starkey, L., Egerton, B., & Flueggen, F. (2021). High school students' experience of online learning during Covid-19: the influence of technology and pedagogy. *Technology, Pedagogy and Education*, 30(1), 59–73. <https://doi.org/10.1080/1475939X.2020.1854337>
- Yildiz, S. (2009). Social presence in the web-based classroom: Implications for intercultural communication. *Journal of Studies in International Education*, 13(1), 46–65. <https://doi.org/10.1177/1028315308317654>
- Zengilowski, A., Lee, J., Gaines, R. E., Park, H., Choi, E., & Schallert, D. L. (2023). The collective classroom “we”: The role of students' sense of belonging on their affective, cognitive, and discourse experiences of online and face-to-face discussions. *Linguistics and Education*, 73, 101142.
- Zhong, Q. M., & Norton, H. (2019). Exploring the roles and facilitation strategies of online peer moderators. *Sisal Journal*, 10(4), 379–400. <https://doi.org/10.37237/100405>
- Zhu, M., Bonk, C. J., & Doo, M. Y. (2020). Self-directed learning in MOOCs: Exploring the relationships among motivation, self-monitoring, and self-management. *Educational Technology Research and Development*, 68, 2073-2093.
- Zimmerman, T. D., & Nimon, K. (2017). The online student connectedness survey: Evidence of initial construct validity. *International Review of Research in Open and Distance Learning*, 18(3), 25–46. <https://doi.org/10.19173/irrodl.v18i3.2484>

Appendices

Appendix A: Permission letter

Dear ...

As you are aware, I am currently studying for my PhD at The University of Waikato. The working title for my study is 'Keeping Connected: How pre-service teachers perceive relationships between teacher educators and pre-service teachers in an online early childhood initial teacher education programme in Aotearoa/New Zealand.'

In this research project I will be exploring ways of 'humanising relationships' in an online early childhood initial teacher education programme. I will focus on how digital technologies might foster positive, caring relationships between initial teacher education educators and pre-service teachers that reflect the aspirations of the Aotearoa/New Zealand early childhood curriculum. I also want to consider how experiencing such relationships can influence and contribute to beginning teacher identity and pedagogy.

I hope that my findings will contribute to the continuing development of the Graduate Diploma of Teaching - ECE and online initial teacher education programmes in general.

I seek your permission as Associate Director of early childhood/ Chair of Professional Studies Department/ Associate Dean of Education, to work with fulltime students enrolled in the 2015 intake of students in the Grad Dip T –ECE.

This research would involve up to 10 pre-service teachers participating in two interviews at the beginning and end of the year (45minutes in duration) and one focus group at the end of the year (60 minutes in duration). Participants will also be asked to have comments that they have contributed to online noticeboards and other digital technologies used in the programme throughout the year used as data. The interviews and focus group will be facilitated by Google Hangouts. These interviews will be conducted by an independent interviewer to mitigate issues of a conflict of interest between myself, as a lecturer and coordinator of the programme, and the pre-service teachers. It is also anticipated that participants will spend up to one hour reading and checking transcripts of the interviews and focus group.

All participants are anonymous. Participation is voluntary and participants can decline to answer questions and have the right to withdraw from the study any time until they have agreed their

transcripts from the interviews. Any data collected in the focus group will not be able to be reviewed or withdrawn by the participants. All data will be treated confidentially and stored securely. The primary use of the data will be to contribute to my PhD. Data may also be used in seminars, and/or conference presentations, publications and research and teaching periodicals

I have attached a copy of the general research questions and look forward to hearing from you.

If you have any queries, please contact me.

Yours sincerely

Sara Archard

Appendix B: Participant information sheet

Dear students,

I am currently enrolled in a PhD called 'Keeping Connected: How pre-service teachers perceive relationships between teacher educators and pre-service teachers in an online early childhood initial teacher education programme in Aotearoa/New Zealand.

In this research project I will be exploring ways of 'humanising relationships' in an online early childhood initial teacher education programme. I want to focus on how digital technologies might foster positive, caring relationships between initial teacher education educators and pre-service teachers that reflect the aspirations of the Aotearoa/New Zealand early childhood curriculum. I also want to consider how experiencing such relationships can influence and contribute to beginning teacher identity and pedagogy.

The purpose of this letter is to invite you to participate in this research and to tell you how the research will proceed and how the information from the research will be used.

Your participation in the research would involve you taking part in two interviews at the beginning end of the year and one focus group of approximately five people at the end of the year. The interviews will last up to 45 minutes in duration and the focus group up to one hour. You would also be agreeing to have comments posted in online noticeboards throughout the year used as data. All interviews and the focus group will be undertaken by myself as the researcher, and I will record and transcribe the data. Later you will have an opportunity to read the transcript of the interviews and make any amendments to what you said. It is anticipated that you will spend up to one hour in total reading and checking transcripts of the collected data. The interviews and focus group would be arranged at time convenient for you and facilitated via Skype.

Please let me reassure you that participation is voluntary, and you can decline to answer questions and have the right to withdraw from the study without any explanation at any time until you have the have approved your transcripts from the interviews. Please note that any data collected in the focus group cannot be reviewed or withdrawn.

All data will be treated confidentially and stored securely. The primary use of the data will be to contribute to my PhD. Data may also be used in seminars, and/or conference presentations, publications and research and teaching periodicals

The research has been approved by the University of Waikato, Faculty of Education Research Ethics Committee.

If you would like to participate in this research, please indicate your interest by completing the following part of the form. Once expressions of interest have been collected, and if you have been selected for participation, you will then be asked to sign an informed consent form.

If you would like to participate in this project, please print your name below and rate your current thoughts about developing professional relationships on the following scale.

.....(Name)

Please rate yourself on the scale below (by placing a cross) in terms of your current thoughts about how you might develop professional relationships in online environments

Difficult to establish

unsure

easy to establish

If you would like further information about this research, please do not hesitate in contacting me.

My details are:

Sara Archard

Faculty of Education

The University of Waikato

Private Bag 3105

Hamilton 3240, New Zealand

e-mail: sarchard@waikato.ac.nz Phone (07) 838 4500 Ext 7777

My supervisors' details are:

Nicola Daly

Faculty of Education

The University of Waikato

Private Bag 3105

Hamilton 3240, New Zealand

e-mail: nicolad@waikato.ac.nz Phone (07) 838 4500 Ext 4298

Dianne Forbes

Faculty of Education

The University of Waikato

Private Bag 3105

Hamilton 3240, New Zealand

e-mail: diforbes@waikato.ac.nz Phone (07) 838 4500 Ext 7844

Thank you for taking the time to read this information sheet.

Kind regards

Sara Archard

Appendix C: Participant informed consent form

'Keeping Connected: How pre-service teachers perceive relationships between teacher educators and pre-service teachers in an online early childhood initial teacher education programme in Aotearoa/New Zealand.'

Contact:

Sara Archard

Faculty of Education

University of Waikato

e-mail: sarchard@waikato.ac.nz Phone (07) 838 4500 Ext 7777

Name (Please print clearly) _____

- I have read the participant information sheet and understand the purpose of this project.
- I understand that participation in this research means that
- I will be asked to participate in two recorded interviews and one focus group about my knowledge and experiences.
- Contributions I make in online notice boards (discussion forums) and other digital technologies used in the programme may be collected and used as data in this research.
- I will have the opportunity to review a transcript of each interview and the focus group and to request changes to anything I said.
- My participation is voluntary, and I can withdraw from this project at any time up until I have agreed the transcript from the interviews.
- I cannot review or withdraw any contributions I make from the focus group.

Access to recordings/transcripts of the interviews and focus group discussions will be restricted to Sara Archard as the researcher, and Nicola Daly and Dianne Forbes in their capacity as the research supervisors.

I understand that ethical approval for this research has been received from The University of Waikato, Faculty of Education Research Ethics Committee and that if I have any concerns regarding this project, I can contact Sara at the above contact details. If I want to talk about concerns to someone else in the university, I can contact Dr Nicola Daly at nicolad@waikato.ac.nz (07) 838 4466 Ext. 4298 or Dianne Forbes at diforbes@waikato.ac.nz (07) 838 4466 Ext. 7844

I agree to take part in this research.

Name: _____

Signed: _____

Date: _____

Appendix D: Semi-structured interview questions

Interview 1

1. Thinking back to your previous study tell me about your lecturers without naming them. Was there one you felt closer to than others? Which was your favourite and why? How would you describe your professional relationship with them?
2. Still thinking about your previous study, in what ways did relationships with your lecturers matter to you?
3. What is your experience of online learning?
4. In what ways do you think relationships with your lecturers might matter to you in an online programme?
5. Describe how you think you might experience relationships with your lecturers in the programme. Think about how you might see, feel and hear feel relationships in the online learning environment. Prompts: What symbolises your professional relationships? What do you picture when you think of professional relationships?
6. Describe any plus, minus and interesting points that you think might impact on these relationships due to learning online at a distance?
7. What does the term 'being human' mean to you?
8. How do you think lecturers in this programme might show they are human?
9. In what ways do you feel that digital technologies might help your lecturers show they are human?
10. How do you feel that your experiences of professional relationships with your lecturers in the programme will influence your teaching practice at all? If so, how? Prompt: curriculum, relationships they might have with children and families.

Interview 2

1. Now that you are at the end programme, without naming them, tell me about your favourite lecturers in the programme? Why do you feel you relate to them? Are there any lecturers you find it hard to relate to? What are some of the reasons for this? How would you describe your professional relationship with them?
2. Describe how you think you have experienced relationships with your lecturers in the programme. Think about how you might see, feel and hear feel relationships in the online learning environment.

Prompts: What symbolises your professional relationships? What do you picture when you think of professional relationships?

3. Has anything changed since we last met about in what ways you feel relationships matter in the programme?

4. Do you think you have formed a professional relationship with your lecturers? If so, in what ways?

5. What, if anything, are some factors that are helping to support a professional relationship with your lecturers?

6. Describe any plus, minus and interesting points you have experienced that have impacted on these relationships due to learning online at a distance?

7. Thinking back to your original definition of 'being human' has anything changed in your understanding?

8. How have your lecturers in this programme shown they are human?

9. In what ways do you feel that digital technologies have enabled your lecturers show they are human?

10. At the end of the programme do you feel that your experiences of professional relationships with your lecturers in the programme will influence your teaching practice at all? If so, how? Prompt: curriculum, relationships they might have with children and families.

Appendix E: Focus group questions

Research title: Keeping Connected: How pre-service teachers perceive relationships between teacher educators and pre-service teachers in an online early childhood initial teacher education programme in Aotearoa/New Zealand

These are some initial questions to start the focus groups and prompt the conversation.

1. Now that you are at the end programme, without naming them, tell me about your favourite lecturers in the programme? Why do you feel you relate to them? Are there any lecturers you find it hard to relate to? What are some of the reasons for this? How would you describe your professional relationship with them?
2. Do you think you have formed a professional relationship with your lecturers? If so, in what ways?
3. What, if anything, are some factors that are helping to support a professional relationship with your lecturers?
4. Describe any negatives, challenges and positives you have experienced that have impacted on these relationships due to learning online at a distance?
5. Thinking back to your original definition of 'being human' in your individual interviews, as a group consider has anything changed in your understanding?
6. How have your lecturers in this programme shown they are human?
7. In what ways do you feel that digital technologies have enabled your lecturers show they are human?
8. At the end of the programme do you feel that your experiences of professional relationships with your lecturers in the programme will influence your teaching practice at all? If so, how? Prompt: curriculum, relationships they might have with children and families.