

Application of knowledge: an exploration of CPD through the LINC programme

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M.A in Learning and Teaching
2019

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Acknowledgements

This research study would not have happened without the contributions of a wide variety of people, and I would like to take this opportunity to acknowledge and thank you.

I would like to express my sincere thanks to the early childhood professionals who agreed to become participants for this study.

I would like to thank my supervisor Dr Meera Oke for her insight and guidance, and calming presence.

To my work colleagues, Bernie, Claire, Edel, Paula and Tash thank you for being there to brainstorm, and for your unconditional support.

Finally, a most special thanks to my closest family, Kris, Callum and Rowan who have supported me in many ways, particularly Kris for taking on the role of critical friend when I needed it.

Abstract

This study set out to explore the experiences of early childhood teachers who have completed the Leadership for INClusion in the early years (LINC) programme in order to understand how it has impacted their ECEC practice in terms of supporting their application of knowledge. Current European research and discourse in relation to CPD within ECEC identifies its potential to support provision of high quality ECEC practice when the content, form and characteristics of the CPD are innovative and enable early childhood teachers to apply knowledge in their own practice.

Six participants' experiences were captured through semi-structured interviews and analysed using thematic analysis as part of Interpretative Phenomenological Analysis methodological approach. Four themes emerged from the analysis: Making theory real, Learning as a social process, Reinforcing child-centred values and strategies, and Extending inclusive values, attitudes and beliefs.

The findings show that the LINC programme provided a blended learning format and content that built participants knowledge, practice and values in the areas of inclusion and child-centred practice. The reflective processes built into the online design supported participants with combining theory within their daily ECEC practice. Participants identified that opportunities for reflecting and engaging in discourse within communities of practice during both online and face to face elements of the CPD were significant in supporting them to combine knowledge.

This led to Participants forming specialised professional knowledge as they applied it in their ECEC practice. This resulted in a growing practical wisdom in making decisions on how to do things to benefit the children, families and team within their ECEC setting, which contributes to high-quality ECEC provision.

The knowledge generated from these findings is valuable to the ECEC sector in terms of understanding the characteristics, content and form of CPD that support high quality ECEC provision.

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List of Abbreviations and Acronyms

AIM	Access and Inclusion Model
CECDE	Centre for Early Childhood Development and Education
COI	Community of Inquiry
COP	Communities of Practice
CoRe	Competence Requirements in Early Childhood Education and Care
CPD	Continuing Professional Development
DCYA	Department of Children and Youth Affairs
DES	Department of Education and Skills
ECCE	DCYA Early Childhood Care and Education Programme ('free pre-school years')
ECEC	Early Childhood Education and Care
ECI	Early Childhood Ireland
EFQ	European Quality Framework
FE	Further Education
HE	Higher Education
INCO	Inclusion CO-ordinator
IPA	Interpretative Phenomenological Analysis
LINC	Leadership for INClusion in the Early Years
MIC	Mary Immaculate College
NCI	National College of Ireland
NFQ	National Framework of Qualifications
NGO	A non-profit organisation operating independently of any government.
NCCA	National Council for Curriculum and Assessment
NUIM	National University of Ireland, Maynooth

Terminology

AIM	A seven level Access and Inclusion Model providing government funded supports aimed at supporting the inclusion of children with additional needs participating in the ECCE programme.
Aistear, The Early Childhood Curriculum Framework	National curriculum framework for all children from birth to six years old in Ireland. First published by the NCCA in 2009.
Early Childhood Teachers	Staff working in ECEC settings providing early education and care to children prior to commencing compulsory primary education.
ECEC Setting	Settings providing early education and care to children prior to commencing compulsory primary education.
INCO	Inclusion Coordinators are graduates of the LINC programme and have a role in coordinating the inclusion of children with additional needs in ECEC settings through the seven levels of AIM.
LINC	Leadership for INclusion in the Early Years Programme is a one-year Level 6 Special Purpose Award that was designed to enhance the inclusion of children with additional needs in ECEC settings and is funded by the DCYA and located at Level three of AIM.
MAXQDA	Qualitative Analysis Software
Montessori & Early Childhood Professionals Ireland	A community of practice that operates a Facebook group to support ECEC professionals. Established 2008.
Síolta, The National Quality Framework for Early Childhood Education	National quality framework designed to assess and support quality across all area of ECEC practice and provision. First published by CECDE in 2006.
The Competency Framework for Inclusion in ECCE	This framework underpins the LINC programme and identifies 25 competencies for supporting inclusion in early learning and care settings (Appendix i)
The ECCE Programme	DCYA funded 'free pre-school scheme' for children from 2 years 8 months until commencing compulsory primary school

Chapter 1: Introduction and Background to the Study

1.1 Introduction

This chapter explores what the research study is about, why this research topic has been chosen and what is hoped to be achieved. This research study is situated within learning and teaching at higher education and involves the topics of Continuing Professional Development (CPD) and application of knowledge within the Early Childhood Education Care (ECEC) sector, and is specifically focused on the blended learning CPD being offered through the Leadership for Inclusion in the Early Years (LINC) programme (LINC Consortium, 2019). It seeks to explore the experiences of early childhood teachers who have completed the LINC programme and understand how it has impacted their ECEC practice in terms of supporting their application of knowledge. This study holds personal and professional interest; as researcher I have a dual role as learner completing a master's degree as well as being employed as a tutor on the LINC programme. The research topic was chosen in relation to both my professional curiosity about the learning significance of completing CPD through the LINC programme, and current European discourse and research gaps in the area of CPD in ECEC. It is hoped that this process will provide examples and generate specific knowledge on the impact CPD through the LINC programme has had a sample of early childhood teachers' application of knowledge in practice, and could also

potentially contribute to broader knowledge in providing quality ECEC CPD training in Ireland.

1.2 Background

The LINC programme is a Level 6 Special Purpose Award, providing “*innovative competency-based adult continuing professional learning... designed to enhance the inclusion of children with additional needs in early years*” settings with graduates becoming inclusion coordinators (Breen et al., 2018, p. 99). It is a one-year blended learning programme that was first introduced in 2016: funded by the Department of Children and Youth Affairs (DCYA) and implemented by a consortium led by Mary Immaculate College (MIC), Early Childhood Ireland (ECI) and Maynooth University (NUIM) (Breen et al., 2018). Through its blended learning design, this CPD programme provides opportunities for early childhood teachers throughout Ireland to enhance their knowledge, skills and abilities while still working in their ECEC practice. This has importance for the ECEC sector in Ireland in relation to quality and professionalisation, and gives the potential for new and valuable research in this growing area, as there are only a handful of these courses in the area of early childhood education and care (ECEC) training within Ireland currently.

A decision was made to explore how and why the LINC programme supports early childhood teachers’ application of knowledge, through the process of capturing the experiences of some early childhood teachers

who have completed the programme. This process will generate specific knowledge, and also the potential to contribute to broader knowledge in providing quality ECEC CPD training in Ireland. The rationale for these research choices are outlined below.

1.3 Rationale

The initial starting point for this research choice was from a professional position of being a tutor on the LINC programme and wanting to understand the learning significance of completing CPD through the LINC programme. My role as LINC tutor gives good insight into the early childhood teachers' learning journey as it involves coordinating and leading approximately one hundred early childhood teachers through the six modules of the programme within the academic year: September to June each year. The role involves connecting with the early childhood teachers in different ways, for example as teacher delivering lessons and supporting group learning through the seven face to face sessions, as tutor facilitating discourse through weekly online tutorials and providing regular support and formative feedback through email, as well as a mentor role that involves building a trusting relationship with the learner in relation to supporting them with their own inclusive practice within their ECEC setting (LINC Consortium, 2019). It was through this well-formed tutor – learner relationship that many significant anecdotal accounts of personal and professional transformation were heard from the learners as they

completed their learning journey on the LINC programme; this led to a desire to capture some of these moments in a credible way so as to analyse and understand how the LINC programme is having an impact on early childhood teachers ECEC practice and why certain aspects of the course design might be contributing to this.

This research study is also rooted in a particular issue that has been identified within current European research and discourse in relation to CPD within ECEC, and its potential to support quality ECEC practice which has will be discussed further in Chapter 2. The issue is that although high quality ECEC provision is linked to the qualifications of early childhood teachers, qualifications alone cannot bring about high quality; the content, form and characteristics of the CPD also need to be considered, in particular to enable early childhood teachers to apply knowledge in their own practice. While this has been identified as a current issue within the sector, it has also been acknowledged that there needs to be more research in this area as the current research is limited.

An understanding of the issue can be explained in more detail by referring to a recent European review of CDP in ECEC, starting with a cross analysis of case studies from three European countries from Bove et al (2018), that acknowledges “*Implementing high-quality CPD to promote learning and qualifications for those already working in ECEC is considered an essential component of structural quality and high quality provision*” (p. 35). They go on to explain that this is supported by

international evidence showing a correlation between early childhood teachers' qualification levels and the provision of rich learning environments for young children, and they also highlight the issue that *"...qualifications alone are not sufficient..."* (p. 35) in achieving this. Bove et al (2018) go on to suggest that along with the qualification, the content, form and characteristics of the CPD also need to be considered, and this is further supported by Jensen & Iannone's (2018) literature and cross-country analysis conducted in ten European countries, in which they identify that in particular CPD needs to develop learning opportunities that enable early childhood teachers to apply knowledge in their own practice more than focusing *"solely on acquisition of specific knowledge and skills related to the ECEC contexts"* (p. 30).

This research is focusing on the relevance and topical nature of the issue: *that early childhood teachers' qualifications alone cannot bring about high quality ECEC provision; the content, form and characteristics of the CPD also need to be considered.* This is confirmed by Peleman et al., (2017a) as they highlight that recent discourse has involved debates on professionalism with a particular focus that *"...the specific competences of ECEC practitioners, especially for those working with disadvantaged children, are seen as crucial in promoting quality."* (p. 4). They also say that there is a gap in the exploration of what the specifics of these competences might be, along with the training content and processes to promote them (Jensen & Iannone, 2018; Peleman et al, 2017a). Jensen & Iannone (2018) also confirm that there is limited research in the area of

CPD in ECEC highlighting that within research “...*the notion of impact and effectiveness of CPD is still largely mysterious*” (p. 31). The LINC programme consortium have also identified the need to capture and analyse data of “*Participants’ Use of Knowledge and Skills*” as part of their own evaluation of the effectiveness of programme in supporting learning outcomes for children (LINC Consortium, 2019, p. 37).

Bove et al (2018) draw attention to what type of research is needed in this area, explaining that there is limited empirical research on how CPD in ECEC can best support changes in early childhood teachers’ thinking, and points to arguments that research needs to “*address questions of ‘how ‘and ‘why’ certain CPD efforts promote or impede growth rather than ‘what’ professional development forms affect change in early childhood teachers*” (p. 36). Peleman et al (2017b) adds to this argument by suggesting that these questions can be answered through qualitative research studies seeking the views and understanding of early childhood teachers, as it addresses the relational dimension of ECEC practice that is so relevant to high quality ECEC practice, which cannot be fully measured through rating scales on quantitative studies.

1.4 Purpose of this study:

This research study is underpinned by the identified issue *that although high quality ECEC provision is linked to the qualifications of early*

childhood teachers', qualifications alone cannot bring about high quality; the content, form and characteristics of the CPD also need to be considered, in particular to enable early childhood teachers to apply knowledge in their own practice. This study is also concerned with addressing the identified gaps in research and knowledge on 'how' and 'why' certain CPD impacts change in early childhood teachers. It plans to address 'how' and 'why' CPD through the LINC programme promotes or impedes early childhood teachers' application of knowledge, by seeking their views and understanding through exploring their experiences of completing the LINC programme and their own ECEC practice. This is more concisely summarised within the Aim of this study.

The Aim of this research study is:

to develop insights into how the LINC Programme supports early childhood teachers' application of knowledge in their ECEC practice.

Three objectives for this study that will guide the research to address the 'how' and 'why' and support the achievement of the aim are:

- To explore early childhood teachers' experiences of CPD through LINC Programme
- To identify examples of early childhood teachers applying knowledge gained from the LINC Programme in their practice of working in an ECEC setting

- To understand how the LINC programme blended learning design has provided opportunities and supported early childhood teachers in their application of knowledge.

1.5 Research Question

The question to guide this research study is:

How does CPD through the LINC programme impact early childhood teachers' application of knowledge?

In terms of the question being asked O' Leary (2017) suggests that *"a well-articulated research question defines an investigation, sets boundaries, provides direction..."* (p. 116) which for this investigation can clearly be found in the 'how' element of the question. The 'how' suggests the research study will be exploring, uncovering and describing experiences of the early childhood teachers with the aim of understanding 'how' the LINC programme has provided opportunities for application of knowledge, as well as giving insights into the intentionality of the early childhood teachers as to 'why' those moments impacted them.

It provides the direction that points towards a qualitative rather than a quantitative research approach being needed to answer this research question, as a quantitative approach would be more suitable to expressing the relationships between variables as part of a hypothesis leading to an understanding of 'what' features of the CPD impacted early childhood teachers application knowledge, with little sense of how or why (O'Leary,

2017; Scotland, 2012; Smith et al., 2009). This research question also defines the investigation as an inward exploration of the thoughts of a small group at a deep level through a qualitative method such as interviews. This method will offer insight and generate rich detailed knowledge from a micro epistemological perspective, which will be discussed in more detail in chapter 3 (O'Leary, 2017).

Chapter 2: Literature Review

2.1 Introduction

This chapter explores the central themes that arise from the research question *how does CPD through the LINC programme impact early childhood teachers' application of knowledge*. These themes are The LINC programme CPD, Blended learning pedagogy, Application of knowledge in ECEC practice. It frames them in the context of the research issue *high quality ECEC provision is linked to the qualifications of early childhood teachers, qualifications alone cannot bring about high quality; the content, form and characteristics of the CPD also need to be considered, in particular to enable early childhood teachers to apply knowledge in their own practice*.

The first section provides an understanding of the characteristics of the LINC programme as innovative CPD, and the need for this CPD in relation to recent European and Irish discourse on CPD in the ECEC sector. The second section explores the form of CPD the LINC programme provides using a blended learning design, identifying the features of blended learning in the context of current research using Garrison, Anderson and Archer's Community of Inquiry model (2000) to argue that its design supports learning and application of knowledge, and makes connections to Lave and Wenger's Communities of Practice (1991) .

The third section examines the content of the modules from the LINC programme in relation to professional knowledge and the knowledge base for ECEC using theoretical perspectives on knowledge from Bernstein (1999) and Aristotle, as well as the ECEC competences (Urban et al., 2011). It also identifies what application of knowledge means for ECEC practitioners and its importance in high quality ECEC provision and provides an understanding of how application of knowledge is supported through the content, characteristics and form of CPD through the LINC programme. The fourth section concludes the literature review with a summary of the most salient points.

2.2 The LINC programme CPD

Continuing professional development (CPD) in Early Childhood Care and Education (ECEC) can include all types of planned programmes including in-service training, short-term or long-term courses, and other lifelong learning initiatives that practitioners working in ECEC settings engage in as a way to support, update and consolidate their professional knowledge and competence (Peleman et al., 2017a).

The LINC programme provides “*innovative competency-based...*” CPD for early childhood teachers, that plays a critical part “*in cultivating and leading inclusion*” within ECEC settings in Ireland (Breen et al., 2018, pp. 100-101). The LINC programme provides innovative CPD through its main characteristic of being able to meet the training needs identified

within the ECEC sector in Ireland in relation to inclusion and ECEC competences. It does this by providing a long term form of training that supports early childhood teachers to bring about change in their own ECEC practice and reduce disadvantage in relation to children with additional needs (Bove, et al., 2018; Jensen & Iannone, 2018). Innovation in CPD is essential to update, improve and be able to renew professional competence, skills and knowledge (Bove, et al., 2018).

In terms of meeting the training needs of the ECEC sector, the development of the LINC programme in 2016 came from the feedback of a consultation process on early years provision in Ireland led by the Department of Children and Youth affairs (DCYA). This “*open policy debate*” in 2015 “*involved parents, childcare providers, childcare committees, academics, experts and NGO’s*” (IDG, 2015a, p. 37), and two interdepartmental group (IDG) reports were then published. Some themes and findings that emerged from the *Report of Inter-Departmental Working Group: Future Investment in Childcare in Ireland* (IDG, 2015a) include encouraging up-skilling of the early years workforce and providing supports for children with additional needs, so they “*...can be supported to participate in preschool settings and reach their potential*” (IDG, 2015a, p37, p53). The second report, *Supporting Access to the Early Childhood Care and Education (ECCE) Programme for Children with a Disability* (IDG, 2015b) mapped out how these supports could be achieved through the introduction of a seven level Access and Inclusion Model (AIM) for ECEC settings to enable the full inclusion and meaningful participation of

children in the free preschool scheme: *The ECCE Programme* (IDG, 2015b). The LINC programme fits into Level three of the Access and Inclusion Model (AIM) providing inclusion training to support a qualified and competent workforce, in the form of a Level 6 special purpose award, so that one member of the team in an ECEC setting could be appointed as the Inclusion Coordinator (INCO) to lead inclusive practice (IDG, 2015b; LINC Consortium, 2019).

The need for CPD in the area of supporting children with additional needs and some other competency areas was also confirmed with the result from the *Survey of Early Years Practitioners Consultation for the Review of Education and Training Programmes in Early Years May 2016* from the Department of Education and Skills (DES). The results of the survey identified that 91% of practitioners were motivated to engage in CPD, and a large proportion of them identified a preference for future education and training in inclusion of children with additional needs. This preference was connected to identified gaps in their FE and HE training to prepare them to support children with additional needs (DES, 2016). In the findings of the survey, early childhood teachers had also identified gaps in training and knowledge around the *Aistear, The Early Childhood Curriculum Framework* (NCCA, 2009) and *Síolta, The National Quality Framework For Early Childhood Education* (CECDE, 2006), and in their ability to make links from theory to practice, as well as in their preparedness to liaise with parents, families and specialists (DES, 2016).

The government's commitment to focus on addressing social inequality and match it with the identified needs of early childhood teachers was further supported by providing four years of funding for the one year programme rather than short workshops or courses (LINC Consortium, 2019). European research has confirmed the benefit of long term CPD, identifying that short-term CPD can narrow down training to focusing on the technical aspect of skills, competencies, methods and procedures, which has "*...limited impact on daily practice and the development of sustainable high quality ECEC*" (Peleman et al., 2017a, p. 4; Vandenbroeck et al., 2013, pp. 118-119). Peleman et al. (2017b) argue that narrowing ECEC down to technical issues neglects the potential for inequality and social justice to be addressed. Peleman et al (2017b) goes on to say that 'on the job' CPD involving a combination of pedagogy and supervision is more beneficial than 'one-off' training courses based on acquiring theory and skills with no integration into the context of early childhood teachers ECEC setting. Bove et al (2018) highlights that CPD that involves dialogue with the team and parents within the ECEC setting and mentoring supports this further.

Breen et al (2018) suggest that the CPD the LINC programme offers "*has the potential to transform both the lives of adult learners and those of children, families and society in Ireland*" (p. 113) and an external evaluation of the programme confirmed its role as an agent of change (LINC Consortium, 2019). This potential to transform comes from the social innovation of this CPD having the ability to address inequality and

disadvantage around additional needs and support inclusion (Jensen & Iannone, 2018). Bove et al (2018) describe social innovation as a collective process of transforming ideas, values, theories and strategies into new processes of quality as related to CPD. The innovative CPD the LINC programme provides is also valuable in contributing to a competent ECEC system that supports high quality ECEC provision; it is able to do so through the opportunities it provides for critical reflection, communities of practice and being underpinned by *The competency framework for inclusion in early childhood care and education* (Appendix i) that identifies knowledge, practice and values needed (Jensen & Iannone, 2018; LINC Consortium, 2019; Urban, 2011).

Contributing to a competent ECEC system involves identifying the practitioners' training needs and then matching them to the CPD being offered through the LINC programme, so that early childhood teachers feel valued and motivated in what they are learning, which helps to ensure the training will have a positive effect and support improvements back in their ECEC setting (Bove et al., 2018; Peeters et al., 2017). Bringing about improvements in everyday practice is further supported when the CPD provides early childhood teachers with the opportunity to critically reflect on their practice prior, during and after, as their job roles involve "*complex socio-pedagogical competences*" (Peeters et al., 2017, p. 55) that are ever changing (LINC Consortium, 2019; Sharmahd et al., 2018; Urban et al., 2011). Reflection at both individual and team level helps to bridge the

theory practice divide and prompts continual evaluation (Jensen & Iannone, 2018; LINC Consortium, 2019).

Jensen & Iannone (2018) use Bronfenbrenners Bioecological Model to explain innovation in CPD at three levels: Macro, Meso and Micro, which can be used here to summarise the ability for the LINC programme to provide innovative CPD. At a macro level CPD through the LINC programme is innovative as it is funded by the Irish Government through the Department of Children and Youth Affairs (DCYA) as part of addressing social inequality and supporting the inclusion. At a meso level it is innovative as it is grounded in research and sharing of ideas through the consortium led by Mary Immaculate College (MIC), Early Childhood Ireland (ECI) and Maynooth University (NUIM) (Breen et al., 2019). While at a micro level the LINC programme is innovative in providing long-term CPD through a one year Level 6 Special Purpose Award that offers early childhood teachers flexible professionalising as they combine their work with training, leading to a new horizontal leadership role within the ECEC setting as Inclusion Coordinator (INCO) (IDG, 2015b; Urban et al., 2011).

2.3 Blended learning pedagogy

The LINC programme provides a blended learning form of CPD, and although there is no agreed definition of blended learning, in this study it will be referred to as the integration of online learning with face to face

learning experiences (Breen et al., 2018; Smyth et al., 2012). Blended learning can take place within a variety of environments including at home, at work, on a college campus or an off-site venue, with online learning taking place either together in real time (synchronously) or at a time of the learners' choosing (asynchronously) (Glogowska et al., 2011; Smyth et al., 2012). The LINC programme is one of a handful blended learning courses in the area of ECEC training in Ireland which gives the potential for new and valuable research in this growing area as currently in Ireland blended learning options are on the increase: *The National Forum for the Enhancement of Teaching and Learning* identified that by 2017 almost all of the 25 higher education institutions had at least one offering (O'Rourke, 2017).

As a pedagogical tool blended learning has been identified as having "...*the potential to contribute...improve...and enhance student learning...*" (Smyth et al., 2012, p. 464). In the context of the LINC programme Breen et al (2018) have suggested that the blended learning design has the ability to transform the experience of CDP, through providing inclusive and flexible professionalising that meets the needs of a diverse range of learners (Boelens et al., 2018; Breen et al., 2018; Urban et al., 2011). As a form of CPD it also offers flexibility to learners and has the ability to reach a wide cohort of early childhood teachers situated around the Ireland.

The early childhood teachers completing the LINC programme have a wide range of ECEC qualifications from Level 5 up to Level 9 on the

National Framework of Qualifications (NFQ) (Breen et al., 2018) therefore the CPD aspect of the training will mean different things to different learners. For some it may be supporting them to upskill from Level 5 to Level 6, whereas for other learners it may be reinforcing previous learning from their degree level training, giving a more specialised focus on inclusion, and with that some students will move at a faster or a slower pace.

Learner diversity is also supported in terms of “*the flexibility and convenience of being able to work in their own time and location*” (Smyth et al., 2012, p. 464), at a pace that suits, which cannot be easily replicated through traditional classroom learning (Breen et al., 2018; Glogowska et al., 2011). Within the LINC programme the six weekly online units for each of the six modules provide asynchronous learning materials, offering learners freedom and flexibility to access and complete them at their own pace, and at a time and location that suits them (Breen et al., 2018). Research by Smyth et al (2012) into learners’ experiences of blended learning produced findings showing that the flexibility of the blended learning design fostered a sense of autonomy, enabling learners to take increased responsibility for making sure they understood content so that it could be applied to their practice.

The blended learning design of the LINC programme provided a means to provide nationwide access to the CPD with 900+ learners participating each year (Breen et al., 2018). Over 80% of the programme

is delivered online and the seven face to face sessions are held in approximately nine different regional locations each year, with the aim of giving an opportunity for one person from each ECEC setting in Ireland to participate (LINC Consortium, 2019).

As part of the programme design early childhood teachers are provided with an active online environment underpinned by both pedagogical expertise and visible tutor support to guide them through the six modules (Breen et al., 2018). This is an important feature as research has indicated that “*some educators may focus on the technology and disregard the learning goals*” (Smyth et al., 2012, p. 464), resulting with learning being “*led by technology rather than pedagogy*” (Glogowska et al, 2011, p. 887). Research by Hughes (2007) also points to student dissatisfaction with “*the online experience, mainly because of poorly designed online environments and lack of guidance and support from tutors on how to learn online*” (p. 353).

The blended learning pedagogy provided through the LINC programme supports early childhood teachers to develop competences that support high quality ECEC provision. Being able to combine their practical experiences at work with theory from the course content supports this, especially through the opportunities for sharing reflections and engaging in discourse with peers (Lave & Wenger, 2002; LINC Consortium, 2019; Urban et al., 2011). Having opportunities to develop

networks as well as completing a competences portfolio to tie together the learning with practice adds to this (Urban et al., 2011).

The impact of the blended learning design can be further explained using the Community of Inquiry (CoI) framework developed by Garrison, Anderson and Archer (2000). The CoI model views that effective online learning involves the development of a community of learners as a way of encouraging meaningful inquiry and deep learning, and three interdependent elements are necessary for this collaborative learning to take place: social presence, teaching presence and cognitive presence (Swan et al., 2008).

The teaching presence provides leadership throughout the programme in terms of the weekly pre-recorded online lessons at the core of the design (Breen et al., 2018). These lessons support both social and cognitive presence through the enhanced interactive elements including “*viewing video-clips, reading articles...and reflections*” (Breen et al., 2018, p. 106) and opportunities for reflection and discourse when contributing to the community of learners through forum post discussion as well as “*uploading reflections and practice-related assignments*” (p. 106) related to specific lesson content (Akyol et al., 2009; LINC Consortium, 2019; Swan et al., 2008).

Social presence can be defined as the “*degree to which learners feel socially and emotionally connected with others within the online environment*” (Swan et al., 2008, p. 1). Feeling connected signals a sense

of belonging or membership to a community of practice as suggested by Lave and Wenger (1991) Communities of Practice (CoP). This is supported by the process of engaging in discourse through sharing of knowledge and practice leading to communal memories and reflection, and both the online and face to face elements support this (Lave & Wenger, 2002; Szeto, 2015). The weekly 30-minute tutorials give the early childhood teachers opportunity to engage in sustained discourse and reflection with their tutor and up to 25 other students (Breen et al., 2018). The face-to-face session for each of the six modules provides up to 60 students a chance to participate in group work, discussion and sharing ideas and stories about moments from their own practice, within CoP facilitated by their LINC tutor (LINC Consortium, 2019).

Cognitive presence refers to the extent that learners are able to construct meaning through their interactions as part of the sustained discourse and reflection within the community of learners (Akyol et al., 2009; Swan et al., 2008). This meaning leads to knowledge building which is identified through the four distinct phases of the practical inquiry model: triggering event, exploration, integration and resolution (Akyol & Garrison, 2011). The LINC tutor also has a key role in supporting cognitive presence through a one-to-one mentoring session using the 25 reflective statements from *The Competency Framework for Inclusion in Early Childhood Care and Education* (Appendix i) (Breen et al., 2018; LINC Consortium, 2019). This mentoring provides a way for the learner to move through the phases of the practical inquiry model as they bring the knowledge they have

constructed through previous online triggering events and shared exploration, which they then integrate and use to resolve problems, as they apply this knowledge in their practice, with the mentoring support of their tutor (Breen et al., 2018).

2.4 Application of knowledge in ECEC practice

Within ECEC practice, application of knowledge or 'know how' can be defined as the tying together of everyday practice with professional knowledge (Campbell-Barr, 2018). Professional knowledge involves not only memorising and recalling knowledge or 'know what' that's been acquired through training, it importantly involves the coming together of theory and practice within a specific social context (Campbell-Barr, 2018; 2019; Hordern, 2016). Campbell-Barr (2019a) articulates this using Aristotle's three forms of knowledge, explaining that traditionally ECEC knowledge is formed through both *episteme* (pure knowledge) and *techne* (skills) and that the application of these knowledges comes from *phronesis* (practical wisdom): deliberate and informed practical action situated around values and beliefs.

Campbell-Barr (2019a) suggests that ECEC training programmes should be considering the role of application of knowledge in early childhood teachers' professional practice, particularly in "*coming to know-how to work with young children*" (p. 143). International research shows that training that encourages early childhood teachers' application of

knowledge also supports high-quality experiences and stimulating learning environments for young children in ECEC settings (Rekalidou & Panitsides, 2015; Campbell-Barr 2018; Peleman et al, 2017b).

Bove et al (2018) point to a correlation “*between teachers qualification levels and rich learning environment that provide pedagogical stimulation for children*” (p. 35). Research studies highlighting that ‘teacher education matters’ (Rekalidou & Panitsides, 2015; Fukkink & Lont, 2007) also identify that training needs to be appropriate; courses that provide opportunities for learners to reflect, to bring their experiential professional knowledge, and to explore how theory can be applied in practice, encouraging their application of knowledge, are preferred by practitioners (Osgood, 2010; Campbell-Barr 2018; 2019a; Egan, 2009). Whereas prescriptive short term CPD that is perceived to be lacking in practical application and higher order thinking can have a detrimental effect on early childhood teachers, and “...*limited impact on daily practices or on the development of sustainable high quality ECEC...*’ (Peleman et al. 2017b, pp. 4-5) (Osgood, 2010).

The ECEC knowledge-base also needs to be considered in terms of the content of CPD training. A good starting place is understanding what high quality ECEC provision is, before identifying the forms of knowledge needed, and Mathias Urban and colleagues’ 2011 report from the European research project on *Competence Requirements in Early Childhood Education and Care* (CoRe) helps to conceptualise this. Urban

et al (2011) identify that high quality ECEC provision focuses on the relational and social aspect between the children, their families and the team within the setting, and assumes values are embedded in it rather than being solely focused on staff ratios and facilities. High quality ECEC provision means involving children in decision making, so they feel involved and have a sense of belonging, as well as a sense of achieving; having a learning environment to support this involves consideration is the space, resources and play materials (Urban et al, 2011). Interactions that are warm and supportive, that encourage relationships between the children and with the early childhood teachers, as well as the relationships within the team in the ECEC setting, belong at the heart of high quality ECEC provision (Urban et al, 2011). These interactions are supported by operational quality; with a management that is responsive to effective team building and maintains a leadership that motivates and encourages working as a team and information sharing, as well as critical reflective practice (Urban et al, 2011).

Melhuish (2015) (cited in LINC Consortium, 2019, p. 88) also identifies that quality adult-child verbal interactions are indicators of high-quality ECEC along with knowledge and understanding of how children learn, and of a curriculum that supports a child-centred approach that supports children in democratic and participatory ways (Campbell-Barr, 2017a; 2019b). A child-centred approach recognises the child as naturally curious, wanting to explore and discover, also in terms of their right to make decisions and choices about their own learning, as well as having a

good understanding of how they learn best, so that opportunities can be facilitated (Campbell-Barr, 2017b; 2019). Another important feature of high quality ECEC provision is being guided by a national curriculum framework such as Aistear (Urban et al., 2011). In Ireland both Síolta and Aistear guide early childhood teachers in the area of these quality interactions, curriculum and an effective team approach. As a curriculum framework Aistear presents the image of a competent and confident child as the goal for early childhood teachers when planning their curriculum approach, with the emphasis on keeping the child at the centre of all they do (NCCA, 2009).

Urban et al, (2011) identify that *“the quality of ECEC depends on the competence of people working with children, families and communities”* (p. 21) and developing these competences involves building professional knowledge, practice and showing professional values. The combination of these forms of knowledge can be further explained using Bernstein’s ‘sociology of knowledge’ framework (Campbell-Barr, 2018; 2019a). Bernstein’s model recognises the need for different forms of knowledge as ECEC professionals, both specialised knowledge such as child development, grounded in theory, and everyday experiential knowledge that comes from practice, along with values, beliefs, and attitudes, and is specific to an ECEC practitioners’ own practice (Bernstein, 1999; Campbell-Barr, 2018; 2019a). Bernstein suggests that while the different forms of knowledge such as child development theories may be accepted as more legitimate knowledge than for example an

individual's beliefs around child-centred practice, they can still come together and be recontextualised and applied to form context specific professional knowledge that gives autonomy to the ECEC practitioners to determine what knowledge is useful to them and how it is best applied to meet the needs of practice (Campbell-Barr, 2019a; 2018).

Urban et al (2011) present the main knowledge, practice and values that contribute to early childhood teachers' professional knowledge for supporting child-centred high quality ECEC, and the LINC programme provides content to support this through six modules (LINC Consortium, 2019). The *Child Development* module provides knowledge of holistic development that supports early childhood teachers to observe, plan and document childrens' learning in practice so that they can work out how to support their active participation and inclusion within the learning experiences (LINC Consortium, 2019; Urban et al., 2011). The *Inclusion in Early Years Settings: Concepts and Strategies* module builds knowledge of strategies to support learning; these are needed so an effective learning environment can be planned that encourages childrens' discovery and exploration starting with their strengths, and values children as active agents making decisions for themselves and together (LINC Consortium, 2019; Urban et al., 2011). The *Curriculum for Inclusion* module is grounded in knowledge of communication with children and participation, and supports early childhood teachers to encourage children to express themselves, and to value the rights of the child in making choices and actively participating (LINC Consortium, 2019; Urban et al., 2011). The

modules on *promoting collaborative practice for inclusion in early childhood care and education*, and *Leadership for Inclusion* provide valuable knowledge around working with parents, community and the team within the ECEC setting, and introduces them to models of reflective practice and analysis (LINC Consortium, 2019; Urban et al., 2011).

Early childhood teachers' application of knowledge is supported with the final *Portfolio* module; it provides them with the ability to connect these areas of professional knowledge through critical reflection where the knowledge, practice and values become knowing, doing and being, as they document their own professional practice and examples of leading inclusion using *The Competency Framework for Inclusion in Early Childhood Care and Education* (Appendix i) (LINC Consortium, 2019; Urban et al., 2011). Application of knowledge is also supported by referring to Aistear and Siolta throughout the modules so that inclusive practice can be embedded in their implementation in practice (LINC Consortium, 2019).

The LINC programmes' own evaluation has identified that this combination of content, opportunities to reflect and share ideas, and receive tutor support have been effective in bridging the theory practice divide (LINC Consortium, 2019). Bridging the theory practice divide contributes to their professional knowledge and how they apply it in their own practice, resulting in a *phronesis*: practical wisdom, where early

childhood teachers gain a sense of how to do things, rather than being concerned with achieving an end goal (Campbell-Barr, 2019a).

In terms of the characteristics of CPD through the LINC programme, application of knowledge is also supported, as the training is grounded “*in a coherent pedagogical framework or curriculum that builds upon research and addresses local needs...*” motivating early childhood teachers to be “*actively involved in the process of improving educational practice*” within their ECEC setting (Bove et al, 2018, p. 35). Making these improvements to their own ECEC practice is supported by the long-term nature of the CPD, so that there is time for critical reflection before, during and after, as well as collaborative experiential learning, the exchange of knowledge and analysis of everyday practices (Bove et al, 2018; Egan, 2009; LINC consortium, 2019). Early childhood teachers are supported to become agents of change in areas of high quality and inclusive ECEC provision (Bove et al, 2018).

The blended learning form of CPD provided by the LINC programme, supports early childhood teachers’ application of knowledge through their autonomy to engage in the programme as suited. Within a constructivist learning context this encourages learners “*build up their own body of knowledge centred on individual experiences and then apply this knowledge directly to the setting*” (Smyth et al, 2012, p. 467).

Application of knowledge is also supported through the social process of learning, as knowledge is exchanged through “*... a process of*

centripetal participation in a community of practice, in which newcomers are initiated by old timers..." (Egan, 2009, p. 46; Lave & Wenger, 2002, pp. 120-121). The process of learning to talk about ECEC practice through exchange of knowledge and sharing of moments from practice promotes discourse about the wider ECEC contexts, leading to early childhood teachers legitimate peripheral participation (LPP) with a community of ECEC professionals (Lave & Wenger, 2002). Through LPP early childhood teachers co-construct pedagogical knowledge needed for working with children, and *Phronesis* (practical wisdom) develops as they apply this knowledge in a deliberate context specific way, guiding them on how to do things that benefit those in the setting (Campbell-Barr, 2019a; Egan, 2009; Lave and Wenger, 2002; Urban et al, 2011).

The idea that a blended learning approach to CPD can support application of knowledge is further supported by Garrison, Anderson and Archer (2000) Community of Inquiry (CoI) framework. Application of knowledge is supported when early childhood teachers construct meaning through sustained reflection and discourse, as learners experience the multiple perspectives of the other learners through the social presence element. The teaching presence element of the model facilitates this discourse and the building of understanding (Akyol & Garrison, 2011; Hyo-Jeong So & Brush, 2007; Swan et al, 2008). Application of knowledge takes place when early childhood teachers take the meaning they formed and integrate it into their own decision-making to benefit their ECEC practice as part of the cognitive presence element of CoI involving the four

phases of the *practical inquiry model* (Akyol & Garrison, 2011; Akyol et al, 2009; Glogowska et al, 2011).

2.5 Conclusion

Innovative CPD contributes to professional knowledge leading to high quality ECEC provision (Bove, et al., 2018). The LINC programme provides innovative CPD by meeting the identified training needs of early childhood teachers in the areas of inclusion and child-centred practice leading to new leadership role (Bove, et al., 2018). It supports early childhood teachers to bring about improvements to their own ECEC practice by providing a long term form of CPD that helps bridge the theory practice divide through mentoring and opportunities to critically reflect (LINC Consortium, 2019; Peleman, et al., 2017b). The blended learning pedagogy of the LINC programme provides a community of inquiry and specifically supports this through the online and face to face opportunities for early childhood teachers to engage in discourse and reflection as part of communities of practice and facilitated by their tutor (Lave & Wenger, 2002; LINC Consortium, 2019; Swan, et al., 2011) The content of lessons within each module reinforce early childhood teachers knowledge, practice and values in the areas of inclusive and child-centred practice building their professional knowledge (LINC Consortium, 2019; Urban et al., 2011). Recontextualising their professional knowledge through the process of discourse and critical reflection supports early childhood teachers

application of knowledge back in their ECEC settings (Campbell-Barr, 2019a). This supports them as agents of change as they gain practical wisdom on how to do things that benefit those in their ECEC setting (Campbell-Barr, 2019a).

Chapter 3: Methodology

3.1 Introduction

This chapter explores the research design rationale in terms of methodology, sampling, data collection and analysis in relation to generating data and answers for the research question *how does CPD through the LINC programme impact early childhood teachers' application of knowledge*. In this research the 'how' within the research question suggests that the study will involve exploring, uncovering and describing the experiences of the early childhood teachers who completed the LINC programme. This is further confirmed within the study's aim *to develop insights into how the LINC programme supports early childhood teachers' application of knowledge in their ECEC practice*. There are three objectives that guide the research to achieve this.

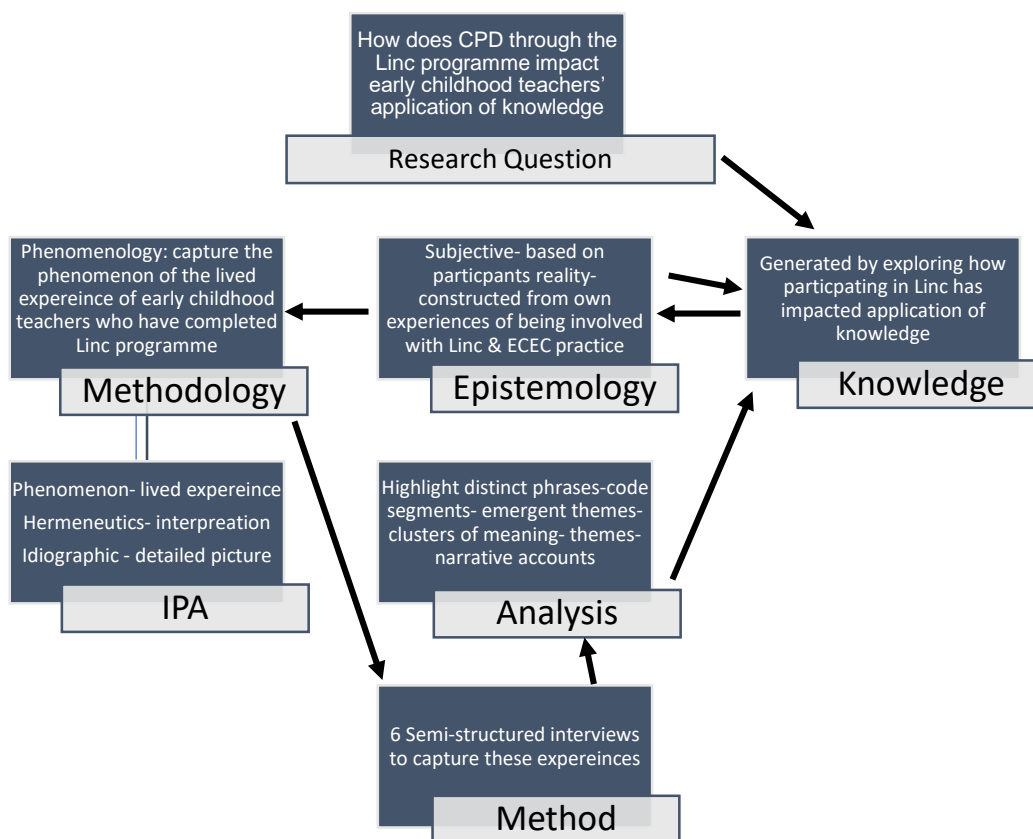
Objectives:

- To explore early childhood teachers' experiences of CPD through LINC Programme
- To identify examples of early childhood teachers applying knowledge gained from the LINC Programme in their practice of working in an ECEC setting.
- To understand how the LINC programme blended learning design has provided opportunities and supported early childhood teachers in their application of knowledge

The research design for this study is guided by the research question; it provided direction and set boundaries so that the data generated was credible (O'Leary, 2017). I developed a framework for moving from the research question to credible answers using *The simple relationship between epistemology, methodology and method* as suggested by Carter & Little (2007, p. 1317) (Figure 1) and will refer to it throughout the chapter.

The chosen research design is qualitative in approach, set within an interpretive paradigm using a phenomenological methodological approach: Interpretative Phenomenological Analysis (IPA). This allows for the early childhood teachers' reality, experiences, interpretations, and shared meanings to be captured through six individual semi-structured interviews, and analysed using inductive reasoning and thematic analysis (Scotland, 2012). This resulted in the production of context laden knowledge rooted in an epistemology that is highly subjective in nature that cannot be generalised, but has some transferability (O'Leary, 2017). This knowledge generated may be valuable to the ECEC community knowledge base within the areas of CPD, blended learning, quality and professionalisation.

Figure 1 The Research Design



3.2 Methodology

Phenomenology and specifically Interpretative Phenomenological Analysis (IPA) was chosen as the methodological approach. I chose this methodological approach as it appeared to offer the best path to answering the research question, from the context of developing insights into how participating in the LINC programme supported early childhood teachers' application knowledge and why it was able to impact it (Figure 1). This guided my choice of a qualitative approach set within an interpretive paradigm as it seemed appropriate for generating this knowledge (O'Leary, 2017). The knowledge being created was based on the early childhood

teachers reality of being involved with the LINC programme and of working in an ECEC setting, which fits with the ontological position of relativism, and is epistemologically highly subjective as it's constructed from their own experiences (See Figure 1, p.43) (Scotland, 2012).

Identifying the epistemology guided the methodological choice of Phenomenology: "*a philosophical approach to the study of experience*" (Carter & Little, 2007; Smith et al., 2009, p. 12). The phenomenon captured here was the lived experiences of early childhood teachers who have completed the LINC Programme, and this involved gathering detailed accounts and interpretations of what they remember and what was significant to them.

Understanding what was involved in capturing their lived experience guided the specific choice of: Interpretative Phenomenological Analysis (IPA), as along with exploring the phenomenon it is "*informed by hermeneutics; the theory of interpretation*" (Smith et al 2009, p. 1) (See Figure 1, p. 43). This placed emphasis on not just the lived experiences of the participants but also on recognising that their account included their own interpretation as they attempted "*to make sense of their experience*" (Smith et al., 2009, p. 3). My own interpretation as a researcher also had a part in this as I tried "*make sense of the participant trying to make sense of what is happening to them*" (Smith et al., 2009, p. 3) which led to a form of double hermeneutics (Smith & Shinebourne, 2012). Another favourable feature of IPA is that it is idiographic, so as researcher I aimed to get a

detailed picture of each participant's experience and how they made sense of it and was at the heart of making the epistemology visible (Carter & Little, 2007). Looking for a detailed picture guided the choice of a small sample size and use of semi-structured interviews as the method for capturing these experiences and collecting rich data.

Another aspect of the IPA methodological approach involved having "*an insiders perspective*" (Smith et al., 2009, p. 36) to capture the rich data from the learners' meaningful accounts of their experiences, and this involved building rapport, so that the participants felt comfortable to talk openly and reflectively (Smith et al., 2009). However, these interactions can also bring biases to this study, especially through the very nature of my role as researcher and interviewer being related to my job role as a LINC Programme tutor, including previous experience of tutoring one of the six participants.

The potential bias that this brings can be seen in two ways, firstly through recognising the potential impact of the power relationship between myself and the participants just by the very nature of the role of researcher, I am therefore educated enough to be "*...in a position to conduct research...*" (O'Leary, 2017, p. 55). The second power position I held was as a tutor versus their previous learner role on the LINC programme. Learners may have also seen me as an advocate for the LINC programme, all of which may have potentially restricted participants

openness to speaking freely and critically about their experiences of completing the LINC programme.

Many decisions had to be made when considering this research design in terms of limiting the power position and being ethical while wanting to pursue this research topic that holds personal and professional interest and value. O'Leary (2017) emphasises that "*both the integrity of the knowledge produced and the well-being of the researched are dependent on ethical negotiation of power and power relationships.*" (p. 55).

A decision was made to involve graduates rather than current learners as participants, as the power relationship would be too significant and could interfere with their learning journey. Consideration was given to a more anonymous research design such as a survey approach, however this had limitations such as possibly generating knowledge on 'what' areas of the LINC programme impacted learners rather than the 'how' and 'why' it impacted learners own ECEC practice. In fact, the insider perspective of being a LINC tutor and exploring how and why the programme impacted learner's application of knowledge has brought personal insight and experiences to the study that an outsider would not be able to replicate in terms of facilitating and interpreting the participants discussion (O'Leary, 2017).

3.3 Population

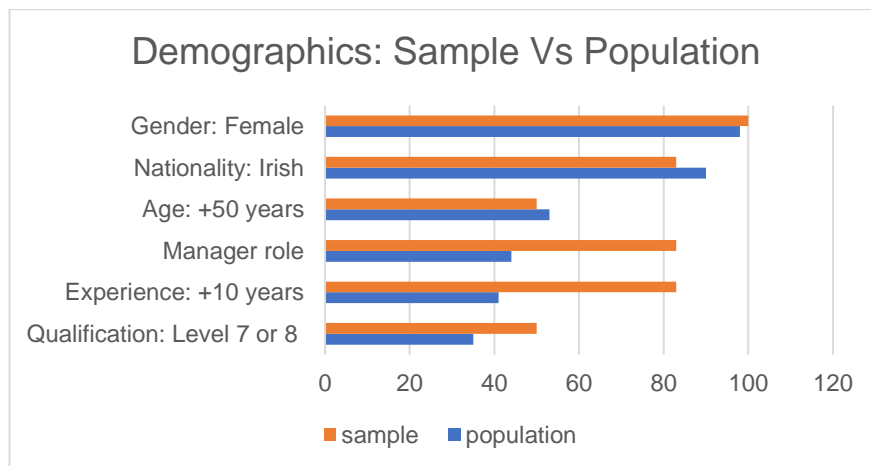
The population for this study refers to the 800+ learners nationwide who have completed the LINC programme for each academic year in either 2016/2017 or 2017/2018 (LINC Consortium, 2019). A requirement for being a learner on the LINC programme is to be currently employed within an ECEC setting that participates in The ECCE programme and to hold a minimum of a Level 5 qualification in ECEC on the National Framework of Qualifications (NFQ) (Breen et al., 2018). The population is almost exclusively female with 90%+ being Irish nationals, and 53% being over 50 years old, with 18% being under thirty years old. In terms of prior ECEC qualifications before starting the LINC programme, 13% of the participants are at a Level 5 on the NFQ, while 47% of the participants are at Level 6, and 35% have achieved either a Level 7 or Level 8 degree level qualification in ECEC (LINC Consortium, 2019). The majority of the population, 97%, has more than 5 years experience working in ECEC practice. While 41% have at least 10 years' experience and 7% have 15 years or more experience working in the sector (LINC Consortium, 2019). A final aspect to the population of LINC programme learners is the role or position they hold within their ECEC setting with 44% being the manager of the setting, 33% holding a team leader role, such as room leader, while 21% have a team member role such as childcare assistant (LINC Consortium, 2019).

3.4 Sampling

A small homogenous sample of six participants participated in the study. Participants volunteered through an open call on the group Facebook page: *Montessori & Early Childhood Professionals Ireland* representing the larger population during February 2019 using the following inclusion criteria: must be currently employed in an ECEC setting and must have completed the LINC Programme and graduated in either 2017 or 2018. The inclusion criteria reflected that fact that LINC has only been in place since 2016 and there are two cohorts who have graduated in either 2017 or 2018. It also reflected the need to have graduates who still work in an ECEC setting so that examples of their application of knowledge could be identified.

The sample of six participants differed slightly from the demographic profile of the population of 1600+ learners nationwide who have completed the LINC programme since 2016 (LINC Consortium, 2019) (Figure 2).

Figure 2 Demographics Sample Vs. Population



The most significant differences were in relation to qualifications, experience, and role within the ECEC setting; half of the sample had a Level 7 or Level 8 ECEC qualification versus the 35% within the population, 83% of the sample had 10 years or more experience working in the sector versus 41% within the population, and 83% of the sample held a managers role versus 44% within the population. However, the sample was representative of the population in terms of gender (100%), nationality (83% vs 90%) and age profile (50% vs 53%).

The rationale for choosing a small homogeneous sample size came from my choice of IPA as a methodology; small enough to allow for detailed participant accounts as well as being large enough to provide some explorations of similarities and differences between the participant's experiences (Smith et al., 2009). While the sample size was small and will have limited transferability, both Creswell (2007) and Thorne et al (2004) identify that authenticity comes from the ability to gather meaningful accounts of the early childhood teachers experiences rather than the number being interviewed.

3.5 Data collection

Data was gathered through semi-structured interviews, which were implemented during March and April 2019. Six individual semi-structured interviews were completed in person at a time and location of the participants' choosing and lasted between 25 minutes and 90 minutes.

Audio recordings of the interviews were made using my smartphone as a recording device. All six participants chose to complete the interview within their own ECEC settings, two took place in their offices, one was in the staffroom, one was in the empty preschool room, and two took place within the kitchen/living area of their homes which their preschools were attached to. The geographic locations varied; four of the interviews were within the Dublin area and the other two were located in Cork and Louth.

An interview schedule with six demographic questions and 10 open-ended questions with prompts (Appendix ii) was developed and used, with the aim to capture rich data in conversations of up to 90 minutes. The questions were broad and open-ended with prompts to encourage the participants to remember their experiences and interpretations of completing the LINC programme while they were simultaneously working in an ECEC setting, as well as moments from their subsequent ECEC practice that might show their application of knowledge through changes or particular moments in their practice (Smith et al., 2009, p. 60). This approach to data collection suited the idiographic element of the IPA methodology as it provided rich detailed accounts of the participants' experiences (See Figure 1, p.43) (Smith et al., 2009).

My goal was to encourage the participants to talk freely and have a “*conversation with purpose*” (Smith, et al., 2009, p. 59) rather than trying to get direct answers through structured interview questions, with the hope that through inductive analysis findings would emerge that would address

the research question. However, a limitation with this comes from my inexperience as an interviewer (Smith et al., 2009). I worked to minimise this by first completing a pilot interview.

The pilot interview was completed using a convenience sample (O'Leary, 2017) of one person from the population of LINC programme graduates. This allowed for some practice of semi-structured interviewing techniques including probing and prompting, as well as trialing the interview schedule and question wording. Trialing the interview process and schedule of questions highlighted how difficult it is to prompt and probe without unintentionally leading the participant to provide certain responses, and it led to changes in the interview schedule before starting the future interview process.

One change to support my probing skills was adding some extra prompts that would help participants expand on their discussion, for example: *Can you tell me more about that...How did this support your understanding/ add to your knowledge/ influence your own practice?*

Another change was to the order of the questions. I moved the question: *Can you tell me about any recent experiences in your practice that relates back to completing the LINC Programme?* From question 7 to question 5 as I felt the participant had been more comfortable thinking about her current practice rather than remembering older moments.

I removed a question: *Did these changes come from a particular part of the LINC programme?* As it was asking the participant to remember

back to the particular lessons, or features such as face to face session, forum posts or online tutorials, which she found hard to remember as it was so long ago. It also didn't seem to be of interest or significant in her experience, so instead I added a more reflective question: *How do you think your practice would be if you hadn't done the LINC Programme?* to try to get more of a sense of whether LINC had an impact on their overall practice.

3.6 Ethical considerations

There were many ethical considerations for this research study and in particular the areas identified by O'Leary (2017) that ethical guidelines for the conduct of this research ensured that the participants had a full understanding of what was involved so that their informed consent was given, and that I ensured that no emotional, psychological or physical harm came to them, and that confidentiality and anonymity were ensured. Approval was sought from the National College of Ireland (NCI) ethics committee in relation to these key areas and was granted based on key information below.

The participants' psychological and emotional well-being were supported by neutralising the power and influence I have as a researcher, and this started with the sampling process; deciding that graduates of the LINC programme would be included but not current learners, as this would negate some of the power position of having both interviewer and tutor

roles (O'Leary, 2017). I openly disclosed my role as LINC tutor to potential participants in both the *Recruitment Information* (Appendix iii) displayed as part of the Facebook post and then through the *Participation Information Form* (Appendix iv) sent by email once interest was shown. This was also mentioned, as a way offering reassurance and establishing trust, while organising the interview times and dates with participants through messages and phone calls, along with reassurance of their right to withdraw without consequence, as well as information on the interview questions and interview process in terms of being a chance to share their experiences in a less formal conversation format (O'Leary, 2017; Smith et al., 2009).

Participants' cognitive, emotional and physical wellbeing were considered and planned for on the day of the interview, and this involved informing participants that the process could take up to 90 minutes and that the interview could pause at any time for a break (O'Leary, 2017). Participants were provided with verbal and written explanations of their rights in relation to participation and the ability to withdraw at any time without penalty, before granting permission through signing the *Participant Consent Form* (Appendix v); they were also advised of the use of audio recording and permission was sought before recording took place. At the end of the interview process confirmation was sought on whether they were satisfied with the process and were happy to proceed with their interview being used, and verbal confirmation was given that a summary of the key themes and findings would be shared with them after August

2019 to give a sense of their part in the research (Smith et al., 2009). The participant information form had also previously informed participants that the whole research study in terms data and findings would be submitted to NCI for examination and dissemination. A follow up with the participant through email or phone call to thank them and confirm the timeline for the project was completed within 48 hours of the interview date.

Participants' social risk is managed by de-identifying all data related to each participant ensuring their privacy is maintained at all stages of the study. Confidentiality has been upheld during the research: names were removed along with any identifying information regarding their location and place of work when transcribing the audio. The audio files were recorded using the researcher's password protected smartphone, and were then transferred to a password protected, encrypted USB, along with the typed transcripts. Both the audio and transcript files are also being stored on a password protected MAXQDA account (MAXQDA, 2019) as part of the data analysis process. Any soft copy versions of the transcripts are stored in a locked cabinet. As researcher I have sole responsibility for safeguarding the data generated by the research.

3.7 Data analysis

The analysis of the semi-structured interviews involved thematic analysis and was underpinned by inductive reasoning with the raw data telling the story as each interview recording was listened to. This was an

iterative process, moving back and forth through the data thinking about it in different ways rather than one steps at a time (See Figure 1, p. 43) (Smith et al., 2009). Smith et al (2009) describe the thematic analysis process for IPA as an iterative and inductive cycle. I have created a display of the thematic analysis process with the interative and inductive processes included to help explain the steps used (Table 1).

Table 1 Thematic analysis steps

Thematic Analysis Steps	
Analytic Process	Iterative and Inductive Process
Organised Data	<ul style="list-style-type: none"> - Transcribed each interview - made initial notes - re-read and re- listened
Created code segments	<ul style="list-style-type: none"> - Line by line analysis: - highlighted distinctive responses and phrases - grouped using code segments (Appendix vi)
Identified emergent themes	<ul style="list-style-type: none"> - Searched for emergent patterns from code segments - reduced distinctive responses into simpler paraphrases (Appendix viii) - grouped using emergent themes for each interview
Identified clusters of meaning	<ul style="list-style-type: none"> - Combined emergent themes for all six interviews (appendix ix) - searched for patterns and connections between participants experiences that helped describe the phenomenon - created provisional themes (Appendix xi)
Finalised themes	<ul style="list-style-type: none"> - Reworked provisional themes (Appendix xii) - brought structural and textural description together to provide thick description of the phenomenon that addresses research question
Produced narrative accounts (Chapter 4)	<ul style="list-style-type: none"> - Combined participants words with my own interpretation of their experiences and the phenomenon - provided discussion and implications in terms of addressing the research question

I initially made notes straight after each interview to capture the essence and context of the interview experience for both of us. I uploaded the recordings to a MAXQDA qualitative software account (MAXQDA, 2019). Using MAXQDA I listened to the transcripts and read them a number of times, making initial notes about the way the participants talked and what they understood and thought about the experiences (Smith et al, 2009).

Through line by line analysis of the first interview I created code segments. This involved highlighting distinctive responses or phrases that gave a sense of what held meaning to the first participant in terms of relationships, processes and events and creating an in vivo code. After creating a range of in vivo codes using short phrases for the first interview I was then able to create coded segments (Appendix vi) to describe groupings of information (Creswell, 2007). I stored the distinctive responses for each interview within the notes of each coded segment on MAXQDA (Appendix vii) to maintain the richness of the data while reducing the volume of detail from the notes and transcripts (Smith et al., 2009).

My next step was to develop emergent themes from the code segments. This process involved moving away from the transcript to solely focus on the code segments with attached phrases. This process was part of the hermeneutic circle where the interview becomes a set of parts based on my interpretation and to be re-interpreted as I present the

analysis as findings (Smith et al., 2009). At this point I reviewed the distinctive responses or phrases, reducing them into simpler paraphrases (Appendix viii), which I used to look for patterns or connections which became the emergent themes (Appendix ix).

At this point I moved from working on one interview in isolation to combining the paraphrases within each emergent theme for all six interviews to search for clusters of meaning. This process involved looking for important and interesting connections between participants' experiences that would help address the research question, which also led to some themes being discarded (Smith et al., 2009). For example, the emergent theme: 'The essence of completing LINC' (Appendix x), while it did not become a final theme, it did provide valuable guidance on staying focused on the phenomenon while reducing the data and looking for clusters of meaning. Another example is the emergent theme: 'Motivation for doing LINC' did not address the research question in its own right, but aspects of it were used to add structural description to provide context to findings within Theme Four: Extending inclusive values, attitudes and beliefs (See pp. 90-91) (Bui, 2014; Creswell, 2007).

Six provisional themes containing seventeen clusters of meaning (Appendix xi) were formed during this process and addressed the research question in two ways. The first three themes were concerned with addressing 'how' the LINC programme impacted early childhood teachers' application of knowledge by identifying three distinct areas of

their ECEC practice that was impacted: Team leadership, Confidence in leading the inclusion of children with additional needs and having a Child-centred focus. The other three provisional themes were concerned with addressing 'why' the LINC programme was able to impact early childhood teachers' application of knowledge, and found that it provided opportunities for: Combining theory with everyday knowledge, Learning as a social process, and Reinforcing, extending and forming values, attitudes and beliefs.

However, some further abstraction and reduction was needed for these six provisional themes, so that a rich thick description could be provided to explain the participants' experiences and provide the context in which the phenomenon happened (Creswell, 2007; Smith et al., 2009). The provisional themes were divided and combined to form four new themes (Appendix xii) that provide the textural and structural description to explain the phenomenon.

Four final Themes emerged (See Figure 3, p. 61) from this abstraction and narrative description of the findings for each theme were produced, combining the participants' own words and my own interpretation to provide the structural and textural description of their experiences and the phenomenon. Discussion of the major findings and the implication in terms of addressing the research question will be explored in chapter four (Bui, 2014; Creswell, 2007; Huberman & Miles, 2002).

3.8 Limitations

The credibility and trustworthiness of the research design in terms of methodological approach, data collection, data analysis and presentation of the findings and conclusions in terms of the validity of the knowledge generated, are presented in Table. 2 followed by a discussion of the limitations.

Table 2 Credibility Indicators

Credibility Indicators	
Objectivity / Confirmability	<ul style="list-style-type: none"> - A clear sequence of data collection and analysis (See Table 1, p. 55) - Conclusions are linked back to the data (See Chapter 5) - Potential bias declared (See pp. 45-46)
Reliability/ Dependability	<ul style="list-style-type: none"> - The research question is clear and IPA methodology an appropriate choice to address it (See Figure 1, p. 43) - A partial check of codes and data by research supervisor - The researcher role is clearly described
Internal Validity/ Authenticity	<ul style="list-style-type: none"> - Thick description provided in the findings (See Chapter 4) - Findings linked to literature (see Chapter 4)
External Validity/ Transferability	<ul style="list-style-type: none"> - Characteristics of the sample provided (See Figure 2, p.48) - Thick description included detailed sequences of verbatim accounts from participants (See Chapter 4) - The outcomes in the conclusions are broad enough to be applicable to wider CPD and training in ECEC (see Chapter 5)

There are a number of limitations with this research design, however O' Leary (2017) points out that "*very few researchers get to conduct their studies in a way they consider ideal...*" (p. 65) and being able to identify strategies that have supported the gathering of credible data and generation of trustworthy results is important (O'Leary, 2017).

For this research study choosing a phenomenological methodology involved using a small sample size, which prevents any conclusions being generalised to the larger population of learners on the LINC programme, and it also has the possibility of limiting the transferability of the findings too, as the sampling may not accurately represent the population (O'Leary, 2017). However while a sample size of six is small, the authenticity comes from my ability to gather meaningful accounts of the participants' experiences rather than the number of being interviewed, and while it will have limited transferability, it may still produce interesting and valuable insights around CPD in ECEC (Creswell, 2007; Thorne et al., 2004) The authenticity was strengthened somewhat through my seeking of internal validity during the analysis from my supervisor, which helped to strengthen the credibility and rigor of the interpretations (Cohen et al., 2018; Smith et al., 2009).

Chapter 4: Findings and Discussion

4.1 Introduction

This chapter reports the findings with embedded discussion in relation to the four themes (Figure 3) that emerged from the data and thematic analysis process.

Figure 3 The Four Final Themes



These findings and discussion seek to address the research question *how does CPD through the LINC programme impact early childhood teachers' application of knowledge*, and achieve the aim *to develop insights into how the LINC Programme supports early childhood teachers' application of knowledge in their ECEC practice*, and the three objectives that guided the study:

- To explore early childhood teachers' experiences of CPD through LINC Programme

- To identify examples of early childhood teachers applying knowledge gained from the LINC Programme in their practice of working in an ECEC setting
- To understand how the LINC programme blended learning design has provided opportunities and supported early childhood teachers in their application of knowledge

The essence of each Theme is introduced below.

Theme One: Making theory real, identifies that the LINC programme guided the participants' ability to question and decide for themselves 'how do we' support those in the early childhood setting such as children or the team. Through reflective processes that the LINC programme provided they were able to combine theory and practice into their daily routines and this impacted their application of knowledge, leading to them making decisions for themselves within their early childhood settings.

Theme Two: Learning as a social process, identifies that the LINC programme facilitated participants to bring their own knowledge from practice and combine it with knowledge of other early childhood teachers. This process impacted their application of knowledge, leading to an awareness of seeking ideas from others and making the ideas work to benefit those in their setting.

Theme Three: Reinforcing child-centred values and strategies, identifies that the LINC programme supported participants by validating

what they were already doing in in their ECEC practice and also provided a space to hear new ideas. The process of able to build on their expertise and values impacted their application of knowledge, leading to positive changes to their child-centred approach.

Theme Four: Extending inclusive values, attitudes and beliefs, identifies that the LINC programme provided participants with knowledge and facts around supporting children with additional needs, and also importantly a sense of what inclusion means and looks like within their practice. The process of critical reflection on their values, attitudes and beliefs impacted their application of knowledge, leading to awareness that supporting children with additional needs involves having high expectations for them so they can participate like everyone else.

4.2. Theme One: Making theory real

A major finding for theme one is the confirmation that the LINC programme has impacted early childhood teachers' applications of knowledge. This has happened by providing opportunities for theory and practice to come together in combination with reflection, leading to the creation of professional knowledge (Campbell-Barr, 2018). Participants were able to combine this professional knowledge with their own daily practice and develop practical wisdom through the application of this

knowledge, so they could know how to do things that benefit the children, families and team in their ECEC setting (Campbell-Barr, 2019a).

The LINC programme content was grounded in a range of knowledge from theory, practice and values, as well as national documents and frameworks such as Aistear and Síolta that aligned well with recognised competences to support high quality ECEC provision (Urban et al., 2011). Participants identified some examples of specific content that was most significant in impacting their application of knowledge and changes to their ECEC practice.

A couple of participants felt that the learning on the national frameworks Aistear and Síolta was valuable to them to fill gaps in their knowledge due to limited previous training. While both of these participants have a wealth of experience, they explained that they hadn't really *"...touched on Aistear and Síolta"* (P02) and that *"...when Síolta and Aistear came out there was no real training for it ...you might get a workshop on something, but nobody really understood it to a certain extent"* (P06).

They felt that the knowledge gained *"...really labelled..."* (P02) what they were already doing and helped *"...to cement Aistear and Síolta into what you're doing on a daily basis."* (P06). P06 went on to explain that she found the learning and understanding on Aistear and Síolta *"...hugely impactful..."* explaining *"...that there's huge links..."* within the module content...". She went onto explain *"That's been very important to me"* in

her role as manager of a team that need support “*on a daily basis with children with additional needs...*” (P06). She identified that gaining this knowledge and being able to apply it in practice has given her the ability to encourage her team to think about what supports they need to be able to fulfil their role, to question “*...how do we support this child*” (P06).

These examples demonstrate how application of knowledge has been supported through the process of bringing together theory and practice to form professional knowledge that is then tied together with everyday practice and results in early childhood teachers “*coming to know-how to work with young children*” (Campbell-Barr, 2019a)

P06 provided another example of coming to know how to support a member of her team help a new baby to settle into her ECEC setting by providing a scenario:

we've got this child, he's coming in three days a week...you have a four day gap...this is his third week...he has no secure base...he hasn't formed proper attachments yet...so what you always have to be looking at is how do we use positive language and positive messages to this child that everything is okay...
(P06)

P06 explained that she “*...wouldn't have known that...*” before the LINC programme, and that her ability to provide this support is based on her “*rethinking about the theorists and attachment...*” that she “*...learned from LINC...*”. Making the theory real is still part of her approach to supporting her team to make sense of things: “*...I will go in and I will sit in*

the rooms and I will watch the interactions, I will watch what goes on...I'll try and...link in that way" (P06).

This example shows P06 as an agent of change within her own ECEC setting, and this has happened through the process of cementing the child development theories into practice, and introducing them to the team through collaborative questioning, leading to application of knowledge that guides 'how do we' do things that benefit those in the setting (Bove, et al., 2018).

In her role as manager P06 has extended her support to the team further by introducing a support and supervision approach that is based on her application of knowledge acquired from the LINC programme. She explained that supporting the team and cascading learning was really important to her, identifying that it *"...was something that I've always done in my career..."* and specifically *"...had done a lot around support and supervision..."*. P06 explained that learning about Gibbs' reflective cycle in one of the modules led to the introduction of *"...a whole new method of support and supervision based on Gibbs theory...and that was really exciting..."* (P06).

Being able to apply knowledge on Gibbs reflective cycle to introduce a system of leading, motivating and encouraging the team through a reflective process supports operational quality and contributes to high quality ECEC provision (Urban et al., 2011).

P06 provided a range of examples showing how the LINC programme supported her application of knowledge through making theory real and she also went on to explain that the reflective process within the lessons contributed to this. She felt that the reflective process was valuable in cementing ideas and supporting her application of knowledge by giving her a sense of how things could work back in her ECEC setting. This can be explained by the suggestion of Urban et al (2011) that knowledge, practice and values become knowing, doing and being when early childhood teachers have opportunities to critically reflect. Their application of knowledge is supported when they can connect their professional knowledge through critical reflection, so they gain a sense of how to do things: practical wisdom (Campbell-Barr, 2019a).

P06 provided an example of developing that sense of knowing through reflection. She reported that “...*the reflective way the modules are put together...*” (P06) particularly the online lesson format of listening and viewing pre-recorded slides which left prompts to pause and reflect on the learning “...*helped cement it in your head...*” (P06).

P06 went on to explain how the reflective process prepared her for doing things to benefit her own ECEC practice. She felt reflecting and writing the 200-word forum posts after watching sets of online lessons supported understanding. And emphasised that this process helped her to think about how the ideas being covered could be brought back to her own

practice, explaining it “... *really made you think about where this is going and how it works...*” (P06).

As owner of a setting, P03 provided the example of reflecting on her own role through the online lessons which supported her sense of being a good leader in terms of motivating staff and getting the best out of them:

I found the leadership element that we did on the course...about being a leader versus manager...very interesting...I even discussed that with the girls and I just said...it's very evident I'm not a good manager but I'm a very good leader... (P03).

The strengths in her leadership approach would also have been reinforced with what she learned and shared on the forum post. She explained:

...that in the past I might have expected the same from everybody. But I've learned that actually...we all have different skills and... you have to acknowledge that and strengths...You know it did make me reflect on my own team and...the different areas of strength and...areas where people are less confident... (P03).

Overall the findings within this theme demonstrate that the participants developed specialised professional knowledge in the areas of the national frameworks, child development theory and team leadership. Developing this professional knowledge was underpinned by the reflective process within the course design that supported participants with making theory real and supported their application of this knowledge. The application of this knowledge resulted in a growing autonomy in knowing and deciding for themselves how to do things to benefit those in their

ECEC settings. This could be seen in the participants examples of being responsive leaders; encouraging warm interactions and supportive relationships with the children and team. These examples of knowing, doing and being demonstrate that the participants built professional knowledge, practice and showed professional values that are part of professional competence within high quality ECEC as suggested by the CoRe report (Urban et al., 2011).

4.3 Theme Two: Learning as a social process

A major finding was that the LINC programme impacted early childhood teachers' application of knowledge by facilitating the sharing ideas within their cohort, so that they were able to bring together their own knowledge from practice and combine it with the knowledge and experience of others and apply this to their own ECEC settings context. The LINC programme was able to support this through its blended learning design that offered both face to face and online opportunities to share learning and practice within a community of practice.

Participants recognised and valued how the LINC programme facilitated the sharing of the early childhood teachers' wealth of experience. P06 felt that "*...the experience that's in those groups is just huge. If you were to add the years that people had put in, it would be massive.*" And she recognised the important role that her tutor played in

facilitating the sharing of ideas during the face to face sessions, in allowing time for people to talk “...and using the group and the experience...” (P06) as a way to share ideas on supporting children and their families.

This role of the tutor in facilitating the sharing of experience demonstrates the LINC programme’s emphasis on pedagogy over technology: this is provided through visible tutor support and opportunities for combining learning with practical experiences from practice in its blended learning design (Breen, et al., 2018; Hughes, 2007; LINC Consortium, 2019). The tutor support and lesson design are part of the teaching presence element of the Community of Inquiry (CoI) that this blended learning design supports (Akyol et al., 2009; Swan et al., 2008).

Participants identified that having time to share ideas also had a positive impact on their sense of belonging and feeling connected with the other early childhood teachers, and this can be identified as an example of social presence within a CoI (Swan et al., 2008; Szeto, 2015). One participant highlighted that the face to face provided “...lots of time for people to talk...whereas the rest of the time you're on your own” [due to the online element] (P06). Another participant confirmed the value of these shared moments of learning and practice, explaining: “*The Saturday classes...it was comradeship...to be able to share the information that I had with other people and they share with us. So...you weren't isolated*” (P02).

The comradeship identified by P02 is an example of the formation of a community of practice as both experienced and less experienced early childhood teachers engage in discourse about ECEC practice, leading to shared memories and reflection, and a sense of belonging (Lave & Wenger, 2002; LINC Consortium, 2019).

Another participant explained how she benefitted from being able to share her experiences, after initially being “... *very sceptical about doing an online course...*” because she wouldn’t “...*get the same out of it...*” (P03). Her view changed once she realised that the level of experience within the group was diverse and that her own wealth of experience and knowledge was of benefit to others, and this added to her own feelings of self-belief. She explained that:

Because of my experience and ...my prior learning as well ...I know that I contributed in a positive way ...to the ...face to face ...I could give an example about anything ...So, whether it's parents, children, staff you know I've had experiences of the lot ...the questions I asked were very pertinent ...they could open up debates (P03).

This extended to the forum post discussion too:

...I took a lot of time and care over the discussion forums because I knew other people were reading them you know ...So it wasn't just lash it down, the 200 words and click send... I...look back and think actually I helped others in my own way in that course as well (P03).

The examples P03 provided can be explained by Lave and Wenger’s Communities of Practice (CoP); in her role as an experienced early childhood teacher P03 was able to share her wealth of knowledge so

that those with less experience could combine it with their own knowledge, and become more experienced as they apply that knowledge back in their own ECEC settings (Egan, 2009; Lave & Wenger, 2002).

Participants valued hearing the wealth of experience of others within a community of practice, and the forum posts, face to face sessions and online tutorials were all identified as providing opportunities to hear different points of view on ways of doing things in ECEC practice. For one participant the forum posts opened up the opportunity to read other people's ideas and she explained: "*...I found it fascinating how different people interpreted...seeing something...I hadn't actually thought about it from that point of view at all*" (P05).

P06 highlighted that "*...it was interesting to hear the experience of people...*" at the face to face sessions, and she explained how it was particularly valuable "*...to hear about how people would deal with either a child that had additional needs, and how they were able to help a parent access things that you might not have thought of...*". P04 highlighted that during the face to face sessions small group conversations were shared back to the large group and these opportunities "*... just kind of sparks ideas in your head and if somebody was discussing something that they did that worked, you'd be like oh right we could try that...and bring that into our own practice*".

P05 identified that the "*...Emotions Tree...*" visual display she created to support children to express their emotions came from

specialised knowledge being shared through the weekly live online tutorials. She explained that “...it planted the seed and then I did it how to suit us...I found it very useful (P05).

These examples of early childhood teachers sharing different specialised knowledge and experiences with each other are part of the process of centripetal participation in a community of practice and can be identified as part of cognitive presence within a CoI (Akyol et al., 2009; Egan, 2009; Lave & Wenger, 2002). In particular the cognitive presence element of the blended learning design supported P05 to construct meaning within a CoI, through the sharing of ideas, and to build knowledge as explained by the practical inquiry model, leading to her application of this knowledge as she integrated someone else’s ideas with her own understanding of what would work best in her ECEC setting (Akyol & garrison, 2011).

Participants confirmed that small group practical activities added to their learning but importantly also supported relationships to grow amongst the early childhood teachers as they “...got to know people...” and “...you met other people and it was interesting...”. Feeling connected is an important part of the social presence element within the blended learning design and this was significant for many participants (Szeto, 2015).

These examples signal participants’ sense of membership to the community of early childhood teachers, and this is part of the move from centripetal participation to legitimate peripheral participation as identified

by Lave and Wenger in relation to CoP (Lave & Wenger, 2002). One participant described this sense of membership as “...*almost establishing a network...*” (P05) which she felt was lacking and something she was accustomed to from working in another country. She went on to explain how the

... LINC programme did open it up a little bit... because... we set up a Facebook support group... I think it's great because we share ideas there...So, in a way...you're still getting ideas and people putting ideas that they bring...I think the LINC opened that for me and I really think that's great (P05).

Urban et al (2011) suggest that being part of a community or network of early childhood teachers contributes to high quality ECEC provision.

The process of sharing of learning and practice also filtered back to the teams within participants ECEC settings. P05 noted how the LINC programme introduced her to the concept of cascading learning to her team, and her application of this knowledge involved introducing a team notice board rather than relying on the usual verbal sharing of ideas within the preschool. She explained: “...*we were better at cascading it... we really are sharing and learning from each other... having it on the notice board does make a difference...*” (P05).

P05 pointed out that the real change in the sharing and learning within the team was the move from being centred on the happenings within the setting to now including ideas and strategies from other people's ECEC practice, leading to “...debates...” as they think about how that

might work for them. P05 went on to explain that engaging in wider ECEC discourse has also extended to their team WhatsApp group:

...we have a WhatsApp group which we share links and things...with each other...and...although we were already doing the WhatsApp group, I'd say we were talking more about specifically here in school...I think after doing the LINC course we started sharing. I started putting on bits of information...about early childhood, but might not be related just to here...and...it's kind of had a knock-on effect that way...opened up discussions... (P05).

These examples show a move away from talking about their own ECEC practice to now engaging in discourse that includes exchanges of information and stories about moments from the wider ECEC community and this process is part of legitimate peripheral participation (Lave & Wenger, 2002). The value of engaging in discourse as a team within the ECEC setting is that it supports communal memory and reflection of the knowledge being circulated, so that they can apply this knowledge when needed as a way to guide them on how to do things to benefit those in the setting (Campbell-Barr, 2019a; Lave & Wenger, 2002).

Overall these findings show the effectiveness of the blended learning design encouraged deep and meaningful inquiry and learning within a CoI (Swan et al., 2008). Participants valued having opportunities to share their expertise and to hear other early childhood teachers experiences from practice and engage in discourse as they tied it into the content being discussed, and this supported their sense of social presence within a community of ECEC professionals (Lave & Wenger, 2002; Szeto, 2015). They found that opportunities for discourse were facilitated by their

tutor as part of the teaching presence within both the online and face to face elements of the blended learning design provided (Akyol et al., 2009; LINC Consortium, 2019). Participant's application of knowledge was supported through the cognitive presence element of the blended learning design (Akyol et al., 2009; Swan et al., 2008). Their examples showed that they were in a position to combine other people's ideas with their own knowledge through the shared discourse and then determine what knowledge is useful to them and how it is best applied to meet the needs of those in their own ECEC setting (Akyol & Garrison, 2011; Campbell-Barr, 2019a; Egan, 2009). Participants examples also show that they brought back the process of engaging in discourse to their team, as a way of supporting decision making on how to apply other people's ideas to their own ECEC setting.

4.4 Theme Three: Reinforcing child-centred values and strategies

The major finding from theme three was that the LINC programme did impact early childhood teachers' application of knowledge by giving them the chance to recontextualise the knowledge and values they already had on child-centred practice with new ideas from the lesson content and ideas being shared, which has led to changes that benefitted (enhanced the learning experiences of) the children in their early years setting.

Campbell-Barr (2019b) defines a child-centred approach in terms of early childhood teachers having a good understanding of how children develop and learn best, so that they can be supported to explore and make decisions about their own learning. Being child-centred was an identifiable feature of all participants' practice, and there was a consensus from them that the LINC programme wasn't responsible for this, as it was already part of their own values on how children learn best.

One participant explains since completing her degree in ECEC:

"...I would have been...very much child led practice...anyway...and there's nothing on the course that I said actually you know I shouldn't be doing that...It validated that what we're doing..." (P03).

Participants felt that the LINC programme "*reiterated...reawakened values...refreshes your memory...reinforced...and...reaffirmed what I was doing was right*". One participant recognised that the LINC programme "*...was CPD...and it sort of refreshed things that were in my mind and reawakened values that I would have had that probably just went dormant for a while...*" (P02).

P01 makes it clear that the LINC programme did not provide her with lots of new knowledge on following a child-led approach, because "*...it's kind of the approach they use here anyway because it's... the voice of the child*" (P01). She did however feel that her practice is now so inclusive and that "*...LINC just kind of reaffirmed what I was doing was right*". (P01). This can be explained using Bernstein's ideas on recontextualising knowledge, practice and values to form new professional knowledge that

can be applied to benefit the children in her ECEC setting (Campbell-Barr, 2019a, p142).

P01 provided an example of her application of this recontextualised knowledge, explaining that her ECEC setting was following the HighScope approach which was more rigid in approach than her own beliefs and attitudes to how children learn best in terms of routine structure, and the LINC programme reaffirmed those beliefs, giving her permission to take a more blended and flexible approach to a child led curriculum. *“We’re more flexible now...we were HighScope...So, we’ve learned we take the good bits out of all the curriculums now...and follow the child’s lead, whatever their interest, and need is...” (P01).*

Some child-centred strategies she’s introduced as a result of completing the LINC programme include supporting children to feel involved with the transitions within the routine, through a change in the mindset of the team in approaching and talking to children,

...it’s taking the time and explaining...” the transition, “...and the countdown...we’re going to go now in three minutes, two minutes”. As well as “...using visual aids and stuff...we do the whole routine now and we have it all in visual aids. We wouldn’t have had that before (P01).

At the root of her own values is viewpoint *“... what’s the point making a child do something they don’t want to do...the trauma of just doing...who’s it for?” (P01)* and she shares this questioning approach with her team which has been reinforced through the LINC programme, and is

an example of her application of knowledge leading to practical wisdom on how to do things to benefit the children (Campbell-Barr, 2019).

P01 identified some other examples of her application of knowledge supporting children in democratic and participatory ways (Campbell-Barr, 2016; 2019b).

...we're just so inclusive, like everything even the sensory corner...dinner time, not making the child sit down...and we have the quiet...tent now as well, and they know themselves if they want some time out and space they'll go and get the tent...not trying to force them to touch stuff or leaving it for them to explore themselves... (P01).

And noted that there's "*...a lot more play...and not worrying about mess...a lot more messy play...we use loads of sensory stuff, loads of sensory bags which we would have got from LINC as well*" (P01).

The LINC programme reinforced participants' knowledge of the benefits of following an emergent curriculum to support child-centred and inclusive practice as part of the module *Curriculum for Inclusion* which was grounded in knowledge, practice and values on the rights of children to be involved in decision making and to express themselves. (LINC Consortium, 2019; Urban et al, 2011). One participant identified that the lesson content gave her "*...a better understanding of what an emerging inclusive curriculum was*" (P02) and introduced ideas and values within the Emergent Curriculum and the Reggio Emilia approach which she could relate to in her own inclusive and diverse approach and philosophy for working with young children.

Part of her own philosophy involved “...*taking into consideration what the child says...*” (P02), and the LINC programme reinforced this philosophy which resulted in her “...*including the children in more of the decision making...*” (P02) leading to “...*one of the biggest changes...*” (P02) she made in the classroom. Bringing the team on board with having “...*the environment to suit the needs the child and making sure that everything was accessible*” (P02) was part of this, and involved encouraging them to see solutions to making the play materials accessible rather having some of them stored at adult height. She described an example that demonstrated her application of knowledge and practical wisdom as she involves the team in deciding how to do things to benefit the children (Campbell-Barr, 2019; Egan, 2009):

...we have a big tall shelf. And when I was a teacher all my resources would have been off the top, and the kids would have been down the bottom. But what has happened over the years is the toys that are not being used are up on the top so that the children can't reach them without adult participation... (P02).

So, a decision was made to “...*rotate the toys with the other rooms and then they're all on the bottom shelves...*”(P02).

P02 provided another example of child-centred knowledge being reinforced and applied in practice that involved inviting “... *the children to take pictures of themselves... they could make funny faces or sad faces or that sort of thing...it was just involving them more in decision making than an activity*” (P02). She explained her drive to move away from task orientated activities as being “...*about hands on activities for the children*

and that they're included in everything and that it's...at the child's pace..." (P02). P02 explained that moving at the child's pace also extended to the daily routine with the introduction of a snack bar so children could choose to eat at a time that suited them, rather than following a more rigid snack time schedule. She explained that these changes were influenced by *"...something that was discussed...that would come out of...one of the lessons"* (P02).

Another participant explained that following *"...the voice of the child"* (P01) and involving children in decision-making is the approach they use in their setting anyway, and that ideas she got from the LINC programme reinforced her everyday experiential knowledge adding to her professional knowledge as it was recontextualised (Campbell-Barr, 2019a). An example she provided of these knowledge, practice and values being recontextualised and applied in practice involved the children initiating and leading the creation of a sensory space within the setting.

...our sensory area...the kids just made it themselves...one day we were talking to them and they were saying about another child doesn't like loud noises...and they were saying it would be lovely if she had somewhere nice to go, just to get away from that, so they just came up with the plan of making a nice area...It's just really simple stuff,...but...by really listening to them, you really have to change, because I was thinking sensory stuff, I'm going to have to buy this and this and this, where actually when they designed it and did it themselves...it didn't cost anything...And they did drawings and did, they planned the whole, made a whole...project (P01).

Some other participants identified that they developed competences in supporting childrens' discovery (Urban et al., 2011). P02 explained that she extended her approach of listening to and including

children in decision making to also encouraging children to inquire. She explained that “...*LINC would have started me off with...asking open ended questions and teaching others to get down to the level rather than standing up here and talking down there...*” and her application of that knowledge involved extending this approach into a probing style of questioning that encouraged possibility thinking, she explained “...*instead of asking them a questions like 'what', 'why', I'd be like 'I wonder if' 'I wonder how'...*” (P02). She goes on to explain that these changes have supported her to realise how satisfying working with children is and explains: “...*it's my interactions with the children...it's sort of revived my motivation*” (P02).

Another participant identified how she decided to introduce reflection to the children in her setting as part of the daily routine.

I'd read a little bit [about HighScope]...I loved their planning first and reflecting and never thought...about it until I was doing the LINC course, they were talking about reflecting...that I suddenly thought you know what, why...don't we. So...I always actually use the word reflecting to the children, I say now let's reflect on what we've done today...that's...come from a mixture of knowing and watching my child...years ago and then doing the LINC...I've always reflected, but actually using the words I think came from LINC...at...one of the face to faces...we teach that to the children from the beginning...a hugely positive experience (P05).

Her decision can be explained as a process of recontextualising her belief that young children should have opportunities to reflect, with experiences of her child attending a preschool with a reflective element along with lesson content and discussion on reflection which led to the

formation of professional knowledge which she applied to her own ECEC practice (Campbell-Barr, 2019a).

One participant explained having respectful and caring approach to speaking to children was something she valued, and she noted that although she would have gained this knowledge from her degree, that doing LINC “...*just kind of refreshes your memory...and how to...speak to children maybe about something in particular...*”. She gives the example:

...we've a couple of children that...can easily get very upset...you can just see it building in him straight away and he'll just go bright red and just he'd want to explode. So, the way I would speak to him...get down to his level and...talking him through his emotions...and...explaining that it's okay to have these emotions...I would have...” been like that before LINC, “...*but it's...reinforced* (P04).

The process of P04 bringing her previous experiential knowledge and values and having them reinforced through the content and ideas being shared within the LINC programme, supported her motivation in making sure this knowledge was being applied in her daily ECEC practice, and contributed to the process of continually improving child-centred practice (Bove et al., 2018).

Participants also identified child-centred changes to their approach to observing and documenting learning. These changes supported following childrens' interests, and a strengths-based approach to supporting childrens' learning and development underpinned by Aistear, which contributes to a high-quality child-centred approach (Campbell-Barr, 2016; 2019b; Urban et al., 2011). The LINC programme provides content

in these areas particularly within the *Child Development and Curriculum for Inclusion* modules (LINC Consortium, 2019). Some participants highlighted their use of child-centred observations and documenting of learning and explained how the LINC programme reinforced what they were doing, but also enhanced their approach further.

One participant detailed how LINC “*reinforced...*” and “*...validated what I’m already doing*” (P03) regarding a child-centred approach to observations and documenting learning. She explains that: “*...our observations now are Aistear based...very much...learning records...and...anecdotal things...they all have a learning journal...So we’re...basing everything on their strengths and their interests...*” (P03).

This participant went on and described how she was influenced through the process of sharing of ideas on the LINC programme and her application of this knowledge led to a new approach for documenting and a move away from prescriptive checklist observations. She described how she introduced a strengths-based communication book to document moments for the child and shared it with team and parents, and this is an example of her practical wisdom in knowing how to work with young children (Campbell-Barr, 2019a).

We now have a book...which we record if we have a concern about a child, but it's a very much strength-based report...we're writing little post-its stickers. putting them into this book, and as I...stressed the girls, you know this is very much strengths based...we're writing this because it's got to be very positive...and...when I have the conversation with the parent I'll be able to show them this, they can read everything. I would have been one that did these stupid checklists every three months, which we put into a file put away and never looked at...whereas our observations now are very much changed and they're all strengths based and everything...So that's something...positive that I introduced... I think it came up in the face to face actually (P03).

Another participant described how her idea for capturing those ‘in the moment’ snapshots of the childrens learning using post-its, came from the lessons which she applied to her own practice, which she shared with her team as part of her practical wisdom of gaining a sense of how to do things (Campbell-Barr, 2019a). She explained that:

...the post-it's for the observations...were totally LINC...I think...one of the videos...of one of the other schools...on...how they'd have post-its and put pens...dotted all around the place...so that we can just grab one whatever direction we are in...it was definitely from LINC. We really go on these ones [post-its observations] now...The children are definitely benefiting from...putting all that information up there... (P05).

Overall the findings for this theme show participants child-centred knowledge base being reinforced. Participants provided examples of child-centred practice that supports the child in discovery, exploration and making decisions about their own learning, and uses effective approaches for observing and documenting their learning (Campbell-Barr, 2019b; Urban et al., 2011). These examples show that participants were able to combine their previous knowledge practice and values with new knowledge from the lesson content and sharing of practice and apply this contextualized knowledge in their own ECEC practice (Campbell-Barr, 2019a; 2018; LINC Consortium, 2019). The application of this knowledge has contributed to their growing practical wisdom in knowing how to work with young children, and this supports their ability to provide high quality ECEC provision (Campbell-Barr, 2019a; Urban et al., 2011).

4.5 Theme Four: Extending inclusive values, attitudes and beliefs

A major finding from theme four was that the LINC programme impacted early childhood teachers' application of knowledge by providing opportunities to build a strong knowledge base in relation to leading inclusive practice inclusion that was supported by their engagement in critical reflection before, during and after learning and practice moments. This process has supported them to extend their knowledge, values and practice for leading the inclusion of children with additional needs within their ECEC setting, which supports high quality ECEC provision (Campbell-Barr, 2019; LINC Consortium, 2019), and will be discussed below.

Participants acknowledged that the LINC programme provided them with knowledge and terminology around disability and the inclusion of children with additional needs through the content of the lessons. One participant noted:

I would have I would have gained a lot of knowledge about different disabilities...especially I suppose with children with additional needs...thinking back to the videos that I watched...the readings...I...very much learnt from them... (P03).

While another participant highlighted specific areas of the LINC programme “...It was...watching ...YouTube clips, a lot of the notes, and the lessons...and there was especially that Samuel (video)...” (P05). For another participant two specific modules stood out “*The Inclusion*

Concepts and Strategies and The Leadership for Inclusion...they were able to give me terms to label things... (P02).

Providing this knowledge was an important feature of the innovative CPD the LINC programme provides; it was designed and funded with the purpose to help early childhood teachers address social inequality, lead inclusion and thereby transform the lives of the children and families (Breen et al, 2018; IDG, 2015b; Jensen & Iannone, 2018). Participants felt their values were already aligned with leading inclusion, identifying “*I would be very inclusive I feel in my practice...*” (P03) and that the motivating factor in signing up to the LINC programme was to “*...find out how to help...*” (P01) children with additional needs, and “*...to be more inclusive... to be more aware, of the differences on how to promote them more and to bring that into the children's lives as well*” (P04). While another participant mentioned the importance of wanting to be able to support the parents in her role as inclusion co-ordinator (INCO),

...it would have been around the inclusion...it was really to add on to my knowledge and to support me because I was already doing that work... already doing the work of an INCO and this really just added on how to do it properly how to support our parents... (P06).

The LINC programme provided the opportunities to connect knowledge with practice and values, which contributed to a sense of growing confidence amongst the participants in leading the inclusion of children with additional needs amongst participants (LINC Consortium, 2019). Some participants explained their confidence grew in the area of

working with parents to support their child. One participant identified that this confidence grew because the LINC programme clarified her own values “...around supporting people, supporting those on the margins, supporting people that have issues that...don't know where to find support” and then gave “...theory and purpose behind why you support parents on that journey that they have if there's difficulties...particularly with children with additional needs” (P06).

Another participant noted that she was

...definitely more confident and...able to talk...about the child better, and you're able to talk to parents because you have more knowledge...since I've done the course, I can. I'm able to talk to them...the language...terminology. Knowing what to say and what not to say... (P01).

The content also supported early childhood teachers to build a strong knowledge-base in relation to supporting inclusion by providing a mix of knowledge (episteme) and skills (techne) (Campbell-Barr, 2019a). One participant identified that “...between the LINC and my knowledge and everything I feel much more confident...” (P03) in relation to being prepared to lead the AIM application process for organising support for a child with additional needs. For another participant the LINC forum post activity to create an AIM information sheet for parents and staff was noted as being of support:

...I remember we had to put...a booklet type of thing together...an information sheet... and having the confidence and the knowledge to know... just refreshing it all and then knowing exactly how the process goes through AIM... (P04).

The role of reflection supporting application of knowledge and making decisions on how to make improvements was identified by a manager (Bove et al., 2018; Egan, 2009) *“I am more mindful of inclusive practice...probably when I’m planning things you know I am at the back of my head, could every child do this...so I reflect more maybe...”* (P03). She shared the example of being mindful when making decisions on new playground equipment:

I had applied for funding for the outdoor...and...I suppose because I was still in the middle of doing the LINC course very much picked stuff with a view to inclusion...so for example I actually chose one of the big pieces of equipment that... was a wheelchair friendly kind of a ramp...they call it the ship... you know a wheelchair could go up and down (P03).

The reflective process was also identified as supporting a manager’s ability to talk confidently with specialists and the team in relation to supporting children with additional needs (LINC Consortium, 2019; Urban et al., 2011). She now felt she could communicate at the same level as the Speech and Language Therapists (SLT) and Occupational Therapists (OT), and her own degree qualified team members during meetings.

...as an INCO I’m actually directly linking with those SLT’s and OT’s... I would say...you understand a lot of the language that they use...I think without the LINC programme I might not have felt at their level because obviously the SLT’s...and the OT’s are very highly trained, and then I had these three very highly trained childcare workers sitting there and you could have just sat there and kind of gone I have no idea what’s going on here, but I think LINC did lead into all of that. It is just the way the modules are put together, the reflective way the modules are put together (P06).

For one participant LINC gave her an insight into inclusion involving children with additional needs. She notes

...I would have been seeing inclusive...more of dealing with people from different races, different cultures, different background having come from Africa and having different backgrounds. So, I feel very strongly about that, and...I do think LINC really opened my eyes to the inclusion being much more than culture...(P05).

This participant also explained the moment of seeing the difference between integration and inclusion as she applied what she had learned from the LINC Programme to support a child with additional needs to be able to actively participate in the pre-school (Bove et al., 2018).

...I think I would have told you before, that oh I'm inclusive but...I was thinking actually I'm not really, because the child's in here, but he can't get to the garden... they were just integrated, they weren't included...I think there's a lot that's changed that we...weren't doing before, or we were doing it but maybe not fully appreciating...being...inclusive with children with additional needs...I was thinking of...inclusive being not as big...when we had that child that was a huge thing...and I now I realise that I think we could do that again... definitely (P05).

For her the Samuel video was a standout moment in supporting the inclusion of a child with cerebral palsy into the preschool. The video she referred to is a short YouTube video that explores moments in the life of a boy with cerebral palsy, capturing his relationships with his family, the teachers and his peers within the classroom. This video promotes inclusion by placing Samuel at the centre, and not his disability.

...while I was doing LINC we had a little boy in here who was in a wheelchair and was non-verbal with cerebral palsy and...even though I have worked with children with additional needs in the past...I hadn't had a child with that level of additional needs in this environment...but what happened was...through the LINC was watching a lot of...YouTube clips, a lot of the notes, and the lessons, and things like that and there was especially that Samuel (video)... (P05).

The Samuel video opened up ideas on how she could provide an inclusive environment that the child could actively participate in, and she describes the moment of realising he was guiding her to bring him down to the floor to play alongside everyone else and this was him actively participating.

...he loved being with the other children and then in the garden, he loved it in the summer...we have the water shell thing and I took a table out put it on so that we could put the wheelchair there so he could reach it and he...didn't like. He kept looking...at the floor, and...we put it back on the floor and lifted him out of the wheelchair...and...we just put a mat on the floor for him to sit on, the other children were all sitting around it...and he was part of the group and he loved it, absolutely loved it... (P05).

Through the process of critical reflection, she was able to become an agent of change within her ECEC setting and identify a moment where this change in her inclusive practice happened which she described as when the child 'kept looking at the floor' and she moved him to the floor to be part of the group (Bove et al., 2018). Critical reflection was happening before, during and after this moment in her practice and this impacted her application of knowledge as she came to know-how to support the inclusion of this child and others in the future (Campbell-Barr, 2019a; LINC Consortium, 2019).

Another aspect of inclusion that was identified by a couple of participants is that *there are high expectation for all children*, which features on the LINC competency framework (Breen et al., 2018) (Appendix i) and can be explained as all children being supported to reach

their potential and that just because a child has an additional need does not mean they cannot have the same aims as other children.

One participant explained that she gained a greater understanding of children with additional needs being supported to reach their potential, that “...it's a longer process, it just might take them longer to get to where they're going...” (P01).

For another participant a clear path to finding out how to help was visible as she explained the formation of this new value *there are high expectations for all children* grew from her own values about supporting those in the margins and was

...the one thing that I know I learned from LINC, that it's the one piece that I hold in my heart everywhere I go now is that we have to have the same expectation for every child. And that was something that came through from LINC... (P06).

This led to the application of that knowledge in her own ECEC practice as she critically reflected and encouraged her team to question what high expectations for all children means for those in her setting and how they would implement it. She goes on to explain:

...that's the one piece that I've brought back to all of the staff... trying to get across...that...you have to bring that child into that with the expectation that she's as capable of that, in her way as anybody else. And I think that's what I learned from LINC...And if you hold that in your head and what that actually means, I think that's hugely beneficial (P06).

Encouraging her team to question what having high expectations means has been her approach to applying it in practice, and has supported her in improving her practice (Bove et al., 2018):

...it's something you think you know, but actually you have to really think about that. What does that mean? How do I implement that? How do I think I'm going to help this child who's non-verbal, who doesn't listen, who's not interacting... (P06).

For P06 being able to determine what knowledge is useful and how its best applied to bring about those improvements is a valuable characteristic of CPD through the LINC programme (Campbell-Barr, 2019a, p. 142; Bove, et al., 2018, p. p35). Forming specialised professional knowledge situated around inclusive values and beliefs combined with the process of critical reflection has supported her knowledge, practice and values to become, knowing, doing and being (LINC Consortium, 2019; Urban et al., 2011). This has enabled her to become an agent of change in the context of inclusive practice, which supports high quality ECEC provision within her ECEC setting (Bove et al., 2018; Campbell-Barr, 2019a).

Overall the findings within this theme demonstrate that the LINC programme has extended early childhood teachers' inclusive values, attitudes and beliefs through a process of introducing theory and skills in relation to supporting additional needs (LINC Consortium, 2019). Importantly it also facilitated growing awareness through content such as the videos, that added to participants understanding. The greatest impact on participants' application of knowledge in relation to inclusive practice

was the process of critical reflection before, during and after (LINC Consortium, 2019). This supported them to make decisions, and be aware and responsive to children, families and the team, so that they could gain a sense of how to do things rather than being focused on achieving end goals (Campbell-Barr, 2019a).

4.6 Conclusion

This chapter reported the findings and provided discussion with related literature in relation to the four themes (see Figure 3, p. 61). The findings met the objectives of the study and addressed the research question by exploring early childhood teachers' experiences and examples of applying knowledge gained from the LINC Programme in their practice of working in an ECEC setting. This provided an understanding of how the LINC programme blended learning design has provided opportunities and supported them in their application of knowledge. The final chapter will provide a detailed conclusion on the findings of this research study.

Chapter 5 Study Conclusion and Future Perspectives

5.1 Introduction

This chapter provides a conclusion to the study based on the research question *how does CPD through the LINC programme impact early childhood teachers' application of knowledge*. This question is underpinned by the issue that *although high quality ECEC provision is linked to the qualifications of early childhood teachers, qualifications alone cannot bring about high quality; the content, form and characteristics of the CPD also need to be considered, in particular to enable early childhood teachers to apply knowledge in their own practice*.

This study identified four underlying themes that CPD through the LINC programme supported:

- Making theory real
- Learning as a social process
- Reinforcing child-centred values and strategies
- Extending inclusive values, attitudes and beliefs

Based on this conclusion, implications and recommendations for future CPD in ECEC are provided. The limitations of the study are also discussed giving insight into the validity of the knowledge that has been generated, along with recommendations for further research that can build on the insights and findings of this research study.

5.2 Conclusion of the Study

The individual findings were discussed in Chapter 4, and in this chapter a summary of the findings from the four themes provides a fuller picture of the impact that the LINC programme had on early childhood teachers' application of knowledge in terms of supporting high quality child centred and inclusive ECEC provision, in relation to addressing the research question, aim and objectives of this study.

In essence the process of developing professional knowledge during the LINC programme and going on to combine and apply it with their own practice led to early childhood teachers' *phronesis*, a practical wisdom on how to do things to benefit those in their own settings (Campbell-Barr, 2019a; Egan, 2009). This can be explained as follows:

The participants highlighted that the LINC programme provided content that built their knowledge, practice and values in the areas of leadership, additional needs, inclusion and child-centred practice (LINC Consortium, 2019; Urban et al., 2011). The reflective processes built into the online design supported participants with combining theory within their daily ECEC practice. Participants identified that both the online and face to face elements of the blended learning pedagogy provided a Community of Inquiry with opportunities for reflection and discourse within a community of practice (LINC Consortium, 2019; Swan et al., 2001). These opportunities were significant in supporting them to recontextualise their own knowledge, practice and values (Egan, 2009; Osgood, 2010). The

process of combining new knowledge with their own knowledge and practice and values helped to develop specialised professional ECEC knowledge which could be seen in the areas of child-centred practice and leading inclusion (Campbell-Barr, 2018). Opportunities to engage in critical reflection before, during and after learning and practice supported participants to understand how their application of knowledge was impacting their ECEC practice. This could be identified in their examples as a growing practical wisdom in making decisions on how to apply other peoples' ideas to their own ECEC practice, leading to a growing sense of knowing how to work with young children and how to do things to benefit the children, families and team within their ECEC setting (Campbell-Barr, 2019a).

When thinking about these findings in relation to the issue there is strong evidence to confirm that the LINC programme has provided CPD that enables early childhood teachers' application of knowledge and that it is contributing to high quality ECEC provision. The findings also show that the LINC programme provides innovative CPD through its characteristics, form and content (Breen et al, 2018) (Jensen & Iannone, 2018).

5.3 Study limitations

There are a number of limitations to the study in terms of validity and the sampling. The validity of this study was reduced by not seeking feedback from the participants about the verbatim sections of the interview

being used within the findings (Miles & Huberman, 1994). Asking participants to verify my interpretation of their experiences would have added to the authenticity and validity of the findings, however time constraints impacted my ability to do this. Although I did have an opportunity to involve my supervisor in a partial check of codes and data, which contributes to reliability (See Table 2, p. 59) (Miles & Huberman, 1994).

This study's validity is also limited by the lack of triangulation of the other data (Miles & Huberman, 1994). However, the thick description within the findings that include plenty of the participants experiences verbatim in large sequences adds to the validity and authenticity (See Table 2, p. 59) (Miles & Huberman, 1994). This is a strength of the interview schedule and the interview process encouraging participants to feel at ease and to talk freely, and this adds to the rigour (Smith et al., 2009). The clearly mapped out sequence of the data collection and analysis supported confirmability and having credible links to literature to supports my interpretation of the data added validity (see Table 2, p. 59) (Miles & Huberman, 1994). Overall the findings show that the research design was a good fit for addressing the question and help provide confirmability (see Table 2, p. 59) (Miles & Huberman, 1994).

A final limitation to be considered is the self-selecting nature of the sample. The sampling process resulted in a sample of highly experienced early childhood teachers with the majority being in a management role,

which was slightly above the population percentages (see Figure 2, p. 48). The findings show these participants were motivated and, in a position, to bring about improvements and had well-formed knowledge, practice and values relating to high quality ECEC to begin with, which would not be fully representative of the whole population.

5.4 Recommendations for further research

This research has provided some interesting and valuable knowledge and that in itself adds to its validity (Miles & Huberman, 1994). It has impact and importance to the LINC programme and to providers of ECEC training within HE and FE sectors (Smith et al., 2009). The knowledge gained provides specific insight into the phenomenon and experiences of six participants, but also provides broader insights about supporting adult learners within the ECEC sector and about the goal of bringing high quality ECEC provision.

When thinking about this study there are gaps and potential for further research in the area of CPD through the LINC programme. A limitation of this study was the lack of corroboration of the findings, such as through triangulation, and the lack of generalisability due to the sample size and subjective nature of the study (Miles & Huberman, 1994). So, with this in mind a future research project could involve a phased mixed method approach that extends these findings. It could potentially start with these findings from the four themes, in relation to the blended learning

design, inclusion and child centred practice and use them to develop questions for a survey that involves a Likert rating scale that reaches a larger mix of the population (O'Leary, 2017). A survey has the potential to introduce more variables in relation to the participants such as age, gender, educational and work experience.

The project could be extended to include triangulation through analysis of the early childhood teachers' final portfolios based on *The Competency framework for inclusion in early childhood education and care* (Appendix i) to look for evidence of child-centred and inclusive practice and application of knowledge. A different method of sampling and participant recruitment could be used to broaden the sample to include early childhood teachers with varying experience, qualifications and job roles, as well as motivation to learn and improve their practice and satisfaction with the LINC programme.

5.5 Implications and Recommendations for CPD in ECEC

Although the findings and knowledge generated within this study are not generalisable to the wider population of the LINC programme or other CPD in ECEC, the findings in combination with literature are broad enough to be applicable and have transferability (Miles & Huberman, 1994). Three implications of these findings that should be considered in terms of the form, characteristics and content of CPD in ECEC, are provided along with recommendations.

An implication for providing CPD in ECEC in the future is that early childhood teachers should be supported to build their professional knowledge so that they can apply this knowledge to improve their ECEC practice. Recommendations for provider of CPD are to:

- Design CPD with less structured teacher led content and more opportunity to validate and build on the professional knowledge already there
- Provide opportunities to combine course content with early childhood teachers own experiences from practice
- Provide space and time for reflection and discourse within communities of practice both online and face to face
- Provide visible tutor support within online and blended learning programmes to facilitate the sharing of learning and practice. Include reflective prompts and pauses within lesson structure to support early childhood teachers to make sense of their learning.

Another implication for providing CPD in ECEC CPD is that early childhood teachers should be supported with their capacity to be agents of change within their own ECEC settings. Recommendations for providers of CPD are to:

- Embed a leadership element within CPD programmes to empower and guide learners on cascading or distributing the knowledge gained back in their ECEC settings

- Provide CPD opportunities that include two or more members of the ECEC setting to support improvements to ECEC practice through collaboration

or

- Provide whole setting CPD opportunities, that involve the team within an ECEC setting working as a community of practice to bring about change

One other implication for providing CPD in ECEC is that all forms of training should support early childhood teachers to develop high quality ECEC provision. Recommendations for providers of CPD are to:

- Embed child-centred practice, inclusive practice and the key national documents and frameworks
- Provide links between core features of high quality ECEC provision and early childhood teachers own ECEC practice
-

5.6 Conclusion

The aim of this research study was to *develop insights into how the LINC Programme supports early childhood teachers' application of knowledge in their ECEC practice*. This was addressed through three objectives and achieved through the process of completing semi structured interviews with six early childhood teachers. The interview process addressed the objectives to explore early childhood teachers

experiences of CPD through LINC Programme and to identify examples of them applying knowledge gained from the LINC Programme in their practice of working in an ECEC setting. The interview process also addressed the final objective to understand how the LINC programme blended learning design has provided opportunities and supported early childhood teachers in their application of knowledge. The data was analysed using thematic analysis and themes emerged that formed findings and discussion with relevant literature to support them.

The findings answered the research question *how does CPD through the LINC programme impact early childhood teachers' application of knowledge*. They were able to show that the LINC programme impacted early childhood teachers application of knowledge through Making theory real, Learning as a social process, Reinforcing child-centred values and strategies, and Extending inclusive values, attitudes and beliefs. The knowledge generated from these findings is valuable to the ECEC sector in terms of understanding the characteristics, content and form of CPD that supports high quality ECEC provision.

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Appendices

Appendix i: The Competency Framework for Inclusion in Early Childhood Care and Education

A. An Inclusive Culture

A	
1	All children are welcome.
2	All children are valued.
3	A focus is placed on promoting respectful interactions.
4	There are high expectations for all children.
5	Partnership with parents/carers is actively promoted.
6	Difference is acknowledged and celebrated.
7	The environment accommodates the needs of all children.
8	All policies are inclusive policies.

B. Inclusive Practice

B	
1	Transitioning to and from the setting is a positive experience for children, families and staff.
2	Support for children with additional needs is co-ordinated.
3	Staff members are encouraged to avail of continuing professional development opportunities.
4	All staff are aware of their roles and responsibilities in relation to the promotion of inclusive practice.
5	The expertise of staff is acknowledged and utilised.

C. An Inclusive Pedagogy

C	
1	Children's experiences are planned with the needs of all children in mind.
2	Strategies are in place to promote the participation of all children in learning.
3	A range of appropriate pedagogical approaches is used to support the holistic development of all children.
4	Play and playful learning are key features of practice for all children.
5	All children's communication and interaction are promoted.
6	All children's views are valued and responded to.
7	Early identification of children who require additional support is central to practice.
8	A variety of approaches to observation, recording and assessment is in place.
9	Early years educators plan, implement and evaluate children's learning in partnership with children, parents/carers and relevant others.
10	Positive relationships are understood and nurtured.
11	Children's specific assessed needs are understood as 'signposts' that support children's learning and development.
12	External assistance is elicited where required to support the setting in meeting children's additional needs.

LINC Consortium. (2019). *Interim Evaluation of the Leadership for INCLUSION in the early years (LINC) Programme*. Retrieved 06 30, 2019, from <https://documentcloud.adobe.com/link/track?uri=urn:aaid:scds:US:d8c95d7d-2d75-40a8-9f65-b6582908c08d>

Appendix ii : Interview Schedule:

Introduction:

Before the interview starts, verbally explain and read through the consent form

- Thank the participant for participating in the study
- Explain the goals of the study
- Explain the goals of the interview and the process
- Emphasise that the interview focus is on their experiences and opinions, and there will be no wrong or right answers/ responses
- Ask permission to record, and explain all data will be treated confidentially
- Emphasis that the participant has the right to pause the interview or to withdraw at any time
- Ask participant to sign the consent form

Demographic questions:

1. What is your year of birth?
2. What year did you graduate from the Linc Programme?
3. What further education or higher education programmes have you completed to date?
4. What experience of blended learning or online/ distance learning did you have before enrolling with the Linc programme?
5. How much experience do you have of working in the ECEC sector?
6. What is your current job role in an ECEC setting?

Open-ended questions:

1. Can you tell me why you decided to do the Linc programme?
Prompt: -what did you think you would get out of it?

2. What were the different ways that learning happened on the Linc programme?
Prompt:
 - i. -what do you remember about the (f2f/online lessons/forum posts/ online tutorials/ mentoring visit)?
 - ii. -Can you tell me more about that...
 - iii. -How did this support your understanding/add to your knowledge/ influence your own practice?

3. Can you tell me about any changes you made to your practice while you were a student on the Linc programme?
Prompt: - Did these changes come from a particular part of the Linc programme?

- i. -reflection during - online lessons/ forum posts/ f2f groupwork/ mentoring visit
- ii. -other students sharing practice - f2f sessions/forum posts/online tutorials/tutor sharing students' ideas during mentoring visit
- iii. -new knowledge -online lessons/ f2f sessions/mentoring visit
- iv. -Direct support from tutor- mentoring visit/ identifying own practice and relating to inclusive practice using the reflections on inclusion document

4. How would you describe the place the Linc Programme has in your practice now?

Prompts:

- i. -have you taken on the role of INCO (inclusion co-Ordinator)
- ii. -do you actively promote inclusion to parents and staff-
- iii. -have you applied for AIM supports

5. Can you tell me about any recent experiences in your practice that relates back to completing the Linc Programme?

Prompts:

- i. - did your understanding come from: the lesson content/ students sharing/ tutor sharing
- ii. -How did you feel when you were able to put this knowledge/ understanding/ insight to good use when working with young children
- iii. -Did it benefit you, the children/ parents/ setting
- iv. Did it create any challenges for you and your setting?

6. Can you tell me about any moments from the Linc programme that have brought about a change to your practice?

Prompts:

- i. Changes to leadership/curriculum approach/ practice in the room/ play experiences/ supporting additional needs/partnership/ sense of identity as a professional/ learner?
- ii. -what did you bring back to your setting from Linc?
- iii. -did the changes come from a particular part of Linc?
- iv. do you still use it/do that today?

7. Can you tell me about a key moment in your practice that came as a direct result of participating the Linc Programme?

Prompts- think about changes to:

- i. -the experiences you provide for the children you work with
- ii. -your curriculum approach
- iii. -your pedagogical approach
- iv. Supporting childrens additional needs
- v. Supporting childrens strengths, interests and needs
- vi. -collaborating with parents
- vii. -working as a team

8. How do you think your practice would be if you hadn't done the Linc Programme?

9. Have you changed your approach to working with young children in an ECEC setting since completing the Linc Programme?

Prompts- think about changes to:

- a. -the experiences you provide for the children you work with
- b. -your curriculum approach
- c. -your pedagogical approach
- d. Supporting childrens additional needs
- e. Supporting childrens strengths, interests and needs
- f. -collaborating with parents
- g. -working as a team

10. Has completing the Linc Programme prompted you to do anything further in the area of ECEC?

Prompts: In the areas of:

- i. -Practice –for example signing up for Siolta QAP or Better Start Mentoring
- ii. -Training- for example signing up for cpd such as Lamh/ sensory processing/ AsIAm training
- iii. -Qualification- for example going onto to further study at level 7,8,9, or 10.

Ending questions:

- 1. Do you have any other related comments you would like to add before we end the interview?

Appendix iii: Recruitment Information

Recruitment information

Hi there,
Have you completed the Linc programme?
Are you interested in taking part in a research study?
As part of my master's research I am looking for some early childhood teachers who completed the Linc programme in either 2017 or 2018 to share their experiences with me.
The interview can take place at a date, time and location to suit you, with your identity remaining anonymous throughout the research. For more detailed information please register your interest with me through direct message on Facebook before the March 2nd.
Thanks in advance
Anna Barr



The screenshot shows a Facebook notification from a group named "Montessori & Early Childhood Professionals Ireland ©". The notification is from "Anna Bridges Barr" and is dated "February 20 at 7:17 PM". The text of the notification is identical to the text in the previous block, asking if the recipient has completed the Linc programme and is interested in a research study. The notification also includes a small profile picture of Anna Bridges Barr and a dropdown arrow in the top right corner.

Montessori & Early Childhood Professionals Ireland ©
Closed group
About
Discussion
Announcements
Members
Events
Videos
Photos

FROM NOTIFICATIONS

 **Anna Bridges Barr**
February 20 at 7:17 PM

Hi there,
Have you completed the Linc programme?
Are you interested in taking part in a research study?
As part of my Master's research, I am looking for some early childhood teachers who completed the Linc programme in either 2017 or 2018 to share their experiences with me.
The interview can take place at a date, time and location to suit you, with your identity remaining anonymous throughout the research. If you're interested please let me know through direct message on Facebook before the March 4th.
Thanks in advance
Anna Barr

Appendix iv: Participant Information Form

Participant information form

[date]

Dear [name]

Thank you for registering your interest, I have enclosed details of the study to support you with making your decision to participate.

I am currently completing a Masters in Learning & Teaching with the National College of Ireland (NCI), Dublin, and also a tutor on the LINC Programme. I would appreciate if you would consider participating in my research project:

'An exploration of early childhood teachers' experiences of engaging in blended learning CPD through the LINC Programme as a way of understanding how their application of knowledge has been supported'.

The aim of this study is to explore early childhood teachers' experiences of completing the LINC Programme as a way to find out how it has supported their application of knowledge.

The research will take the form of a semi-structured interview which will give you an opportunity to share your experiences of completing the LINC programme. The interview will be held at a date, time, and location convenient for you. It will last for approximately 90 minutes, and you will have the freedom to take a break or end the interview at any stage. There are no anticipated risks involved in participating in this study. Participation is voluntary and you may choose to withdraw from the study at any time, should you wish, without consequence.

Throughout the study your identity will remain anonymous: personal information, names and workplaces will not be used in the research. An audio recording of the interview will be made, and all information discussed in the interview will be treated with confidentiality. All information and data relating to the study will be stored securely in either a locked cabinet or on an encrypted password protected device and will then be securely discarded 5 years after completion of the research, in accordance with NCI policy. The findings will be shared with National college of Ireland (NCI) for the purpose of grading, and these findings can be shared with you also.

If you have any questions, you may contact me at email: X18113273@student.ncirl.ie

Thank you for taking the time to consider being involved in this study and I look forward to hearing from you in due course.

Kind regards

Anna Barr

Appendix v: Participant Consent Form

Participant Consent Form

Researcher: Anna Barr

College/degree: National College of Ireland (NCI) / Masters in Learning and Teaching

Title of Study: An exploration of early childhood teachers' experiences of engaging in blended learning CPD through the LINC Programme as a way of understanding how their application of knowledge has been supported.

Purpose of study: The aim of this study is to explore early childhood teachers' experiences of completing the LINC Programme to find out how it has supported their application of knowledge.

Study procedures: The research will take the form of a semi-structured interview which will give you an opportunity to share your experiences of completing the LINC programme. It will last for up to 90 minutes, and you will have the freedom to take a break or end the interview at any stage. An audio recording will be made of the interview.

Confidentiality: Throughout the study your identity will remain anonymous: personal information, names and workplaces will not be used in the research. All information discussed in the interview will be treated with confidentiality. All information and data gathered, including the audio recording will be used only for the purpose of this study, and will be stored securely in either a locked cabinet or on an encrypted password protected device, and will then be securely discarded within 5 years of the completion of the research, in accordance with NCI policy.

Anticipated risks: There are no anticipated risks involved in participating in this study.

Right to withdraw: Participation is voluntary, and you may choose to withdraw from the study at any time, should you wish, without consequence.

Researchers contact details:

Anna Barr available at: X18113273@student.ncirl.ie

Declaration:

- I have read the information sheet on the nature of this study
- I understand what is involved in this study
- I have had an opportunity to ask questions about this study
- My questions about this study have been satisfactorily answered
- I agree to an audio recording of the interview being made
- I voluntarily give my consent to participate in this study
- I understand I am free to withdraw from this study at any time

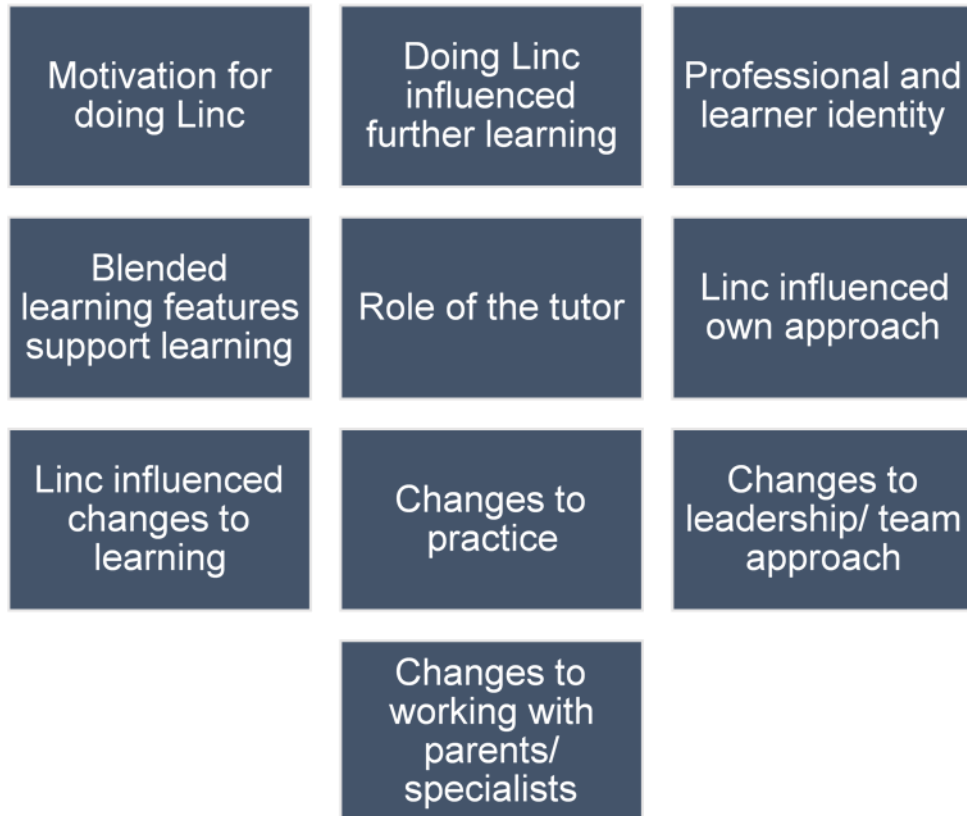
Participant name: _____

Participant signature: _____ **Date:** _____

Researcher name: _____

Researcher signature: _____ **Date:** _____

Appendix vi: Code Segments



Code segments based on a mix of what I expected to see such as Motivation for doing LINC, and Blended learning features support learning, as well as some that surprised me such as Professional and learner identity, and LINC influenced changes to learning

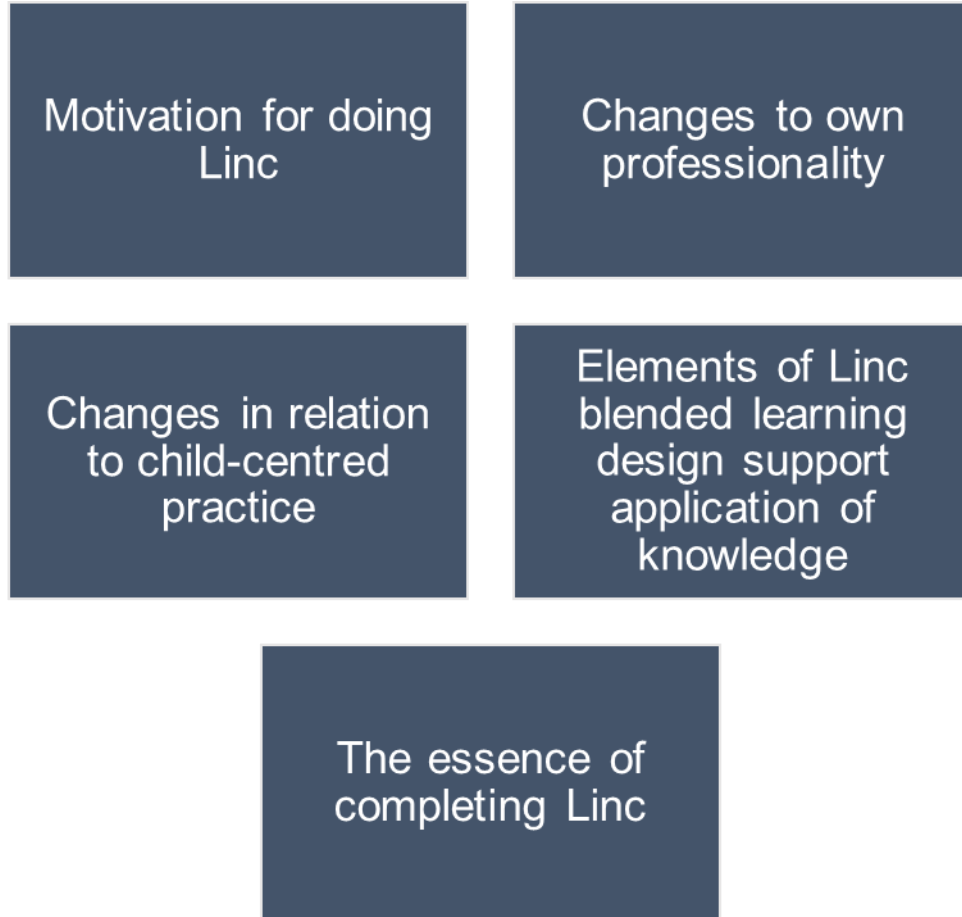
Appendix vii: Example of Distinctive Responses Stored with Code Segments

●	002 interview e...	changes to lea...	
●	changes to lea...	he actual worki...	
●	changes to lea...	I hate staff mee...	
●	002 interview e...	Linc influenced ...	
●	Linc influenced ...	I'd say it was m...	
●	Linc influenced ...	it was CPD you ...	
●	Linc influenced ...	it wouldn't be a...	
●	Linc influenced ...	with the childre...	
●	002 interview e...	doing Linc influ...	
●	doing Linc influ...	The Saturday cl...	
●	doing Linc influ...	that's why I cho...	
●	doing Linc influ...	Now what I've ...	
●	doing Linc influ...	it's great that I ...	
●	002 interview e...	blended learnin...	
●	blended learnin...	I'm more of a h...	
●	blended learnin...	It is kind of a sl...	
●	blended learnin...	I just thought it ...	
●	

Appendix viii: Example of Participants Distinctive Responses with Paraphrased Meaning

Participant distinctive responses	Codes	Paraphrased text
<p>"I really enjoyed the face to face because as I say I enjoy that...I contributed greatly...I know that I contributed in a positive way too to the...face to face, but I felt a lot of face to face was people who were...a bit anxious and kind of 'do I do this', what, 'how do we do this' 'when does that have to be in"</p> <p>"...but I do feel...that there was an element of those certain people that really were able to share their experiences in a practical way you know give examples..."</p> <p>"From the face to face days...the questions I asked were very pertinent...they could open up debates"</p> <p>"...on the Linc Saturdays because there was a diverse...experience and everything...I actually felt...I can add to this."</p>	<p>blended learning features supporting learning</p>	<p>P03 explained how during the face to face sessions she would purposely plan and ask questions that would open up debate. P03 details the value of bringing her experience to the face to face sessions and how it added to the knowledge, experience and ideas during; especially in terms of her own learner identity moving from feeling like a child in a classroom during her degree to believing she could now lead/ assist with the session.</p>
<p>"It's probably (the learning) when you had to comment and read somebody else's comment on it, and face to face obviously you always get a lot of that as well because it seemed to get an awful lot more when there's a group conversation going on like, that somebody would share...it just kind of sparks ideas in your head and if somebody was discussing something that they did that worked, you'd be like oh right we could try that...and bring that into our own practice."</p>	<p>blended learning features supporting learning</p>	<p>P04 acknowledged that the areas of the Linc programme that benefited and meant most to her involved the sharing of ideas with other practitioners and bringing ideas back to practice that happened in both through commenting and reading comments in the forum posts and group conversation in the face to face sessions.</p>
<p>"I think (my tutor) was really good at allowing that (time for people to talk) to happen and using the group and the experience. The experience that's in those groups is just huge. If you were to add the years that people had put in, it would be massive."</p>	<p>blended learning features supporting learning</p>	<p>P06 highlights the value of the role of tutor in facilitating time to talk and utilising the ECEC experience within the group.</p>

Appendix ix: Emergent Themes



Appendix x: Emergent Theme: The Essence of Completing

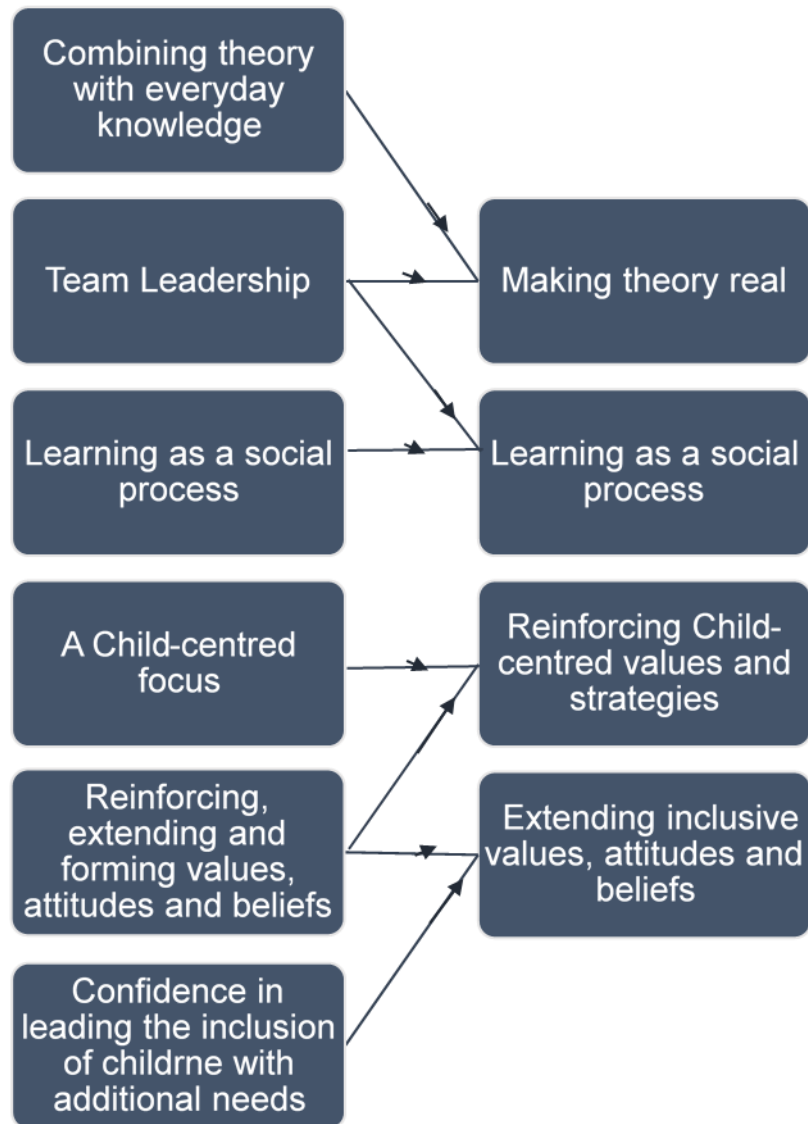
LINC

Participants distinctive responses	Emergent theme: The Essence of completing LINC
Linc just kind of reaffirmed what I was doing was right.'	P01 emphasises that completing Linc reinforced and confirmed her own values, beliefs and attitudes along with providing some new knowledge in places.
'it was CPD you know, and it sort of refreshed things that were in my mind and reawakened values that I would have had that probably just went dormant for a while...'	P02 could see her own philosophy within content of the Linc programme which revived her motivation in her own values in relation to inclusion, diversity and child-centred practice:
I was very proud to be able to do that (share examples)...that's why I took a lot of time and care over the discussion forums because I knew other people were reading them you know...So it wasn't just lash it down, the 200 words and click send...I probably in a way look back and think actually I helped others in my own way in that course as well'.	P03 emphasises that the sharing of learning and practice were at the heart of her experience of completing the Linc programme, particularly her own role in passing on her wealth of experience to other learners.
it just kind of sparks ideas in your head and if somebody was discussing something that they did that worked, you'd be like oh right we could try that...and bring that into our own practice.'	for P04 The sharing of ideas appeared to be most significant in the journey of completing Linc.
... I would have been seeing inclusive maybe more of dealing with people from different races, different cultures, different background having come from Africa and having different backgrounds. So, I feel very strongly about that, and...I do think Linc really opened my eyes to the inclusion being much more than culture...	P05 explains that before completing Linc she saw inclusion in terms of a cultural (race, language, background) context, mostly relating to her own context of living and working in Zimbabwe, and that through her experience of completing Linc her eyes have been opened to inclusion being so much more than that.
And I think it's one of the things when you manage for a long time you become that person to a lot of people. It's not just about; we take your kids and we provide childcare, you become a counsellor... you sort things out for people, you do a lot for people. And so really doing the Linc was a huge add on to that work, and really gave theory and purpose behind why you support parents on that journey that they have if there's difficulties...particularly with children with additional needs.	P06 sums up the essence of what she gained from completing the Linc programme, explain that it was a huge add on to her long term experience as a manger; it gave theory and purpose behind why she support parents on their journey, particularly when their children have additional needs.

Appendix xi: Clusters of Meaning and Provisional Themes

Team leadership <ul style="list-style-type: none">• Changing the mindset of the team• Changing own approach to the team	Confidence in leading the inclusion of children with additional needs <ul style="list-style-type: none">• Confidence with terminology• Confidence with supporting disability• Confidence with the Aim application process
A Child-centred focus <ul style="list-style-type: none">• Involving in decision making/ listening to children• Encouraging questioning• Talking to children• Approaches to documenting learning• Child-centred practice	Combining theory with everyday knowledge <ul style="list-style-type: none">• Knowing Aistear and Siolta• Making child development theory real• The online lesson format
Learning as a social process <ul style="list-style-type: none">• Sharing learning and practice• comradeship	Reinforcing, extending and forming values, attitudes and beliefs <ul style="list-style-type: none">• Reinforcing values, attitudes and beliefs• Extending and forming values, attitudes and beliefs

Appendix xii: Reworking Themes to Achieve Thick Description



- *Team Leadership* was divided, and parts were grouped with *Combining theory with everyday practice* to form a new theme *Making theory real*.
- Aspects of *Team leadership* were also combined with *Learning as a social process*.
- The 'reinforcing' elements of *Reinforcing, extending and forming values, attitudes and beliefs* were combined with *A child-centred focus* to form a new theme *Reinforcing child-centred values and strategies*.
- While the extending and forming parts of that theme were combined with the *Confidence in leading the inclusion of children with additional needs* to form a new theme *Extending inclusive values, attitudes and beliefs*.