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Developing Effective Mentoring Relationships for Early Childhood Education Teachers in Kupang, Indonesia: A Bioecological Perspective

A thesis

submitted in fulfilment

of the requirements for the degree of

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at

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by

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ABSTRACT

Grounded in Bronfenbrenner's evolving ecological and bioecological theory, this doctoral study examines how mentoring relationships shape the professional learning of early childhood education (ECE) teachers in a decentralised, resource-constrained context in Kupang District, eastern Indonesia. While early ecological formulations (Phase I) emphasised nested environmental systems, and later refinements (Phase II) foregrounded reciprocal interaction, Bronfenbrenner's (2005) mature bioecological model (Phase III) positioned proximal processes as the primary mechanisms of human development operating across the Process–Person–Context–Time (PPCT) framework. Drawing on this theoretical progression, the study conceptualises mentoring not as a discrete intervention but as a sustained developmental process embedded within multilevel systems.

Adopting a constructivist-interpretive paradigm, the research employed a qualitative instrumental case study design. Data were generated through online surveys, semi-structured interviews, and document analysis involving teachers, mentors, district officials, national policymakers, and development partners engaged in the Holistic-Integrative Early Childhood Development (HI-ECD) programme. Guided by the PPCT model, analysis explored how mentoring functioned as a proximal process shaped by individual dispositions, relational dynamics, institutional structures, cultural norms, and shifting policy conditions over time.

The findings demonstrate that mentoring was most effective when characterised by sustained, reciprocal dialogue, modelling of classroom practices, and reflective feedback grounded in trust and mutual commitment. Teachers' professional confidence, pedagogical decision-making, and identity formation were strengthened when mentoring relationships were consistent and relationally secure. However, mentoring outcomes were not determined solely by interpersonal quality. Exosystem and macrosystem influences, including leadership capacity, decentralised governance arrangements, donor transitions, cultural expectations of hierarchy, and fluctuating funding priorities, significantly shaped the continuity and sustainability of mentoring. Over time, mentoring contributed to gradual shifts from teacher-centred to child-centred pedagogy, yet these transformations remained vulnerable to systemic disruption.

The study advances three key contributions. First, it reconceptualises mentoring as a bioecological developmental process, demonstrating how professional learning emerges from sustained proximal interactions embedded within layered policy and cultural ecologies. Second, it refines the application of Bronfenbrenner's Phase III bioecological model in educational research by illustrating how mentoring operates simultaneously across micro-, meso-, exo-, macro-, and chronosystem dimensions. Third, it extends the scholarship on mentoring in Global South contexts by analysing how donor-supported initiatives intersect with decentralised governance structures to influence sustainability and teacher professional identity.

The thesis concludes that strengthening ECE mentoring in Indonesia requires systemic coherence across relational, institutional, and policy dimensions. Sustainable mentoring depends not only on high-quality interpersonal processes but also on alignment across systems and continuity over time. These findings offer implications for policymakers, development partners, and educational leaders seeking to embed context-responsive mentoring within decentralised education systems and to strengthen the professionalisation of the early childhood workforce.

DEDICATION

This thesis is dedicated to my beloved father and younger sister, whom I lost during my PhD journey.

In loving memory of

My Father, Bapak Haji **Panut Raharjo Mulyo Saputro**
4th June, 1952 – 5th October 2024

and

My Sister, **Tri Wahyuningrum, S.Pd**
19th March, 1982 - 25th May 2026

*You may no longer be here with us, but your love and memories remain in our hearts.
We miss you both every single day, and we always will.*

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I dedicate this thesis to my beloved parents, my late father, H. Panut Raharjo Mulyo Saputro, and to my mother, Hj. Siti Romlah Nur Hidayati, for their endless prayers and hopes since my childhood: that one of their children would earn a doctoral degree, and that someone from our village could pursue a higher education overseas. All that I have achieved in my life is a result of your prayers. I know your love has no bounds, and neither does mine for both of you.

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LIST OF ABBREVIATIONS

ACDP	Analytical and Capacity Development Partnership
BAPPENAS	Indonesian Ministry of National Development Planning (Indonesia)
BPS	Statistics Indonesia (BPS)
CCC	Child-Centred Curriculum
CLCC	Creating Learning Communities for Children
CPD	Continuing Professional Development
DAPODIK	National Education Data System
DEO	District Education Office
DFAT	Australian Department of Foreign Affairs and Trade
ECD	Early Childhood Development
ECDC	Early Childhood Development Centre
ECE	Early Childhood Education
ECED	Early Childhood Education and Development
ERC	Education Reformation Committee
GDP	Gross Domestic Product
GNI	Gross National Income
GOI	Government of the Republic of Indonesia
HI-ECD	Holistic Integrative – Early Childhood Development Programme
LCE	Learner-Centred Education
MELE	Measure of Early Learning Environment
MELQO	Measurement of Early Learning Quality and Outcomes
MFAT	New Zealand Ministry of Foreign Affairs and Trade
MODEL	Measure of Development and Early Learning
MoEC	Ministry of Education and Culture
MoECRT	Ministry of Education, Culture, Research and Technology
MoRA	Ministry of Religious Affairs
NAEYC	National Association for the Education of Young Children
NCF	Nurturing Care Framework
OECD	Organisation for Economic Co-operation and Development
NGO	Non-Government Organisation
NTB	Nusa Tenggara Barat/West Nusa Tenggara Province
NTT	Nusa Tenggara Timur/East Nusa Tenggara Province
NZAID	New Zealand Agency for International Development
PD	Professional Development
PDSP-MoEC	Education Data and Statistics Centre (Unde MoEC)
PLC	Professional Learning Community
PPCT	Process-Person-Context-Time
PRT	Provisionally Registered Teachers
PTA	Parent-Teachers Association
SDG	Sustainable Development Goals
TCPD	Teachers' Continuing Professional Development
TK	Taman Kanan-Kanak (Kindergarten)
ToT	Training of Trainers
UNDANA	Nusa Cendana University
UNESCO	United Nations Educational, Scientific and Cultural Organisation

UNICEF	United Nations Children's Fund
USA	United States of America
USAID	United States Agency for International Development
WHO	World Health Organisation
YAO	Yayasan Alfa Omega (a local NGO in Kupang District)

CHAPTER I: INTRODUCTION

Overview

Mentoring has long been recognised as one of the most powerful, though often underutilised, approaches to teacher professional development (Hobson et al., 2009; Ingersoll & Strong, 2011). Mentoring provides a bridge between theory and practice, linking the aspirations of educational reform with the day-to-day realities of classroom life. In early childhood education (ECE), where teaching is deeply relational and context-dependent (Nolan & Raban, 2015), mentoring can transform how teachers understand children, learning, and their own professional identities. Rather than functioning merely as a transfer of knowledge from expert to novice, mentoring is increasingly conceptualised as a reciprocal and evolving partnership that nurtures reflection, confidence, and pedagogical innovation (Kram, 1983; Wang & Odell, 2002).

In Indonesia, where many ECE teachers work in community-based, under-resourced settings, and qualifications and access to ongoing professional development remain uneven, mentoring assumes heightened importance (OECD, 2015; World Bank, 2020). Mentoring offers a pathway for more equitable access to professional learning, particularly for teachers who may lack formal training opportunities. Through mentoring, teachers can access practical guidance and professional support, enabling them to develop more engaging, inclusive, and responsive pedagogical practices aligned with national early childhood priorities.

This thesis explores how mentoring has been implemented, experienced, and sustained in Kupang District, Nusa Tenggara Timur (NTT), one of Indonesia's most socioeconomically challenged provinces. The study situates mentoring as a dynamic and relational process that shapes teachers' professional learning and identity formation, while also intersecting with broader issues of educational equity, policy implementation, and community resilience.

The research context

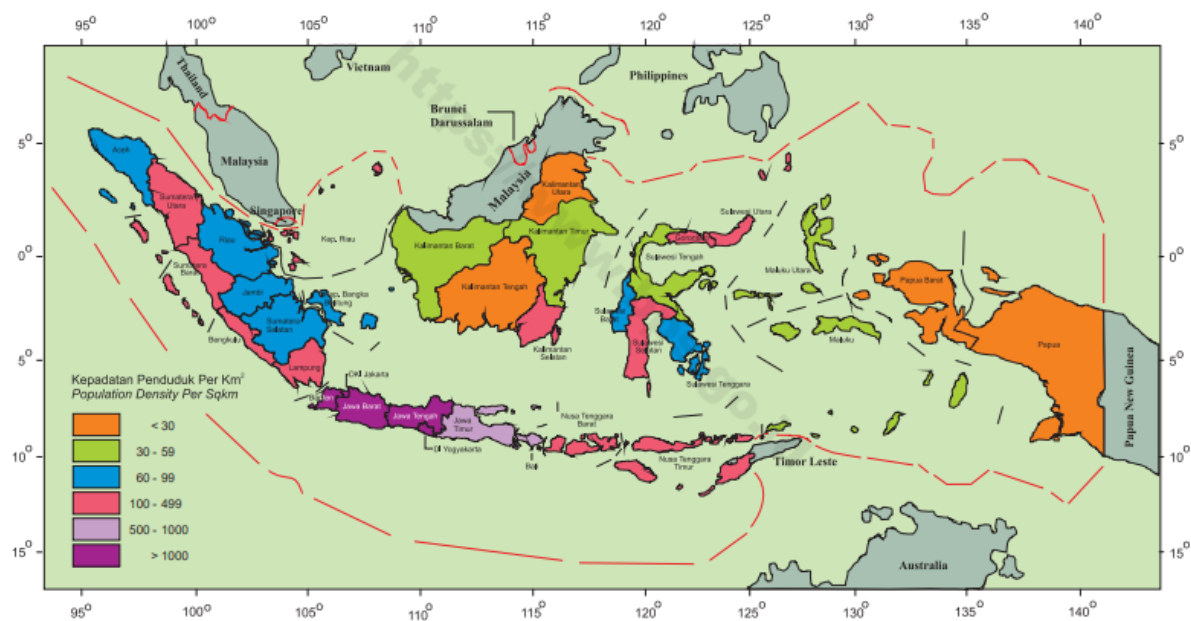
Indonesia: A brief overview

Indonesia is an archipelagic nation of over 17,000 islands, home to more than 265 million people (BPS, 2019). As illustrated in Figure 1, population distribution across the archipelago

is highly uneven. The western island, particularly Java and parts of Sumatra and Bali, exhibit very high population density, while many provinces in eastern Indonesia, including Nusa Tenggara Timur (NTT) and Papua, have significantly lower population densities. This demographic imbalance has important implications for infrastructure development, service provision, and access to education.

Figure 1

Geographic Situation and Population Density of Indonesia, 2022



Note. From Statistik Indonesia: Statistical yearbook of Indonesia (2022). From BPS-Statistics Indonesia.

(<https://www.bps.go.id/id/publication/2022/02/25/0a2afea4fab72a5d052cb315/statistik-indonesia-2022.html>). In the public domain

Indonesia shares maritime and land borders with Malaysia, Singapore, Vietnam, Brunei Darussalam, Timor-Leste, Thailand, the Philippines, Papua New Guinea, Palau, and Australia (Badan Pusat Statistik (BPS), 2022). The country is also reported to be one of the most ethnically diverse in the world, with more than 1,300 indigenous ethnic groups and approximately 750 local languages (PDSP-MoEC, 2019). While Bahasa Indonesia functions as the national language, daily language use varies widely across regions (BPS, 2019).

Despite rapid economic growth, substantial regional disparities persist, particularly between the more densely populated western regions and the less densely populated eastern provinces. Socio-economic inequality remains evident across islands, communities, and rural–urban divides. As of September 2019, the national poverty rate stood at 9.22%, equivalent to approximately 25 million people (BPS, 2019). These demographic and socio-economic disparities provide important context for understanding variations in access to early childhood education and professional development opportunities across the country

Indonesia has long been positioned within global development discourses as a ‘developing’ country, a classification widely used in international development literature to describe nations characterised by uneven economic growth, structural inequalities, and reliance on external support (Escobar, 2011; UNDP, 2010). This positioning has shaped patterns of external intervention and international support since the post-independence period. From the 1960s onwards, Western governments, multilateral agencies, and international development organisations played an influential role in supporting Indonesia’s economic, social, and education sectors through loans, technical assistance, and programme-based interventions. In education, these engagements often framed quality improvement and capacity building as responses to perceived deficits in national systems, reinforcing both opportunities for reform and enduring dependencies on external expertise. This historical context is important for understanding how contemporary education initiatives, including early childhood education reforms, continue to be shaped by global policy agendas, donor priorities, and international development partnerships.

Introduction to ECE in Indonesia

Indonesia declared its independence on 17 August 1945 and achieved full sovereignty following the formal transfer of power from the Netherlands in 1949. During the Dutch colonial period (1630 – 1942), the foundations of Indonesia’s formal education system were established, resembling today’s structure of primary, secondary, and tertiary education (Adiputri, 2014; Formen, 2018). Formen (2018) notes that early childhood education was introduced through the Froebelian Kindergarten model, which was brought to the archipelago before the formation of a unified Indonesian nation (Dorussen et al., 2005).

The Froebelian approach, developed by Friedrich Fröbel, emphasises the holistic development of children through structured play and guided activities. The model promotes children's active participation in learning, recognising them as naturally curious and capable learners. Froebel designed specific learning materials known as 'gifts' and 'occupations', which help children explore shapes, colours, sizes, and basic concepts through activities such as counting, comparing, and constructing. These materials and activities were intended to support children's physical, cognitive, and creative development while fostering independence and observation skills (Aisyah et al., 2023).

Indonesia has approximately 33,491,100 children aged 0 - 6 years, with an enrolment rate for early childhood education (ECE) of around 35.1% (Direktorat Jenderal PAUD dan Dikmas, 2020). Formal compulsory basic education in Indonesia begins at age 7, as stipulated in the national Education System Law (Law No. 20/2003), making ECE a district pre-basic education phase rather than part of compulsory schooling. There are approximately 202,991 ECE centres in Indonesia, with only 2% owned by the government and 98% owned by communities, such as religious-based organisations, private sectors, or village-based ECE centres (Kemdikbud, 2020). These figures highlight the complexity of ECE in Indonesia, including both formal and non-formal preschool education settings, with non-formal centres dominating the national landscape.

There are five main types of ECE services in Indonesia based on National Law Number 20/2003 of the National Education System, which are: *Taman Kanak-Kanak* (Kindergarten), *Kelompok Bermain* (Playgroup), *Taman Penitipan Anak* (Daycare), *Satuan PAUD Sejenis* (other types of services), and *PAUD Berbasis Keluarga* (parenting education). The formal service includes kindergarten, while the non-formal services include playgroups, daycare, other services, and parenting education. Each service caters to children of different age groups, as shown in Table 1.

Table 1*Early Childhood Education Services and Their Age Groups*

Type of services	Age group
Kindergarten	4 – 6 years
Playgroup	2 – 4 years (or six years)
Daycare	3 months – 6 years
Other types of services (for example, religious-based ECE services, integrated health post, Parenting education)	0 – 6 years

Note. The author's interpretation of the Education Ministerial Regulation Number 137, year 2014.

This categorisation illustrates the differentiated yet complementary roles of ECE services in Indonesia, ensuring that children from infancy to the pre-primary years are accommodated within a structured system. It also reflects the government's recognition of diverse care and education needs, particularly the integration of family-based and community-based provisions within the broader early childhood education framework.

ECE workforce in Indonesia

Data from the Ministry of Education, Culture, Research, and Technology (MoECRT) indicates that Indonesia has approximately 483,833 ECE teachers, of whom 51.75% hold an undergraduate degree (Direktorat Jenderal PAUD dan Dikmas, 2020). According to the Education Reformation Committee document, a teacher with a minimum undergraduate degree is considered qualified. At the same time, professionalism is confirmed by possessing a certificate of professional training (Government of the Republic of Indonesia, 2003). However, many non-formal ECE teachers have not graduated from secondary education (World Bank, 2012). This adds another layer of complexity to ECE in Indonesia, particularly regarding teacher and educational personnel regulations.

The ECE workforce in Indonesia represents a diverse and evolving professional community shaped by historical, social, and policy contexts. As Gómez et al. (2019) suggest, the early childhood workforce internationally is a multi-layered system influenced by political,

institutional, and socio-cultural environments. This perspective is especially relevant in Indonesia, where macro-level policy ambitions, meso-level governance structures, and micro-level teaching realities intersect. At the national level, ECE policy is governed by the MoECRT and the Ministry of Home Affairs. Teachers and caregivers work across formal and nonformal settings, serving children from birth to six years old. Despite the rapid expansion of ECE access, workforce disparities persist. Teachers in formal kindergartens (TK) are regulated under the Teacher and Lecturer Law (Law No. 14/2005), while the majority of educators in nonformal settings are classified as community volunteers or part-time caregivers. This duality creates inequities in qualifications, salaries, and professional status.

Law No. 14/2005 on Teachers and Lecturers remains the foundational legal framework defining teacher professionalism and the four core competency domains in Indonesia, pedagogic, professional, personal, and social, with subsequent regulations further elaborating and operationalising these standards. These competencies emphasise the importance of deep pedagogical understanding and creativity in designing meaningful, developmentally appropriate learning experiences. However, translating these formal standards into practice remains challenging. Many ECE teachers face financial barriers to pursuing formal qualifications, and opportunities for sustained professional development are limited (Qoyyimah, 2018). National data indicate that only 32.4% of ECE teachers hold a Bachelor's degree in ECE, 20.6% have degrees in other fields, and 47% have no formal qualifications (Kemdikbud, 2020). Such structural constraints have contributed to a persistent perception that ECE teachers are underqualified, undermining their professional status and societal recognition (Newberry & Marpinjun, 2018), and highlighting the gap between regulatory expectations and field realities

At the district and institutional levels, local governments (District Education Officers/*Dinas Pendidikan*) are primarily responsible for delivering ECE programmes, yet their supervisory and training capacity varies widely. Development partners and NGOs often fill these gaps by initiating ECE teacher training programmes and mentoring systems, such as the Kupang ECE Teacher Mentoring Programme. While these collaborations expand opportunities for teacher learning, their sustainability depends on local ownership and long-term resource allocation.

At the community and classroom levels, teachers navigate complex realities shaped by parental expectations, cultural norms, and resource limitations. Many teachers work with

multi-age groups, limited teaching materials, and diverse linguistic contexts. Professional learning often occurs informally through peer exchanges, local mentoring, or short-term workshops. Overall, Indonesia's ECE workforce embodies both resilience and vulnerability. Teachers display remarkable dedication to children's well-being despite systemic constraints.

International influences on ECE in Indonesia

International development agencies, including multilateral organisations, bilateral donors, and international NGOs, are not neutral actors but powerful institutions that shape national policy agendas. International agencies have long played a central role in shaping education reform in postcolonial contexts by influencing policy priorities, knowledge production, and implementation practices (Escobar, 2011). In Indonesia, the evolution of early childhood education (ECE) has been significantly influenced by these agencies since the post-independence period, as global development frameworks and donor priorities intersected with national reform efforts.

UNICEF has operated in Indonesia since 1948 and has supported child health, education, and, from the 1990s, holistic early childhood development initiatives, as documented in national ECED strategy studies and UNICEF's historical records (Education Sector Analytical and Capacity Development Partnership (ACDP), 2013; UNESCO, 2014). The World Bank, which has been involved in Indonesia's development since the late 1960s, began large-scale early childhood engagement through the Indonesia Early Childhood Education and Development (ECED) Project, designed in the mid-2000s and implemented between 2006 and 2012 (Brinkman et al., 2017; World Bank, 2006, 2012).

MFAT New Zealand (via the New Zealand Aid Programme) has been active in Indonesia since the early 1960s, when formal diplomatic and development cooperation began. They have supported education cooperation primarily through scholarships, higher education partnerships, vocational and skills training, and people-to-people exchanges. In the basic education sector, New Zealand, through NZAID, also contributed to the UNESCO–UNICEF–Government of Indonesia Creating Learning Communities for Children (CLCC) programme in the early 2000s, which aimed to improve child-friendly, active learning practices in primary schools (UNESCO, 2004). Although early childhood education was not a core component of their bilateral portfolio in Indonesia, MFAT provided US\$2.8 million

between 2016 and 2020 to develop and test models for quality assurance and community-based ECD, targeting 100 early childhood centres in Kupang and reaching approximately 7,400 children aged 3–6 years (UNICEF, 2015).

Save the Children, present in Indonesia since 1976, has been identified in sector analyses and academic reviews as a major actor in community-based early childhood and parenting programmes since the early 2000s (Education Sector Analytical and Capacity Development Partnership (ACDP), 2013; Newberry, 2013). Plan International, which has worked in Indonesia since 1969 and formalised its national entity in 2017, has implemented early childhood programmes documented at least from the late 2000s to early 2010s, including those referenced in national ECD studies and in programme evaluations published in 2016 (Education Sector Analytical and Capacity Development Partnership (ACDP), 2013; Plan International, 2016).

The collective influence of these international development partners helped shift Indonesia's understanding of early childhood from a predominantly education-focused domain to a holistic early childhood *development* system requiring coordinated action across sectors. Their contributions emphasised that high-quality early childhood outcomes depend on integrated interventions that link ECE services with maternal and child health, nutrition support, responsive caregiving, child protection mechanisms, and family engagement.

The Holistic, Integrative Early Childhood Development (HI ECD) Framework

In 2013, the Government of Indonesia introduced the Holistic-Integrative Early Childhood Development (HI-ECD) implementation through Presidential Regulation Number 60. This landmark policy represented a paradigm shift from fragmented, sectoral service delivery to a comprehensive, rights-based approach to early childhood development. The regulation underscored the government's commitment to ensuring that every Indonesian child has access to five essential dimensions of well-being: education, health and nutrition, parenting, protection, and welfare (Government of the Republic of Indonesia, 2013).

This policy direction was also shaped by significant international imperatives that placed early childhood care and education at the centre of the global development agenda. The Sustainable Development Goal (SDG) 4.2 explicitly calls for universal access to quality early

childhood education and the promotion of optimal child development as part of the global commitment to equitable and inclusive education for all. Complementing this, the Nurturing Care Framework, introduced by WHO, UNICEF, and the World Bank (2018), urged countries, including Indonesia, to adopt an integrated approach linking education with health, nutrition, responsive caregiving, and child protection. Together, these frameworks provided the normative and strategic foundation for Indonesia's adoption of the HI-ECD approach, aligning national priorities with global commitments to invest in the early years as a cornerstone for human capital development.

International development partners, including UNICEF, the World Bank, and several international NGOs, played key roles in shaping the HI-ECD framework by providing technical inputs, field evidence, and global best practices. The resulting programme conceptualised early childhood development (ECD) not merely as a preparatory stage for schooling but as a comprehensive system of care that supports children's survival, growth, and learning through multisectoral collaboration. While the HI-ECD framework articulated an ambitious national vision for integrated early childhood development, its implementation has been uneven across Indonesia's diverse regions, especially under a highly decentralised system where local capacity varies significantly (King & Özler, 1998). These disparities meant that, despite strong national-level policy commitment, many districts struggled to translate the HI-ECD framework into coherent practice, especially in eastern Indonesia.

Given the Nurturing Care Framework's emphasis on early stimulation as a critical component of children's cognitive and socio-emotional development, strengthening local implementation capacity becomes essential. In this context, ECE teacher mentoring systems within the HI ECD programme are expected to reinforce Indonesia's efforts to operationalise holistic-integrative principles at the local level, particularly by supporting educators and frontline actors in delivering developmentally appropriate stimulation and responsive caregiving practices at the ECE centres and communities.

Nusa Tenggara Timur Province

Significant development disparities persist across Indonesia's regions, with eastern provinces consistently lagging behind national averages in key economic and social indicators. Provinces in eastern Indonesia, including Nusa Tenggara Timur (NTT), face persistent

structural constraints such as limited fiscal capacity, shortages of qualified personnel, and weak intersectoral coordination, which have hindered their ability to operationalise multisectoral early childhood services (OECD, 2016). These regional inequalities have contributed to uneven implementation of national early childhood policies, reinforcing gaps between policy ambition and local service delivery capacity.

Among the eastern provinces, Nusa Tenggara Timur (NTT) remains one of the least developed and continues to face enduring challenges in child well-being. The province records high rates of stunting, underweight, and wasting among children under five, reflecting chronic nutritional deprivation (see Table 2). Immunisation coverage and early childhood education (ECE) enrolment rates in NTT remain below national averages, exacerbating inequities in early learning opportunities and placing children at a disadvantage from the earliest stages of life, with long-term implications for health, learning, and socioeconomic outcomes (UNICEF, 2015).

Table 2
Comparison of the Health and Education Indicators (National and NTT)

Indicators	Indonesia – National (%)	NTT Province (%)
Prevalence of Stunting	37.2	51.7
Prevalence of Underweight	19.6	33.1
Prevalence of Wasting	12.1	15.4
Immunization coverage	61.1	59.7
Gross Enrolment Rate of ECE	63.01	47.85

Note. The table is adapted from the UNICEF (2015) Activity Design Document.

A joint report by the Ministry of National Development Planning (BAPPENAS) and UNICEF (2016) provided a detailed snapshot of NTT's progress towards the United Nations Sustainable Development Goals (SDGs) for children. Economically, NTT's Gross Domestic Product (GDP) per capita remains among the lowest in Indonesia (Aba et al., 2015). The

SDG performance scorecard placed NTT last among Indonesia's 34 provinces for key indicators such as childhood stunting, access to sanitation, and birth registration (BAPPENAS & UNICEF, 2016).

In response to these challenges, the ECE Directorate of the Ministry of Education and Culture (MoEC), the New Zealand Ministry of Foreign Affairs and Trade (MFAT), and UNICEF collaborated on a series of field missions in 2014 across six districts in NTT and neighbouring Nusa Tenggara Barat (NTB). These missions assessed regional readiness for an ECE improvement initiative focused on strengthening teacher capacity and service quality in eastern Indonesia (UNICEF, 2015). MFAT expressed a strong interest in supporting this initiative as part of its commitment to advancing human capital development. A consortium of international and national consultants, led by experts from Victoria University of Wellington and a senior advisor formerly affiliated with Save the Children, was tasked with designing the programme proposal.

Two districts in the NTT Province, Kupang and Sikka, were shortlisted as potential pilot sites. Kupang was ultimately chosen due to its lower health and education indicators compared to Sikka, as well as the demonstrated enthusiasm and planning capacity of the Kupang district government. While formal documentation of the selection process is limited, internal discussions between UNICEF and the national government confirmed that Kupang's combination of need and local commitment made it an ideal site for piloting a large-scale mentoring-based professional development model.

Within the Holistic Integrative ECD initiative in Indonesia (Government of the Republic of Indonesia, 2013) and in line with the Nurturing Care Framework (2018), the implementation of HI-ECD at the local level was intended to move beyond early learning stimulation alone. ECE centres adopting the HI-ECD approach were expected to coordinate across sectors to address children's broader developmental needs, linking education with health, nutrition, parenting support, and child protection. Thus, while the terms 'ECE' and 'ECE centres' in this thesis refer to early childhood education in general, 'ECD' and 'HI-ECD' denote the specific integrated programme implemented in Kupang District, supported by UNICEF Indonesia with funding support from the New Zealand Ministry of Foreign Affairs and Trade (MFAT). This MFAT-supported initiative created the policy and programmatic context within which my doctoral research is situated. As the programme was rolled out in Kupang

District, it offered a unique opportunity to examine how early childhood teachers engaged with new expectations for quality, mentoring, and holistic service delivery at the ECE centre level.

To inform programme design, a baseline study was conducted in early 2017 to assess teacher qualifications, pedagogical practices, and curriculum implementation across HI-ECD pilot centres in Kupang District (UNICEF, 2017). Table 3 summarises key findings from this baseline assessment.

Table 3
Teachers' Educational Background and National Curriculum Implementation

Baseline-Study Indicators	Percentage (%)
The teacher had a bachelor's degree	17
The teacher had a high school or equivalent education background	80
Teachers had diplomas I, II or III	3
Teachers with prior knowledge and ECE teaching skills	16
Teachers implemented the current national curriculum	36
Teachers used previous curricula or had no specific curriculum	64

According to the Teacher and Lecturer Law (Law No. 14/2005), an ECE teacher must hold a minimum undergraduate degree. However, as shown in the baseline results, only 17% of teachers in Kupang met this requirement, while 80% held only a high school qualification. Moreover, just 16% had prior ECE-specific knowledge or training. In terms of curriculum implementation, only 36% of teachers applied the 2013 National ECE Curriculum, whereas 64% relied on outdated curricula (2006 or 2010 versions) or had no structured curriculum at all.

Several factors constrained the effective use of the national curriculum. Teachers reported insufficient training in child development principles, limited access to learning materials, and perceptions that the national curriculum was overly complex or irrelevant to their teaching

contexts (UNICEF, 2017). These findings highlighted systemic barriers to achieving quality in early education, particularly in resource-limited regions like Kupang.

In summary, the introduction of the HI-ECD framework was a critical step in institutionalising a comprehensive, multisectoral framework for early childhood development in Indonesia. Yet, the baseline data from Kupang revealed deep-rooted challenges in teacher qualifications, pedagogical capacity, and curriculum implementation. Recognising these issues, UNICEF, in partnership with the ECE Directorate (MoEC) and MFAT, proposed establishing a teacher mentoring programme to enhance professional competence, promote effective curriculum use, and strengthen the overall quality of early learning environments. This mentoring initiative became a cornerstone strategy for operationalising the HI-ECD vision at the district level, demonstrating how sustained, collaborative professional learning can drive meaningful improvements in early childhood education.

The journey of the ECE teacher mentoring programme in the Kupang district

This section documents the trajectory of the ECE teacher mentoring programme, in which I was directly involved throughout its design and implementation processes. As such, the analysis presented here draws substantially on my professional experience as a programme practitioner, complemented by official programme documents, including the technical guidelines for the replication of the HI ECD programme (MYRIAD & UNICEF, 2020; UNICEF, 2020). The Kupang district mentoring programme was the first district-wide initiative of its kind in Indonesia, both in its dedicated focus on mentoring and in its comprehensive geographic coverage. The programme reached all sub-districts in Kupang, including those that were easily accessible, difficult to reach, and located on remote islands beyond the Timor mainland. This extensive reach distinguished it from many donor-supported education projects, which typically operate in limited and more accessible areas. The programme reflected a strong local government commitment to equity and inclusion in teacher development and was subsequently recognised by district and national authorities as a model that could be replicated in other districts in Nusa Tenggara Timur and across Indonesia. This section highlights the journey of this programme.

In mid-2017, the Kupang District Government, Nusa Cendana University (UNDANA), UNICEF, and the development partner Yayasan Alfa Omega (YAO) collaborated to recruit

mentors for the newly launched Early Childhood Education (ECE) teacher mentoring programme (funded by MFAT New Zealand). The initiative aimed to strengthen teachers' professional capacity across 24 sub-districts in Kupang. From approximately 150 applicants, 62 were shortlisted for face-to-face interviews, and 24 mentors were ultimately selected.

The mentors were chosen based on rigorous criteria: they were required to hold a bachelor's degree in education, preferably specialising in early childhood education; have at least one to two years of teaching experience, and demonstrate strong mobility and communication skills. In addition, they needed to be fluent in local languages (Atoin Meto or Dawan), own a motorbike and a valid driving license (Category C), and be proficient in using digital tools such as Microsoft Word and Excel. These criteria ensured that mentors could travel to remote areas and maintain regular engagement with the centres they supported.

Before beginning their field assignments, the mentors underwent a one-week Training-of-Trainers (ToT) in September 2017, facilitated by experts from Massey University and commissioned by MFAT New Zealand. The training introduced mentoring theories, interpersonal communication, observation techniques, and practical tools for providing constructive feedback. This was followed by a national ECE curriculum training organised by the ECE Trainers Association in December 2017, focusing on curriculum interpretation and lesson-planning skills.

By January 2018, the mentors began working in their assigned sub-districts. Each mentor supported four ECE centres weekly, visiting one centre per day from Monday to Thursday, and preparing monitoring and reflection reports on Fridays. Their responsibilities included observing classroom practices, providing targeted feedback, assisting with lesson plans, and helping teachers develop locally sourced learning materials. Once a month, mentors and lead teachers facilitated ECE teacher cluster meetings at the sub-district level, creating professional learning communities where teachers could share challenges and co-develop solutions. Mentors also supported parent–teacher forums, introducing parenting topics and promoting home-school collaboration.

To strengthen mentors' pedagogical and mentoring skills, a series of follow-up trainings was organised. In August 2018, mentors and lead teachers participated in a week-long on-the-job training at a National ECE model in West Java Province, where they observed best practices

in creating child-friendly learning environments. They learned how to arrange classrooms for active learning, diversify play-based materials, and establish reading corners to promote early literacy and numeracy.

Subsequently, in November 2018, mentors attended advanced mentoring training led by the University of Waikato, which introduced theoretical and practical aspects of mentoring. The training covered techniques for giving and receiving feedback, reflective dialogue, and documenting mentoring outcomes using structured instruments. Additional workshops in June and November 2019 continued to strengthen mentors' competencies through refresher sessions and peer-learning activities.

In 2018, UNICEF conducted a midline evaluation of the mentoring programme to assess interim progress. The findings indicated that sub-districts with consistent mentor assignments demonstrated greater gains than those experiencing frequent mentor turnover. Regular visits and sustained mentoring relationships were associated with more effective classroom transformation and stronger teacher motivation. Teacher cluster meetings facilitated by mentors also enabled collective problem-solving and the sharing of practical strategies (UNICEF, 2018).

In 2020, UNICEF conducted the end-line evaluation using the Measure of Early Learning Environments (MELE) instrument developed by UNESCO et al. (2017), comparing results with both the 2018 midline data and non-intervention centres. The findings demonstrated that centres participating in the mentoring programme showed significant improvements in early learning environments compared to non-mentored centres (MYRIAD & UNICEF, 2020). Beyond classroom-level changes, the evaluation also highlighted increased government engagement, enhanced parental and community involvement, and overall improvements in the quality of learning environments across pilot centres.

Before MFAT's funding was closed in March 2020, the Kupang District Government, UNICEF, and the ECE Directorate met to discuss sustainability strategies (Hatong & Jehola, 2020). Their agreed actions were integrated into the second semester of 2020 and included:

- Scaling-up nationally (2020–2024): The ECE Directorate planned to replicate Kupang’s mentoring model in 250 districts, training approximately 2,500 facilitators to mentor 2,000 ECE centres.
- District-level continuation: The Kupang District Government committed to retaining 30 mentors across its 24 sub-districts using the district’s local budget allocation.
- Knowledge dissemination: UNICEF produced and distributed key resources, mentoring modules, policy briefs, and an exit strategy document to guide replication across NTT Province. Best practices were shared through printed materials, webinars, and virtual learning sessions with over 600 ECE practitioners nationwide (Liza, 2020; Oebaidillah, 2020).

The continuation and national scaling-up of the Kupang mentoring initiative mark an important milestone for Indonesia’s teacher professional development system. The programme’s success illustrates how context-responsive mentoring, grounded in collaboration, consistency, and local leadership, can drive systemic improvement in early learning quality.

Nevertheless, while numerous documents (guidelines, modules, and policy briefs) emerged from the project, few addressed the underlying mechanisms that enabled mentoring to transform teacher practice from traditional, teacher-centred approaches to child-centred pedagogy. Equally absent were analyses of the relational dynamics, the enablers and barriers shaping the mentor–teacher partnership. Understanding these processes is crucial for informing future mentoring frameworks, especially in rural and remote regions like Kupang.

By investigating these relational and contextual dimensions, this study seeks to contribute new insights into how mentoring can be effectively sustained and adapted to strengthen Indonesia’s early childhood education workforce and ensure equitable access to quality learning for all young children.

My story of working with Early Childhood Education (ECE) Teachers

My engagement with ECE mentoring began during my work with UNICEF Indonesia, where I served as an Early Childhood Development (ECD) Officer responsible for planning,

implementing, and monitoring a mentoring-based teacher development programme across 100 ECE centres in Kupang District. This experience allowed me to witness both the challenges and the transformative impact of mentoring in shaping teachers' classroom practices.

When visiting pilot centres in 2016, I observed that most classrooms were teacher-centred, with formal seating, limited learning materials, and a focus on rote learning. Children were often asked to sit quietly and repeat lessons, with few opportunities for exploration or play. These practices contrasted sharply with the National ECE Curriculum, which promotes active, play-based learning. Over time, as mentors began to support teachers through feedback and modelling, classrooms became more child-friendly and interactive. Teachers incorporated locally available materials and engaged children in meaningful learning activities. This transformation inspired my research interest in understanding how mentoring relationships can drive pedagogical change and professional growth in ECE contexts.

The ECE teacher mentoring programme was implemented in the Kupang district from 2016 to 2020. The main activities included a series of trainings, including on-the-job training for mentors and ECE teachers, face-to-face mentoring sessions between mentors and teachers at the ECE centres, and strengthening ECE teacher working groups to improve teaching practices, and I was involved in each activity. At the beginning of 2019, I witnessed significant changes in classroom arrangement and teacher practices. The classroom became more child-friendly, with flexible seating arrangements and the use of local materials. Teachers began incorporating more interactive and play-based learning activities, aligning better with the national ECE curriculum guidelines. This experience piqued my curiosity about whether these changes related to mentors' performance in guiding the ECE teachers' practices in the pilot programme.

Research Aim

Against this background, this study aims to understand how mentoring relationships are enacted, experienced, and sustained as a form of professional development for ECE teachers in Kupang District, Indonesia. In particular, it examines how mentor–teacher interactions and professional learning practices are shaped by the personal characteristics of mentors and teachers, their relational and institutional contexts, broader socio-cultural and policy

environments, and changes occurring over time. Bronfenbrenner's bioecological theory, particularly the Process–Person–Context–Time (PPCT) model, provides the theoretical framework through which these interconnected dimensions are examined. The formal research questions are therefore presented at the end of Chapter III: Theoretical Framework, so that their alignment with the PPCT model is made explicit.

Thesis outline

This thesis is organised into eight chapters, each building progressively to examine mentoring within the Holistic-Integrative Early Childhood Development (HI-ECD) programme in Kupang District through a bioecological lens.

Chapter I: Introduction

This chapter introduces the research context and rationale for the study. It situates the mentoring programme within the broader landscape of early childhood education (ECE) in Indonesia, including national policy developments, workforce characteristics, and international influences. The chapter outlines the HI-ECD programme in Kupang District, presents the research problem, articulates the study's aims and research questions, and concludes with an overview of the thesis structure.

Chapter II: Literature Review

This chapter reviews scholarship on ECE teacher professional development, mentoring theory, and educative mentoring. It traces the evolution of mentoring from traditional support models to contemporary, inquiry-oriented approaches. The chapter also explores mentoring in ECE settings globally and in Indonesia, identifying conceptual and empirical gaps. The review culminates in positioning educative mentoring within an ecological framing, establishing the conceptual foundation for the study.

Chapter III: Theoretical Framework

This chapter presents the interpretive-constructivist research paradigm and elaborates Bronfenbrenner's ecological and bioecological theory, particularly the Process–Person–Context–Time (PPCT) model. It explains how each component of the PPCT framework

informs the study's conceptualisation of mentoring. The chapter concludes with the statement of research questions, aligned with the bioecological lens.

Chapter IV: Research Design and Methodology

This chapter outlines the qualitative instrumental case study design adopted in the study. It describes participant recruitment, data generation methods (online surveys, semi-structured interviews, and document analysis), and data analysis procedures. Ethical considerations, trustworthiness strategies, and researcher positionality are also addressed. The chapter demonstrates how methodological decisions align with the theoretical framework.

Chapter V: Findings – Part 1

This chapter presents findings related to the first three components of the PPCT model: Process, Person, and Context (microsystem and mesosystem levels). It begins with an overview of research participants and then presents findings on proximal processes in mentoring relationships, personal characteristics of mentors and teachers, and relational dynamics within immediate and interconnected systems.

Chapter VI: Findings – Part 2

This chapter continues the findings by examining the broader contextual layers of the PPCT model: exosystem, macrosystem, and chronosystem. It explores how institutional structures, policy environments, socio-cultural norms, and temporal changes (including donor transitions and the COVID-19 pandemic) shape mentoring practices and sustainability.

Chapter VII: Discussion

This chapter interprets the findings through the bioecological framework and existing literature. It examines mentoring as a dynamic, relational, and contextually embedded professional learning process. The discussion integrates Process, Person, Context, and Time to explain how mentoring relationships are shaped, sustained, or constrained within the Kupang setting.

Chapter VIII: Conclusion and Implications

The final chapter summarises the study's key findings and theoretical contributions. It outlines implications for policy, mentoring design, and ECE professional development in Indonesia and similar contexts. The chapter concludes with reflections on the study's limitations and recommendations for future research.

CHAPTER II: LITERATURE REVIEW

Introduction

This chapter critically reviews the literature that informs and frames this study of mentoring within a Holistic-Integrative Early Childhood Development (HI-ECD) programme in Kupang District, Indonesia. The review situates mentoring within broader debates on early childhood education (ECE) teacher professional development, tracing its evolution from traditional supervisory models to contemporary, relational, and educative approaches. While mentoring is increasingly recognised as a promising strategy for supporting teacher learning, much of the existing research has been conducted in Western or higher education contexts. Empirical studies examining mentoring in early childhood settings, particularly in low-resource or Global South contexts, remain limited. Moreover, relatively few studies adopt an ecological perspective that considers how mentoring is shaped not only by interpersonal interactions but also by institutional, socio-cultural, and policy environments over time.

This chapter reviews the key literature that informs and shapes the conceptual foundation of this study. It begins by examining early childhood education (ECE) teacher professional development, highlighting common models such as workshops, reflective practice, and collaborative learning, and discussing their strengths and limitations. Within this broader discussion, mentoring is introduced as a relational and sustained form of professional development that supports teachers' ongoing learning. The chapter then explores how mentoring has been defined across disciplines, tracing its development from traditional hierarchical models to more collaborative and educative approaches. Particular attention is given to the concept of educative mentoring, which guides this study.

The chapter further examines the characteristics of effective mentoring relationships, including the personal and professional qualities of mentors and mentees. It then situates mentoring within early childhood contexts globally, with attention to differences between the Global North and the Global South, and, more specifically, within Southeast Asia and Indonesia. By reviewing these bodies of literature, the chapter identifies key gaps, particularly the limited use of ecological perspectives and the scarcity of research on mentoring in resource-constrained and decentralised contexts. These gaps provide the

rationale for adopting a bioecological framework in the following chapter and for conducting this case study of mentoring in Kupang District.

Professional development of ECE teachers

Continuous professional development (CPD) is recognised as a critical component across professional fields, necessitating the ongoing expansion of knowledge and the application of research-informed practices (Avalos, 2011; Darling-Hammond et al., 2017; Kennedy, 2014; Opfer & Pedder, 2011). It is beyond the scope of this study to review and critique the literature on continuous professional development. Rather, the intention is to highlight the context from which the concept of mentoring has emerged, establishing a foundation for the subsequent literature review.

The need for CPD is particularly pronounced in early childhood education (ECE), where educators play a pivotal role in shaping young children's foundational learning experiences. Within the field of CPD in ECE, there is a growing consensus on the key priorities that underpin effective professional development (Schachter, 2015; Schachter et al., 2019). Buysse et al. (2009) argue that, beyond acquiring knowledge and technical skills, professional development (PD) must also cultivate educators' professional dispositions and focus on the application of learning in authentic teaching contexts. Complementing this, Buysse and Hollingsworth (2009) propose that the design of PD initiatives must carefully address participant characteristics, content relevance, and modes of delivery, the 'who, what, and how', to maximise impact. Despite these frameworks, challenges persist regarding how PD should be structured to achieve sustainable improvements in teaching quality and child outcomes, signalling the need for ongoing research and innovation in this area (Brunsek et al., 2020; Schachter, 2015). Cherrington and Thornton (2013) similarly highlight that effective professional development in early childhood education is ongoing and embedded in teachers' everyday practice, with opportunities for reflection and collaboration supporting sustained professional learning.

Consistent improvement of knowledge and skills is essential for ECE teachers to effectively implement evidence-based practices that support young children's learning and development (Snyder et al., 2015). Similarly, Darling-Hammond (2017) emphasises that sustained professional development is critical for translating effective instructional strategies into

positive student outcomes. Building on this, Schachter et al. (2019) argue that engaging ECE teachers in effective in-service professional development is fundamental to establishing and maintaining high-quality early childhood education environments. Although all three perspectives stress the necessity of continuous professional development, Snyder et al. (2015) and Darling-Hammond (2017) primarily highlight the direct relationship between professional learning and classroom practice, whereas Schachter et al. (2019) frame professional development as a structural condition essential for quality enhancement within ECE settings.

Expanding on the conceptualisation of professional development, the National Association for the Education of Young Children (2019) defines it as a structured, intentional learning process that equips educators with the competencies needed to engage effectively with children and families. In alignment with this view, Darling-Hammond et al. (2017) describe professional development as a series of deliberate teaching and learning experiences, supported by structured guidance and opportunities for practice. Darling-Hammond (2007) further underscores that effective professional development must lead to measurable gains in teacher knowledge, instructional quality, and student outcomes. Together, these perspectives (Darling, 2007; National Association for the Education of Young Children (NAEYC), 2019) emphasise the importance of professional development as a systematic, embedded process that combines formal training with job-embedded learning opportunities to enhance teaching effectiveness and improve outcomes for children. Consequently, professional development is not seen as isolated training events, but rather as an integral component of a broader continuum of professional learning that drives continuous improvement in ECE practice.

Professional development for early childhood education teachers involves a range of strategies designed to strengthen their knowledge and skills, ultimately promoting high-quality learning experiences for young children. Among these strategies, workshops and targeted training sessions (Edwards et al., 2011) provide focused knowledge, while supervision by ECE supervisors and principals (Latiana et al., 2018) ensures ongoing professional guidance. Reflective practices, such as engaging in action research (Dewi, 2021) and participating in peer observations and feedback (Parr & Hawe, 2017), foster continuous self-evaluation and collective learning. Additionally, keeping abreast of current research through professional readings (Schachter et al., 2019) and gaining practical experience via

internships and practicums (Crețu, 2021; La Paro et al., 2018) further consolidate pedagogical skills. Mentoring and coaching relationships, alongside involvement in professional learning communities (PLCs), have been widely recognised as crucial for promoting collaborative growth and sustained improvement in teaching practices (Doan, 2013; Kupila & Karila, 2019; Nolan & Molla, 2018; Walters et al., 2020). Through these interconnected approaches, ECE teachers are better equipped to enhance their practices and contribute effectively to young children's development.

Professional development programmes differ in their effectiveness in delivering new knowledge, improving teaching practices, and enhancing child outcomes, making it challenging for teachers and ECE managers to determine the most beneficial options for their centres (Opfer & Pedder, 2011; Zaslow et al., 2010). As studies by Sheridan et al. (2009) conclude, workshops and training sessions for ECE teachers are essential for enhancing teaching quality and improving child outcomes. However, their effectiveness can be hindered by several challenges, including time constraints and scheduling conflicts, limited practical application and relevance, and insufficient access to resources and support, as found by Oberhuemer (2015) and Linder et al. (2016). Similarly, supervision by ECE supervisors and ECE principals presents challenges, as noted by Sheridan et al. (2009) and Dennis and Horn (2014), who highlight issues such as a lack of constructive feedback and support, inconsistent expertise and training among supervisors, power dynamics and teacher resistance, as well as time and resource constraints. These challenges highlight the complexities of professional development in early childhood education by addressing both the structural challenges of workshops and training sessions and the limitations of supervisory practices, emphasising the need for more sustainable, contextually relevant, and well-supported professional learning approaches.

Engaging in action research, reflective practice, internships and practicums are valuable professional development strategies for ECE teachers. However, these approaches present several challenges, including time and workload constraints (La Paro & King, 2019; Maaranen, 2009), limited institutional support and resources (Brookfield, 2017; Recchia & Shin, 2010), and variability in implementation and impact (Carr & Kemmis, 2003; Ryan et al., 2011). Similarly, conducting observations and peer feedback for shared learning (Parr & Hawe, 2017) and reading professional literature to stay updated on current research

(Schachter et al., 2019) are meaningful professional development strategies to help ECE teachers critically analyse and refine their teaching methods, leading to improved instructional strategies. Yet, these methods also face obstacles, such as time and workload constraints, variability in quality and engagement, and institutional and structural barriers (Parr & Hawe, 2017; Schachter et al., 2019).

Building on these professional development strategies, mentoring emerges as a pivotal approach that fosters teacher growth, strengthens instructional practices, and positively impacts student outcomes, as highlighted by Nolan (2017), Ben-Harush and Orland-Barak (2019), and Andrews et al. (2025). Beyond providing direct guidance and support, mentoring offers opportunities for personalised professional learning, enabling teachers to receive targeted feedback and develop strategies to address their specific classroom challenges (Collin, 2019). Through sustained collaboration with experienced mentors, Bennett and Burridge (2018) suggest teachers can refine their instructional techniques and explore innovative pedagogical methods, while Ressler et al. (2015) purport that collaboration increases teachers' confidence in implementing best practices (Ressler et al., 2015). Moreover, mentoring fosters a culture of continuous learning and professional reflection, encouraging teachers to assess their approaches and make informed, critical improvements (Dole et al., 2016). These benefits position mentoring as a dynamic and effective professional development strategy, which I will explore further in the next section.

Mentor and mentoring definitions and scope

The concept of mentoring has evolved significantly over time, reflecting shifts in the roles and dynamics of relationships between mentors and mentees. Traditionally, mentoring involved a hierarchical relationship in which a senior colleague guided a junior colleague through career growth and personal development (Kram, 1983). In contrast, contemporary perspectives on mentoring introduce alternative approaches, such as peer mentoring, which emphasise collaborative relationships while maintaining a focus on career and psychosocial development (Mullen & Klimaitis, 2021).

Traditional mentoring: Description and scope

Mentoring has been widely recognised as a significant professional development strategy in organisational contexts. Kram's (1983) seminal work defined a mentor as an individual with

more experience and expertise who provides support to foster the career advancement of a junior colleague. This definition laid the groundwork for understanding mentoring as both a developmental and psychosocial process. Building on this, Hobson et al. (2012) highlight the dual role of mentors as role models and advisors, underscoring the interpersonal and professional dimensions of the mentoring relationship.

Traditional views of mentoring emphasise the hierarchical transfer of knowledge and skills from a more experienced individual to someone less experienced (Craft, 2000). Expanding on this foundation, Hobson et al. (2009) conceptualise mentoring as a structured, one-to-one support mechanism in which experienced practitioners assist novices in developing professional competencies while also aiding their socialisation into the profession's cultural norms and the specific organisational context. Such perspectives underscore the dual function of mentoring as both a pedagogical and socialising tool. Extending this view, Varney (2009) frames mentoring as a relational and developmental process that encompasses not only instructional guidance but also emotional support, motivation, and the cultivation of self-efficacy. This relational framing shifts the focus from a unidirectional model to a more dynamic, reciprocal interaction. Collectively, these definitions suggest that mentoring in professional development is a complex, multidimensional process that incorporates cognitive, emotional, and contextual dimensions, each of which is crucial for fostering sustained professional growth.

Traditional mentoring is typically characterised by a one-way learning process in which the mentor serves as the expert and the mentee assumes the position of passive learner (Kram, 1983; Schunk & Mullen, 2013). In this sense, what is often described as ‘classical’ mentoring reflects the same hierarchical structure embedded in traditional models. Such arrangements reinforce power asymmetries, which can hinder mutual learning and obscure the dynamics of authority within mentoring relationships (Mullen & Klimaitis, 2021). Critics argue that such arrangements are inherently exclusionary, as they often reflect and perpetuate institutional norms that privilege dominant groups while marginalising voices from underrepresented or historically underserved populations (Fletcher & Mullen, 2012; Hansman, 2003; Mullen, 2017, 2020b; Schunk & Mullen, 2013). Particularly within predominantly White institutions, conventional mentoring has been implicated in reproducing inequities, thereby failing to accommodate diverse experiences and identities. These critiques underscore the need for

more inclusive and reciprocal models of mentoring that acknowledge power asymmetries and promote equity in professional learning contexts.

Over time, traditional mentoring models have disproportionately advantaged men, thereby reinforcing entrenched gendered and racialised hierarchies within professional spaces (Mullen & Klimaitis, 2021). The practice of matching mentors and mentees based on shared gender or racial identity, while sometimes beneficial, can also restrict opportunities for cross-cultural engagement and inadvertently uphold exclusionary norms (Mullen, 2017; Reddick & Young, 2012). Such patterns have contributed to the systemic underrepresentation of women and ethnic minorities in leadership and decision-making roles. These persistent limitations underscore an urgent need for more inclusive, dialogic, and reciprocal mentoring approaches that not only acknowledge and value diverse lived experiences but also actively work to dismantle structural barriers to equitable professional development.

Traditional mentoring encompasses two primary functions: career and psychosocial support. The career-related functions focus on instrumental support, such as goal-setting, networking, job placement, and skill development, and are commonly reflected in mentoring formats such as sponsorship, coaching, and structured work assignments (Johnson, 2017; Young et al., 2004). In parallel, psychosocial functions address the mentee's emotional and social development through role modelling, counselling, affirmation, and the cultivation of trust-based relationships (Clark et al., 2000; Mullen, 2017). These dual functions have long shaped foundational understandings of mentoring and continue to influence prevailing theories and practices. However, as professional landscapes become increasingly complex, diverse, and interconnected, the limitations of traditional models have prompted scholars and practitioners to explore more dynamic and inclusive approaches to mentoring, giving rise to contemporary models that emphasise mutual learning, equity, and relational engagement.

Contemporary mentoring: Description and scope

Contemporary conceptualisations of mentoring move beyond hierarchical, career-oriented models toward more relational, inclusive, and developmentally oriented frameworks (Brewer, 2016; Clutterbuck et al., 2017; Mullen, 2017). Rather than positioning the mentor solely as an expert who transfers knowledge, contemporary approaches emphasise reciprocity, trust, identity affirmation, and mutual learning as central mechanisms of professional growth.

Scholars such as Fletcher and Mullen (2012), Mullen (2017), Schunk and Mullen (2013), and Cobb-Roberts et al. (2017) reconceptualise mentoring as a dialogic process that attends to power relations, diverse lived experiences, and the socio-cultural contexts in which professional learning occurs.

Ragins and Kram (2007) argue that high-quality mentoring relationships are characterised by relational depth, psychological safety, and sustained interaction, rather than mere technical guidance. Empirical research supports this shift, demonstrating that contemporary mentoring contributes not only to career advancement but also to enhanced self-efficacy, professional identity formation, job satisfaction, and retention (Allen et al., 2004; Ingersoll & Strong, 2011). In this sense, mentoring is best understood as a relational and developmental partnership that facilitates holistic professional growth through sustained, context-responsive engagement. This paradigmatic shift reflects a growing recognition that mentoring is not merely a vehicle for professional advancement, but also a means of cultivating adaptive, empathetic, and empowering relationships that respond to the complexities of today's educational and organisational contexts.

A key aspect of contemporary mentoring is its focus on psychosocial development, which increasingly includes elements of friendship (Young et al., 2004). Friendship is often characterised as an unbounded, aimless conversation between individuals who find mutual enjoyment in each other's company, whereas mentoring is typically more goal-directed and structured (Brewer, 2016). Although befriending, characterised by warm and empathetic support, has been acknowledged as a valuable psychosocial function within mentoring relationships (Kram, 1983) and a means of fostering trust and emotional safety (Young et al., 2004), it remains conceptually distinct from friendship, which lacks the intentional structure and professional boundaries central to mentoring. Scholars have cautioned that blurring the boundaries between mentoring and friendship may lead to complications, particularly in academic contexts where clear roles and expectations are critical (Brewer, 2016; Johnson, 2017). As such, while qualities similar to friendship can enhance trust and emotional support, the mentor-mentee relationship must be navigated carefully to preserve the professional integrity of the mentoring relationship.

Contemporary mentoring increasingly integrates personal support with professional guidance, reflecting a growing recognition of the importance of psychosocial development alongside

career advancement. This integrated approach acknowledges that effective mentoring extends beyond the transmission of skills to include emotional support, identity development, and relational trust (Crisp & Cruz, 2009; Ellis & Loughland, 2017; Mullen, 2017). Over time, scholars have continued to emphasise the need to balance these relational and professional dimensions. Almog and Hertz-Lazarowitz (1999), for example, highlighted the risks of blurred boundaries when mentoring becomes overly personal, advocating a structured, intentional approach. Ulanovsky and Perez (2017) reaffirmed this position, arguing that while mentoring relationships should be adaptive and responsive, they must remain focused on defined goals and developmental outcomes. Together, these perspectives illustrate an ongoing scholarly concern with maintaining the integrity and effectiveness of mentoring as both a relational and professional practice (Almog & Hertz-Lazarowitz, 1999; Crisp & Cruz, 2009; Johnson & Griffin, 2025; Mullen, 2012; Ulanovsky & Pérez, 2017).

Crow (2012) argues that traditional mentoring constructs often suffer from conceptual ambiguity, lack clear boundaries, and lead to confusion about what constitutes authentic mentoring practice. Responding to these critiques and drawing on the growing body of mentoring literature, Mullen and Klimaitis (2021) propose nine categories of mentoring alternatives: formal mentoring, electronic mentoring, co-mentoring (or collaborative mentoring), group mentoring, peer mentoring, informal mentoring, diverse mentoring, multilevel mentoring structures, and cultural mentoring. This classification expands the concept of mentoring beyond the classical construct, which has been criticised as static, outdated, and uninspiring (Crow, 2012). These diverse models reflect a broader shift in educational mentoring research towards more inclusive, responsive, and context-sensitive practices that better support diverse learners and professionals across varying institutional and cultural settings.

This thesis, which explores mentoring as a dynamic and relational process within professional development in early childhood education, draws on five mentoring types as outlined by Mullen and Klimaitis (2021) (see Table 4) that appear most relevant to the mentoring relationships observed (based on my previous professional experience) in the Kupang district context: formal, electronic, co-mentoring or collaborative, peer, and group mentoring. While the thesis does not exclusively focus on these models, they serve as a conceptual lens to help interpret the diverse forms of mentoring that emerge in practice.

These selected types resonate with the thesis's emphasis on relational agency, reciprocal learning, and the evolving nature of professional identity formation within complex, context-dependent educational settings.

Table 4

Classification of Mentoring Types and Their Key Associated Dimensions

Mentoring type	Key associated dimension
Formal mentoring	Planned programmatic interactions
Electronic mentoring	Interaction at a distance via technology
Co-mentoring/collaborative mentoring	Transformative relational development
Group mentoring	Shared agendas grounded in differences
Peer mentoring	Peer-based, empowering, helping relationship

Formal mentoring

Formal mentoring is a planned, structured, and intentional approach aimed at addressing gaps and resolving challenges within programmes and organisations. It focuses on creating strong, adaptive, and sustainable programmes (Clutterbuck et al., 2017; Single, 2008), with notable applications in fields such as science, technology, engineering, and mathematics (STEM) and in educational settings, such as universities and schools. This form of mentoring is increasingly being reconceptualised to promote equity by including underrepresented groups, such as females and ethnic minorities. The goal is to transform mentees into self-directed, responsible learners who are capable of advocating for themselves (Lunsford et al., 2017). Programs at institutions like The University of Texas and Georgia Tech emphasise the integration of deeper learning principles, fostering skills like collaboration, critical thinking, and self-regulation (Windchief & Brown, 2017). In contrast, casual or unstructured mentoring relationships lack the intentional design and clear objectives typical of formal mentoring and are not considered formal mentoring (Mullen & Klimaitis, 2021). These relationships often involve more spontaneous, personal interactions, without the strategic planning inherent in formal mentoring programmes.

One primary criticism of formal mentoring relationships is that they are often perceived as more superficial than naturally occurring ones. This superficiality has been attributed to the

lack of chemistry and personal commitment between the mentor and mentee (Kram, 1983). Research suggests that informal mentoring relationships are often associated with more positive career and psychosocial outcomes than formal mentoring arrangements (Ragins & Cotton, 1999). However, negative experiences are not unique to formal mentoring; dysfunctional dynamics can also emerge in informal relationships due to mismatched expectations, interpersonal conflict, or limited support (Eby et al., 2000).

In the context of my research, the formal ECE teacher mentoring programme in the Kupang district, designed by the government, implementing organisations, and donor agencies, provides a framework for exploring these criticisms. The study investigates both the positive and negative experiences that mentors and mentee-teachers encountered during the programme's implementation. This approach allows for a closer examination of the challenges associated with formal mentoring, such as a lack of chemistry or personal commitment, and how these may have influenced the programme's outcomes.

Electronic mentoring

In recent years, the mentoring landscape has undergone a dramatic transformation, adapting to technological advancements. Electronic mentoring, or e-mentoring, represents a significant shift, utilising technology, especially the internet, to facilitate remote learning and communication. This includes social media platforms (e.g., Facebook and Instagram), online platforms (such as YouTube), synchronous chats, and email (Lunsford et al., 2017; Schunk & Mullen, 2013; Single & Single, 2005; Smith & Anderson, 2018). E-mentoring is increasingly common in universities, supporting students' academic transitions and overall success by overcoming barriers like hostile environments (Lunsford et al., 2017). The effectiveness of e-mentoring depends on the mentees' resources, commitment, readiness, and technical proficiency (Mullen & Klimaitis, 2021). Although it lacks the personal connection inherent in face-to-face mentoring, e-mentoring aims to maintain a high-touch approach, using technology to sustain human contact and ensure privacy (Mullen, 2020a).

While the reach and flexibility of e-mentoring hold great promise, it is important to distinguish structured, goal-oriented e-mentoring from casual or unstructured online interactions, which lack intentional design and therefore do not constitute formal e-mentoring (Pachler & Redondo, 2012). The global shift during the COVID-19 pandemic demonstrated

the necessity and effectiveness of remote learning and mentorship, reinforcing the potential of e-mentoring to offer continuous support across physical distances.

However, in contexts like the Kupang district, significant challenges, such as limited internet connectivity and digital infrastructure, may hinder the implementation of effective e-mentoring. By examining these local barriers, this research aims to inform the development of contextually appropriate strategies to enhance mentoring practices and outcomes in the region.

Co-mentoring/collaborative mentoring

Clutterbuck (2014) and Mullen (2017) conceptualise co-mentoring, also referred to as collaborative mentoring, as a dynamic and reciprocal partnership in which individuals, whether peers or those with differing levels of experience, engage in shared learning while working toward common goals and values. Rather than privileging hierarchy, this approach recognises and respects differences in knowledge, expertise, status, and rank, fostering relationships grounded in advocacy, collaboration, and ethical responsiveness. Subsequent studies have shown that co-mentoring can expand professional opportunities for underrepresented groups, particularly women and people of colour, by challenging stereotypes and addressing systemic barriers embedded in traditional mentoring arrangements (Rayburn et al., 2010).

In contrast to conventional mentoring models that are hierarchical and non-reciprocal, co-mentoring foregrounds inclusivity, fairness, and justice (Bona et al., 1995). Johnson (2017) emphasises that ethical sensitivity is central to this model, requiring mentors to be attentive to mentees' personalities, needs, and contextual nuances. The effectiveness of co-mentoring, therefore, depends on the willingness and capacity of all participants to engage authentically, respond to individual needs, and uphold ethical standards. As such, co-mentoring offers a more equitable and context-responsive approach to professional growth and support, particularly relevant in diverse and evolving educational environments.

Group mentoring

Browne-Ferrigno and Muth (2004) and Mullen (2011) describe group mentoring as an expansion of the traditional dyadic mentoring model, involving three or more individuals who collectively support one another's professional and personal development across diverse

contexts, including public schools and university programmes. Unlike collaborative (co-) mentoring, which emphasises reciprocal learning within a primarily dyadic partnership, group mentoring is structurally organised around multi-member interaction, in which learning occurs through collective dialogue and shared responsibility. Rather than centring on a single mentor–mentee relationship, group mentoring promotes flexibility, inclusivity, relational equality, and the co-construction of knowledge. Through shared dialogue and collective problem-solving, this model creates a supportive space for exchanging ideas, addressing challenges, and fostering both career advancement and psychosocial development (Kroll, 2016; Lunsford et al., 2017).

From a critical and equity-oriented perspective, Rawlinson and Willimott (2016) argue that group mentoring can extend access to professional learning for individuals who are often excluded from traditional mentoring arrangements, thereby advancing principles of social justice and inclusive participation. Power and authority within group mentoring are more evenly distributed, leadership is shared, and hierarchical structures are intentionally flattened to enable collaborative learning and mutual accountability (Mullen & Klimaitis, 2021). In contrast, conventional one-to-one mentoring relationships tend to reproduce hierarchical norms and transactional exchanges, which may limit the relational, collective, and egalitarian potential that characterises group mentoring.

Peer mentoring

Almog and Hertz-Lazarowitz (1999) and Ulanovsky and Perez (2017) conceptualise peer mentoring as a form of developmental learning that can occur in both formal and informal settings and is relevant for individuals across career stages, from newcomers to more experienced practitioners. Research consistently shows that peer mentoring fosters persistence, success, and a sense of belonging among participants, particularly in activity-based learning environments such as laboratories, workplaces, and online platforms (Lunsford et al., 2017). Empirical studies further indicate that first-year undergraduates and at-risk or underserved populations often benefit most from peer mentoring, as it provides accessible, relationally supportive learning opportunities (Mullen, 2011, 2020b; Schunk & Mullen, 2013).

In contrast to hierarchical mentoring models, peer mentoring is characterised by mutuality and non-hierarchical relationships that promote engagement, collaboration, communication,

and reciprocal support (Holbeche, 1996; Mullen, 2020b). These relationships may take the form of dyads, peer groups, or other collaborative arrangements, offering both career-related and psychosocial benefits, including enhanced self-efficacy, professional socialisation, and retention (Kram, 1983). From this perspective, peer mentoring supports learning as a shared social process rather than a one-directional transfer of expertise.

Scholars reframe peer mentoring as a co-constructed learning process, moving beyond the traditional mentor–mentee dichotomy. Nolan (2017) argues that a peer mentor may be a co-worker, an age-peer, or an individual with slightly more experience, while Franke and Dahlgren (1996) describe peer mentoring relationships as egalitarian collaborations focused on solving authentic practice-based problems. Similarly, Hargreaves and Fullan (2000) highlight the potential of co-learning models to foster innovation and reform within educational settings. As Koballa et al. (2008) observe, the distinction between experts and novices becomes increasingly blurred, creating space for joint inquiry and collective professional growth.

In contemporary practice, peer mentoring frequently overlaps with coaching and induction processes, which can generate conceptual ambiguity (Mullen & Klimaitis, 2021). Although some scholars acknowledge that individuals may assume both mentoring and coaching roles interchangeably (Hymans, 2019), maintaining conceptual distinctions remains important for clarifying their practical implications. The Chartered Institute of Personnel Development provides a widely recognised framework distinguishing mentoring and coaching based on dimensions such as relationship duration, formality, experience, agenda, and focus; these distinctions are summarised from Hymans’ work (2019, p. 24) in Table 5.

Table 5
Key Difference Between Mentoring and Coaching

Mentoring	Coaching
Involves an ongoing relationship that often develops over an extended period.	Usually operates within a clearly defined timeframe.
Interactions tend to be flexible and informal, with meetings arranged as needs emerge.	Sessions are formalised, structured, and scheduled in advance.

Adopts a long-term, holistic perspective that considers both professional and personal dimensions.	Oriented toward short-term outcomes and clearly specified issues.
Typically involves a mentor with greater experience and often a more senior position.	Does not require the coach to have direct experience in the coachee's role or profession.
Centres on broader career trajectories and personal development.	Concentrates on improving specific work-related skills or performance.
The direction and focus of the relationship are largely determined by the mentee.	The agenda is goal-driven and oriented toward achieving immediate results.
Prioritises sustained professional growth and identity development.	Emphasises addressing targeted development needs or performance challenges.

Although these distinctions provide a useful framework, they reflect more traditional models that assume mentors are older, more senior, or more experienced. This model may not fully capture the evolving nature of mentoring, particularly peer and reverse mentoring, where roles can be fluid and mutually beneficial. In modern contexts, hybrid approaches that combine mentoring and coaching elements are increasingly valuable, enabling both long-term developmental goals and short-term skills-based achievements to be addressed simultaneously. Recognising this evolving practice is especially relevant for understanding how peer mentoring might operate in diverse settings such as Kupang.

The five classifications of mentoring discussed in the preceding sections: formal, electronic, co-mentoring or collaborative, group, and peer mentoring, demonstrate the adaptability and relevance of mentoring across a wide range of professional settings. These models share two key characteristics: an emphasis on both career development and psychosocial support, and a move toward collaborative, reciprocal relationships that challenge traditional hierarchical structures. While these forms of mentoring have been well documented across secondary (Rhodes et al., 2006), post-secondary (Crisp & Cruz, 2009), and higher education contexts (Jacobi, 1991; Nora & Crisp, 2007; Terrion & Leonard, 2007), there remains limited exploration of how mentoring is tailored to specific professional roles or learning environments. This observation highlights the need for deeper investigation into the

pedagogical dimensions of mentoring and how mentoring relationships can be designed to support meaningful professional learning.

To conclude, this section has outlined the evolution of contemporary mentoring practices, emphasising their increasingly complex and collaborative nature across various contexts. The discussion now turns more specifically to mentoring in education, highlighting its diverse forms and benefits, and situating *educative mentoring* as a key approach that foregrounds intentional, practice-based learning interactions aimed at fostering deep, sustained professional growth.

Understanding mentoring in education

Hobson et al. (2009) and Ingersoll and Strong (2011) position mentoring as a critical mechanism for supporting teachers' professional learning, identity formation, and long-term career development. Within educational contexts, mentoring facilitates knowledge sharing, nurtures reflective practice, and creates relational spaces that support continuous professional improvement (Wang & Odell, 2002). A substantial body of research demonstrates that well-designed mentoring relationships can enhance teaching quality, strengthen novice teacher retention, and foster cultures of collaboration and shared inquiry within schools and educational institutions (Kochan & Pascarelli, 2003). However, the effectiveness of mentoring is not universal or automatic; its impact is shaped by the quality of mentor–mentee relationships, the availability of institutional support, and the broader socio-cultural and organisational contexts in which mentoring is embedded.

As mentoring practices have evolved, scholars have increasingly challenged technical and transmission-oriented models, advocating instead for approaches that foreground learning, pedagogy, and sustained professional growth. Feiman-Nemser (2001) and Norman and Feiman-Nemser (2005) conceptualise educative mentoring as a learning-centred approach that emphasises intentional interactions grounded in teaching practice, reflective inquiry, and pedagogical reasoning. This shift reflects a broader reconceptualisation of mentoring as a relational and developmental process rather than a hierarchical mechanism for skill transfer.

Building on this literature, this section examines mentoring in education through four interrelated dimensions that together offer a more nuanced and critical understanding of mentoring practice. First, it considers mentoring as a strategy for teacher professional

development, with particular attention to identity formation, instructional quality, and retention, especially among novice educators. Second, it introduces educative mentoring as an alternative to traditional hierarchical models, highlighting its emphasis on collaborative, learning-focused relationships. Third, it explores the relational dynamics of mentoring, recognising how power, trust, reciprocity, and ethical sensitivity shape mentoring interactions. Finally, it examines the personal and professional qualities of mentors and mentees, acknowledging the interplay between individual dispositions, institutional conditions, and contextual constraints. Collectively, these dimensions provide an analytical foundation for situating mentoring within a broader ecological perspective, which is elaborated later in this chapter.

The significance of mentoring in teacher professional development

Avalos (2011) and Opfer and Pedder (2011) conceptualise teacher professional development (PD) as a dynamic and long-term process that extends beyond episodic training and isolated workshops. Within this framework, mentoring plays a critical role by supporting teachers' learning-in-practice and facilitating the translation of theoretical knowledge into pedagogical action. Empirical studies demonstrate that sustained mentoring interactions enable teachers, particularly those at the beginning of their careers, to reflect on classroom experiences, navigate instructional complexities, and deepen pedagogical content knowledge, thereby bridging the gap between pre-service preparation and in-service professional realities.

Scholars further argue that mentoring offers distinctive advantages for professional learning because it is relational, situated, and embedded within authentic teaching contexts. Darling-Hammond and McLaughlin (2011) highlight that, unlike formal PD activities that are often disconnected from teachers' immediate concerns, mentoring provides continuous, job-embedded support responsive to everyday classroom demands. When mentoring is structured as a collaborative and inquiry-oriented process, it can foster shared responsibility for learning through reflective dialogue, joint problem-solving, and reciprocal feedback. Such processes not only strengthen instructional practice but also contribute to the formation of professional identities oriented toward reflection and lifelong learning (Loughran, 2013).

At the same time, research cautions that mentoring does not automatically lead to improved professional development outcomes. Its effectiveness depends on contextual and relational

factors, including the quality of mentor–mentee relationships, institutional support, and the extent to which mentoring is intentionally designed as a learning partnership rather than a supervisory mechanism (Achinstein & Athanases, 2006; Langdon, 2014). This recognition foregrounds the relevance of educative mentoring, which reframes mentoring as a collaborative, inquiry-driven process focused on deepening teaching practice rather than transmitting advice or enforcing compliance with standards. This conceptualisation provides the analytical lens through which mentoring is examined in the present study.

Introduction of *Educative mentoring* as a key concept guiding this study

Feiman-Nemser (2000, 2001) conceptualised educative mentoring as a form of mentoring explicitly oriented toward teacher learning. Rather than defining mentoring by its format (e.g., one-to-one, group, peer, or online), educative mentoring is defined by its purpose: to support the development of teachers' pedagogical understanding and instructional practice. At its core, educative mentoring treats teaching as a site of inquiry and positions professional learning as the central goal of the mentoring relationship.

In this approach, novice teachers and experienced mentors engage in a joint examination of classroom practice, a process Feiman-Nemser (2001) describes as central to helping novices learn to teach. Instructional decisions, student thinking, and curriculum enactment become objects of analysis, enabling mentors to support novices in developing pedagogical reasoning rather than merely providing advice.

Subsequent work further elaborates educative mentoring as a learning-focused and transformative form of professional support. Feiman-Nemser (2001) emphasises that educative mentoring responds to teachers' immediate instructional challenges while simultaneously building long-term professional capacity. Rather than offering generic advice or prescriptive solutions, it involves making teachers' thinking visible, challenging assumptions, and engaging in reflective dialogue to deepen pedagogical understanding (Norman & Feiman-Nemser, 2005).

Building on Feiman-Nemser's (1998, 2001, 2005) conception of educative mentoring as a form of professional support centred on teacher learning, Bradbury (2010) contrasts traditional mentoring with educative mentoring by highlighting their fundamentally different

orientations (see Table 6). While traditional mentoring tends to prioritise immediate problem-solving, emotional support, and retention of novice teachers, educative mentoring foregrounds sustained inquiry into teaching practice, recognises the complexity of instructional decision-making, and positions both mentor and novice as contributors to shared learning. Teaching is thus framed not as a set of techniques to be mastered, but as an evolving, context-sensitive practice requiring ongoing reflection and professional growth.

Table 6
Contrasting Traditional and Educative Mentoring

Traditional Mentoring	Educative Mentoring
Providing the support necessary to retain novice teachers in the profession. Meeting immediate needs.	Fostering a disposition of sustained inquiry into teaching practice. Meeting immediate needs while developing a long-term orientation.
Sharing practical solutions to day-to-day problems.	Thinking about teaching as a complex process where there is rarely one “right” answer.
Providing copies of lesson plans, notes, and science activities.	Using background knowledge of students and their work samples to plan lessons that support learning about a particular topic.
Sharing of advice from mentor to novice.	Valuing the contributions and ideas of both the mentor and novice.

Research further suggests that educative mentoring involves specific practices that support this inquiry-oriented stance. Educative mentors draw on students’ work samples and contextual knowledge to co-plan lessons, observe teaching, engage in reflective dialogue, and analyse instructional decisions (Stanulis et al., 2019). However, studies also indicate that mentors often develop their understanding of how to enact these roles independently and within particular institutional contexts, and relatively little research has examined how mentors themselves learn to mentor in educative ways (Langdon & Ward, 2015). This gap underscores the importance of investigating the learning processes, dispositions, and practices required to enact educative mentoring effectively.

Within an educative mentoring framework, mentoring is conceptualised as a reciprocal, constructivist, and inquiry-based process in which both mentors and novice teachers co-construct professional learning (Langdon, 2014). This approach moves beyond hierarchical

mentor–mentee relationships, emphasising collaboration, shared responsibility, and joint problem-solving (Earl & Timperley, 2009; Feiman-Nemser, 2012; Richter et al., 2013). Guided by this conceptualisation, the present study examines whether and how the principles of educative mentoring are enacted in practice, as experienced by mentors and early childhood education teachers within their specific educational contexts.

Mentoring relationship: Definitions, scopes, and theoretical perspectives

Mentoring is commonly defined as a professional relationship intended to support the growth and development of less experienced practitioners. Other scholars extend this definition by emphasising the relational and motivational dimensions of mentoring. Varney (2009) describes mentoring as a relationship oriented toward supporting, motivating, guiding, and encouraging mentees to realise their potential, while Chu (2014) frames mentoring as a long-term professional relationship grounded in domain-specific expertise. Contemporary research further conceptualises mentoring as a developmental interpersonal process characterised by dynamic and reciprocal interactions shaped by individual and contextual factors (Bozionelos et al., 2014). Extending this perspective within teacher education, mentoring has been shown to function as a socially mediated and collaborative activity system in which professional learning is co-constructed through relational agency and negotiated engagement among participants (Ben-Harush & Orland-Barak, 2019).

Despite this growing emphasis on reciprocity and collaboration, limited empirical research examines how mentoring relationships are formed, sustained, and enacted in practice, particularly in ways that meaningfully support mentees' professional growth. This gap points to the need for closer examination of the conditions under which mentoring becomes effective and transformative.

Challenging traditional hierarchical assumptions, Franke and Dahlgren (1996) argue that effective mentoring can be grounded in egalitarian relationships where mentors and mentees collaborate to address practice-based challenges. This perspective reframes mentoring as a shared problem-solving process rather than a unidirectional transfer of expertise. However, the feasibility of fully eliminating hierarchy remains contested, particularly in contexts where mentors hold greater professional authority or experience. Similarly, Hargreaves and Fullan (2000) suggest that mentoring partnerships can facilitate the application of research-informed

practices and contribute to school improvement. Yet, the transformative potential of such partnerships depends heavily on mentors' capacity to engage with current research and translate theoretical insights into practice. These discussions illustrate that mentoring relationships are shaped not only by intentions of collaboration but also by differences in expertise, authority, and professional responsibility.

Further expanding the scope of mentoring, scholars argue that mentors may include peers or colleagues operating at similar or slightly more advanced professional levels, challenging the assumption that mentoring must be hierarchical or expert-driven (Wang & Odell, 2002). From a sociocultural perspective, professional learning emerges through participation in shared practice, where distinctions between expert and novice become fluid (Lave & Wenger, 1991). This reconceptualisation frames mentoring as a reciprocal and collaborative process grounded in joint inquiry rather than one-directional transmission of expertise.

While these models promote collaboration and shared growth, they also raise critical questions about the depth and quality of guidance that can be sustained in peer-based arrangements, particularly in complex or specialised teaching contexts. In settings where expertise and experience are unevenly distributed, the assumption of full reciprocity may obscure persistent differences in knowledge, authority, and professional capacity.

In contrast to collaborative and egalitarian models, critical scholars caution that mentoring relationships are inevitably shaped by embedded power relations. Drawing on critical theory, Mosley-Wetzel et al. (2017) argue that institutional hierarchies and socially constructed roles often position mentors as figures of authority, regardless of intentions to promote equality. Power asymmetries are particularly evident when mentors hold formal responsibility for assessment, supervision, or instructional guidance (Bosman, 2015), such as during lesson observations or curriculum planning. These critiques remind us that even within models advocating shared learning, mentoring remains situated within broader institutional and cultural power dynamics that shape the lived experiences of both mentors and mentees.

Overall, the mentoring literature reflects a shift from traditional hierarchical models toward more dynamic and collaborative partnerships that emphasise reflection, dialogue, and reciprocal learning (Franke & Dahlgren, 1996; Nolan, 2017). This shift signals an increasing

recognition of mentoring as an interactive and developmental process rather than a simple transfer of expertise.

At the same time, critical perspectives remind us that power relations and institutional constraints often persist, even within ostensibly egalitarian arrangements (Bosman, 2015; Mosley-Wetzel et al., 2017). Scholars such as Klinge (2015) and Hunt (2018) nonetheless argue that mentoring retains the potential to support meaningful professional learning when grounded in trust, mutual respect, and non-judgmental engagement. Together, these perspectives illustrate both the promise of mentoring as a site of professional growth and the enduring tensions between idealised models and lived institutional realities.

Social constructivism provides a valuable theoretical lens for understanding mentoring as a relational and contextually situated learning process. From this perspective, knowledge is not transmitted from expert to novice but constructed through social interaction and dialogue. While early critiques questioned constructivism's emphasis on individual cognition (Martin & Sugarman, 1999; Young & Collin, 2004), subsequent scholarship has reframed mentoring as a socially mediated and co-constructed experience.

Studies by Murphy et al. (2005) and Patterson (2013) emphasise how professional knowledge is jointly constructed within mentoring interactions, while Bosman (2015) highlights the diverse perspectives mentors and mentees bring to shared learning contexts. Mentoring, therefore, can be understood as an interactive and dialogic process shaped by reflection, negotiation, and contextual interpretation rather than passive transmission of expertise. This perspective foregrounds the relational dimension of mentoring while acknowledging that learning is situated within specific professional and institutional contexts.

Extending beyond interpersonal interactions, a bioecological perspective articulated by Bronfenbrenner and Morris (2006) situates mentoring within nested systems of influence. From this standpoint, mentoring relationships are shaped not only by immediate interactions between mentors and mentees (microsystem), but also by school cultures, leadership structures, and organisational norms (mesosystem), as well as by institutional policies, national reforms, and broader sociocultural expectations (macrosystem). The chronosystem further highlights how mentoring evolves over time in response to policy shifts, programme cycles, and professional trajectories.

This perspective underscores that mentoring does not occur in isolation; rather, it is embedded within interconnected systems that enable, constrain, and shape how mentoring is enacted. For example, Fyall et al. (2020) demonstrate how mentoring practices in New Zealand primary schools are influenced by the interpretation and implementation of national policy at the school level, illustrating the interplay between policy environments and everyday mentoring interactions. By situating mentoring within these nested systems, a bioecological lens allows for analysis of how relational processes intersect with institutional structures and temporal change.

Traditional mentoring approaches that prioritise emotional reassurance or procedural compliance may overlook the relational and systemic complexities outlined above. In contrast, educative mentoring, as articulated by Feiman-Nemser (2001) and Norman and Feiman-Nemser (2005), aligns more closely with the realities of teaching in dynamic and context-sensitive environments. By emphasising inquiry, pedagogical reasoning, and sustained examination of classroom practice, educative mentoring positions mentoring as a site of professional learning rather than mere support.

From a social constructivist perspective, this approach recognises mentoring as a dialogic and co-constructed process grounded in reflection and shared analysis. From a bioecological standpoint, educative mentoring also acknowledges that instructional decisions and professional learning are shaped by institutional structures, policy expectations, and evolving professional standards. Thus, educative mentoring provides a conceptual framework capable of integrating relational processes with broader systemic influences.

Bringing together social constructivist and bioecological perspectives allows for a more comprehensive understanding of mentoring relationships as simultaneously relational, contextual, and systemic. Social constructivism foregrounds mentoring as a dialogic and co-constructed learning process, while the bioecological perspective situates these interactions within nested institutional, cultural, and temporal systems. Together, these lenses move the analysis beyond individual mentor–mentee dynamics to consider how mentoring is shaped by structural conditions and evolving policy environments.

This integrated framework is particularly relevant for the mentoring relationships examined in this study, which are situated within a donor-supported programme operating alongside,

rather than fully embedded within, routine government-led systems. Such positioning introduces additional layers of institutional influence, accountability expectations, and temporal constraints. By combining relational and systemic perspectives, this study conceptualises mentoring as both a site of collaborative professional learning and a process shaped by broader organisational and policy contexts. The theoretical framework elaborated in the following section builds on this integrated approach.

Perceived benefits and challenges of mentoring relationships

Research on mentoring consistently demonstrates its potential to support professional development across educational contexts. A meta-analysis by Ingersoll and Strong (2011) shows that well-designed mentoring programmes are associated with improved teacher retention, enhanced instructional quality, and positive impacts on student learning outcomes. Within early childhood education (ECE) settings, mentoring relationships have been found to foster professional dialogue, reflective practice, and collaborative problem-solving between mentors and mentees (Nolan, 2017; Nolan & Molla, 2018). Such relationships can create supportive professional spaces in which early childhood educators feel empowered to articulate their practices, address challenges, and engage with professional dilemmas in meaningful ways.

Early mentoring research largely focused on benefits for mentees, highlighting outcomes such as increased job satisfaction, improved teaching competence, enhanced confidence, higher earnings, and accelerated career progression (Allen et al., 2004; Baranik et al., 2010; Eby et al., 2008). For novice teachers in particular, mentoring has been shown to ease the transition into professional roles by providing pedagogical guidance, emotional support, and opportunities for reflection on practice. These benefits position mentoring as a key mechanism for supporting early career development and professional socialisation.

More recent scholarship, however, emphasises that mentoring relationships can also generate significant benefits for mentors themselves. Ghosh and Reio (2013) found that serving as a mentor is positively associated with greater career success, higher job satisfaction, and stronger organisational commitment. Mentoring has also been linked to personal and professional growth, including enhanced self-awareness, reflective capacity, and leadership development (Ayoobzadeh & Boies, 2020; Day et al., 2014). In this regard, mentoring is

increasingly understood as a reciprocal learning process rather than a unidirectional transfer of expertise.

Despite these documented benefits, the literature also identifies a range of challenges that can constrain the effectiveness of mentoring relationships. For mentees, mentoring may become less supportive when relationships are overly hierarchical, evaluative, or compliance-driven, limiting opportunities for open dialogue and professional risk-taking (Achinstein & Athanases, 2006). Similarly, mentors may face constraints related to time, workload, insufficient preparation for the mentoring role, and unclear expectations, which can reduce mentoring to short-term problem-solving rather than sustained professional inquiry (Langdon & Ward, 2015).

Perceived benefits identified in the literature include collaborative and supportive mentoring relationships, non-hierarchical and collegial engagement, and reciprocal gains for both mentors and mentees, as discussed in the following sections.

Collaborative and supportive mentoring relationships

The collaborative nature of mentoring relationships plays a central role in supporting both personal and professional development. Collaboration is widely recognised as a defining feature of high-quality professional learning; however, its effectiveness depends on the extent to which mentoring practices are responsive to the individual learning needs and developmental contexts of mentees (Clement & Vandenberghe, 2000). Tailoring mentoring approaches to these contexts helps ensure that learning remains relevant, situated, and meaningful (Pavia et al., 2003). Within this framework, mentoring is increasingly conceptualised as a partnership rather than a hierarchical exchange, shifting away from traditional expert–novice models toward more egalitarian forms of professional learning (Earl & Timperley, 2009; Langdon & Ward, 2015). This perspective underscores the view that professional learning is co-constructed through interaction, dialogue, and shared inquiry rather than transmitted unidirectionally.

Ambrosetti (2014) conceptualises mentoring as a fundamentally relational and reciprocal process in which professional learning emerges through dialogue, shared reflection, and negotiated roles within the practicum context. In this view, the quality of the mentor–mentee relationship underpins the effectiveness of professional growth, positioning mentoring as

more than supervisory oversight and instead as a collaborative developmental partnership. Extending this relational framing, Wang and Odell (2002) argue that mentoring practices are shaped through active engagement and informed preparation, while Tang and Choi (2005) emphasise the active construction and reconstruction of knowledge within mentoring interactions. Together, these perspectives align with social constructivist understandings of learning as socially mediated and contextually situated, where knowledge and pedagogical practice are co-constructed rather than transmitted. Such collaborative engagement creates conditions for reflective dialogue, negotiated meaning-making, and sustained professional learning, while also acknowledging that mentoring relationships are embedded within broader institutional and cultural contexts that shape how reciprocity and collaboration unfold in practice.

Non-hierarchical and collegial engagement

A central tenet of effective mentoring relationships is the principle of professional equality. Ewing (2021) argues that mentoring should be grounded in non-hierarchical, collegial relationships in which mentors and mentees perceive themselves as equals within a shared learning space. Such conditions foster trust, mutual respect, and psychological safety, key prerequisites for meaningful learning and reflective dialogue. Even when differences in age, experience, or professional status exist, non-hierarchical engagement enables mentors and mentees to learn from one another as co-learners rather than as experts and novices. Research in early childhood education (ECE) contexts supports this view; for example, Nolan and Molla (2018) found that both mentors and mentees valued the safe and collegial spaces created through mentoring relationships. However, despite strong theoretical commitments to professional parity, practical implementation often reveals persistent power differentials.

Drawing on critical theory, Mosley Wetzel et al. (2017) argue that power asymmetries are inherently embedded in mentoring relationships due to institutional roles, expectations, and evaluative responsibilities. Mentors frequently hold greater authority through their professional status, institutional knowledge, or responsibility for assessment, which can reinforce hierarchical dynamics, particularly in formal education settings. Bosman (2015) and Hudson and Hudson (2018) further note that power operates across multiple dimensions, including age, experience, and positional authority. While some scholars describe mentoring as non-hierarchical (Ambrosetti & Dekkers, 2010), such characterisations may understate the

subtle and often implicit ways in which power is exercised and negotiated. These critiques highlight the importance of critically examining how collegiality and equality are enacted in practice, rather than assuming their presence based on intent or rhetoric alone.

Reciprocal benefits for mentors and mentees

Reciprocity is frequently cited as a defining feature of successful mentoring relationships, with scholars emphasising the mutual benefits experienced by both mentors and mentees. Research suggests that mentees gain access to guidance, motivation, and skill development, while mentors benefit through professional satisfaction, new insights, and leadership development (Kaul & Mahalwal, 2021; McGee, 2019; Varney, 2009). This bidirectional exchange of knowledge and experience can deepen professional understanding and promote reflective practice. As Browne (2013) observes, mentoring creates opportunities for mutual learning, enabling both parties to gain new perspectives and pedagogical strategies. However, while reciprocity is widely endorsed as an ideal, its enactment in practice is often uneven.

Empirical studies indicate that mentoring benefits are not always distributed equally. Mentees typically receive more tangible outcomes, such as structured learning opportunities, direct guidance, and clearer pathways for career progression, whereas mentors often gain more intangible benefits, including personal fulfilment or enhanced leadership capacity (O'Brien & Christie, 2005; Rajuan et al., 2007). These mentor benefits, although meaningful, may not be formally recognised or rewarded within institutional systems. Moreover, the extent to which mentoring is genuinely reciprocal depends on factors such as mentors' willingness to engage reflexively, organisational hierarchies, and existing power relations (Hansman, 2003). Koballa et al. (2008) caution that the discourse of reciprocity can obscure enduring structural imbalances within mentoring systems. Consequently, while reciprocity remains a guiding principle, it is essential to critically examine how it is experienced and sustained across diverse mentoring contexts.

Factors underpinning an effective mentoring programme

Mentoring programmes are more likely to be effective when they are intentionally designed, supported by clear structures, and embedded within a broader professional learning environment. Research indicates that effective programmes rely on carefully selected mentors, adequate preparation and ongoing training, and alignment with school or system-

level goals (Patterson, 2013). Simply pairing novice teachers with experienced colleagues is insufficient, as not all effective teachers possess the pedagogical, interpersonal, and reflective capacities required for mentoring roles (Hobson et al., 2009; McDonald & Flint, 2011). Moir et al. (2009) and Thornton (2014) emphasise that mentor selection is a critical determinant of programme success, highlighting criteria such as demonstrated teaching expertise, strong communication skills, professional credibility, and sound curriculum knowledge. Without structured preparation and sustained professional learning, mentors may struggle to develop the relational and pedagogical dimensions central to effective mentoring.

Concerns about inadequate mentor preparation are echoed by Barrera et al. (2010), who caution that assigning mentoring responsibilities without sufficient training may inadvertently reinforce problematic practices or limit authentic professional learning. Langdon and Ward (2015) further argue that purposeful mentor induction is essential, particularly for educative mentoring approaches that emphasise reflective inquiry and shared learning. Evidence from Fyall et al. (2020) illustrates how structured, well-supported mentoring programmes in New Zealand primary schools contributed to positive professional outcomes. Their study demonstrates that mentoring is most effective when it is context-sensitive, aligned with school-wide priorities, and supported by leadership through protected time, access to professional networks, and ongoing development opportunities. These findings underscore that effective mentoring depends not only on individual mentor capability but also on enabling organisational conditions.

Beyond programme design and mentor preparation, mentoring has been widely recognised as a critical mechanism for enhancing teaching quality and fostering sustained professional growth. Research suggests that well-prepared mentors play a pivotal role in supporting improved student learning outcomes, positive classroom practices, and increased teacher motivation and engagement (Kent et al., 2012). Lumpkin (2011) highlights the contribution of mentoring to the development of collegial professional cultures characterised by trust, mutual respect, and reciprocal learning. Such relational foundations are essential for supporting individual development and for cultivating school environments where continuous professional learning is valued and normalised.

Mentoring programmes also function as an important strategy for building teacher capacity at scale, particularly for pre-service and early-career teachers. Studies by Desimone et al.

(2014), Koç (2012), and Stamopoulos (2012) demonstrate that high-quality mentoring can reduce early-career stress and burnout, key factors contributing to teacher attrition. In this sense, mentoring serves both developmental and retention-oriented purposes, supporting not only instructional improvement but also longer-term workforce stability.

Extending this perspective, Langdon et al. (2015) show that collaborative mentoring communities can foster critical reflection, deepen pedagogical knowledge, and support the co-construction of professional identities among mentors and mentees. Similarly, Fyall et al. (2020) report that schools integrating mentoring into whole-school professional learning cultures, rather than treating it as a standalone intervention, experienced stronger outcomes, including increased teacher confidence, pedagogical innovation, and a heightened sense of professional belonging. These findings point to the importance of systemic commitment, leadership engagement, and alignment with curriculum and professional learning priorities.

The studies cited in this section suggest that mentoring should be understood not merely as a dyadic activity but as a complex, context-dependent professional learning system that requires deliberate design, sustained support, and institutional alignment. These insights are particularly relevant to the mentoring initiative examined in this study, an externally facilitated, donor-supported context that differs from routine, government-led mentoring programmes. By examining how mentoring is enacted within this distinctive setting, my study seeks to illuminate the enabling conditions, relational dynamics, and systemic supports that contribute to the broader body of mentoring literature and offer practical implications. This is especially significant for policymakers, programme designers, and educational leaders seeking to strengthen teacher development efforts in complex and resource-constrained environments.

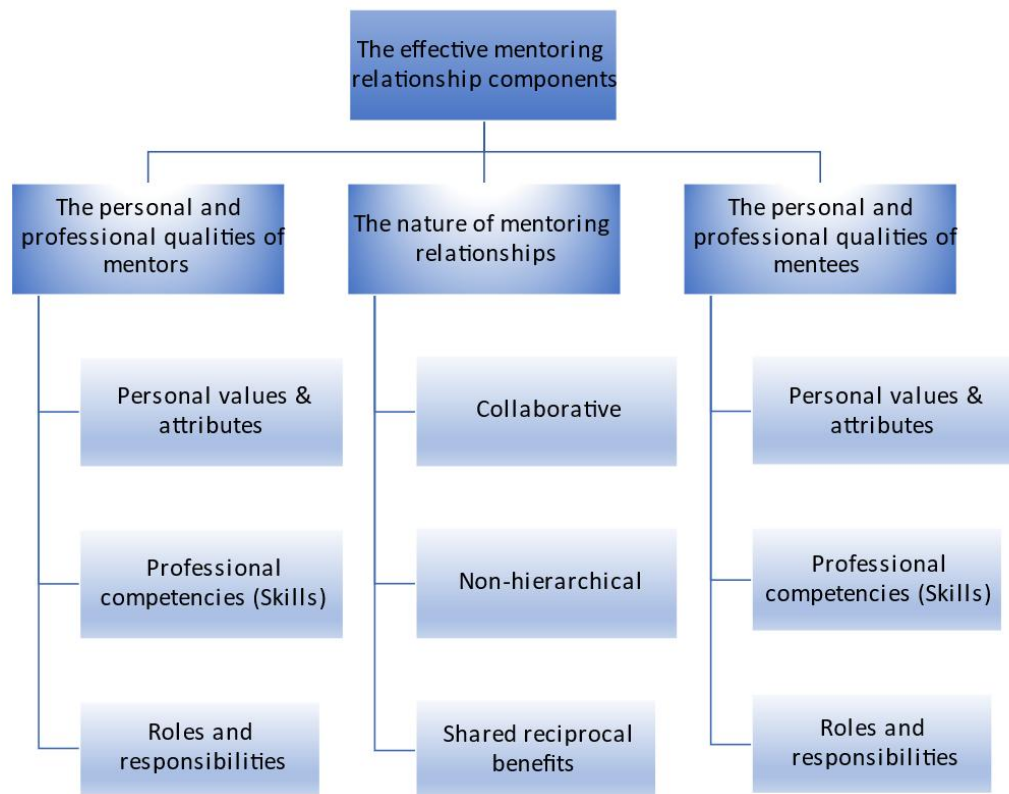
Perceived qualities of effective mentoring relationships

Establishing effective mentoring relationships requires careful attention to the key components, conditions, and attributes that enable such relationships to function productively. Drawing on the literature reviewed in this chapter, I developed a conceptual diagram to synthesise the core elements of effective mentoring relationships (see Figure 2). This diagram reflects an integrative understanding of mentoring as a relational and reciprocal

process shaped by the qualities of both mentors and mentees, as well as by the nature of their interactions.

Figure 2

Key Components Shaping Effective Mentoring Relationships



As illustrated in Figure 2, effective mentoring relationships comprise three interrelated domains: mentors' personal and professional qualities, mentees' personal and professional qualities, and the nature of the mentoring relationship itself. For mentors, effectiveness is underpinned by personal values and dispositions, professional competencies and skills, and clearly articulated roles and responsibilities. Similarly, mentees' engagement in mentoring is influenced by their personal attributes, professional skills, and clarity regarding their roles and expectations within the relationship. The nature of the mentoring relationship is conceptualised as collaborative and non-hierarchical, emphasising mutual respect, shared learning, and reciprocal benefit. Together, these domains highlight that effective mentoring is not solely dependent on individual attributes, but is co-constructed through balanced

interactions, continuous learning, and an equitable exchange of knowledge and support between mentors and mentees.

Personal and professional qualities of mentors

Mentors' personal and professional qualities play a critical role in shaping the effectiveness of mentoring relationships. This section examines the attributes, competencies, and responsibilities that enable mentors to support mentees' professional learning and development in meaningful ways.

Personal values and attributes of the mentor

The personal values and attributes of mentors significantly influence the quality and impact of mentoring relationships. Beyond professional expertise, the literature highlights the importance of interpersonal qualities that foster trust, respect, and psychological safety. Williamson et al. (2020) identify mutuality, trust, and empathy as foundational elements of effective mentoring, closely associated with positive developmental outcomes for mentees. Similarly, Ewing (2021) found that effective mentors of beginning teachers are approachable communicators who respect confidentiality and create nurturing spaces in which both personal and professional challenges can be discussed openly. Such qualities are particularly important for novice teachers navigating complex and often demanding professional environments.

The cultivation of trust and collegiality is repeatedly emphasised in mentoring research. Lumpkin (2011) argues that mentoring contributes to collegial professional cultures through relationships grounded in mutual respect, while Hunt (2018) highlights trust as a prerequisite for authentic dialogue and professional vulnerability. Eisen (2001) further contends that trust is strengthened when mentoring relationships actively seek to mitigate power imbalances. These insights align with findings by Ragin and Kram (2007), whose study of faculty, student mentoring, particularly among underrepresented groups, identified friendliness, mutual confidence, confidentiality, and reciprocity as central features of effective mentoring relationships, even in the absence of a formal definition of 'good mentoring.'

Expanding on these relational dimensions, Eisen (2001) outlines seven essential qualities of peer partnerships: trust, non-evaluative feedback, equality between partners, voluntary participation, sustained engagement, mutual goals and reciprocal learning, and authenticity.

These qualities reflect not only individual mentor characteristics but also the ethical and relational foundations necessary for meaningful professional learning. Collectively, they underscore that effective mentoring is as much a moral and relational practice as it is a technical or instructional one.

Despite the aspirational nature of these attributes, the literature also acknowledges the challenges of ensuring their presence in practice. Selecting mentors based on interpersonal values such as empathy, trustworthiness, and authenticity is inherently difficult, as these qualities are subjective and not easily assessed through conventional recruitment mechanisms. Consequently, many programmes rely on self-report or informal judgement, which may not adequately capture the depth or consistency of these attributes. Moreover, sustaining such values requires intentional support through mentor preparation, reflective practice, and ongoing professional learning. Overall, the literature points to the central importance of mentors' personal values and attributes in cultivating effective, supportive, and transformative mentoring relationships.

Professional competencies (skills) of the mentor

A persistent yet problematic assumption in mentoring practice is that experienced or senior teachers will automatically function as effective mentors. In many educational settings, mentor selection is based largely on years of service or professional seniority; however, research consistently shows that experience alone does not equate to mentoring expertise, particularly when mentoring aims to promote inquiry, reflection, and pedagogical development (Thornton, 2014). Langdon and Ward (2015) demonstrate that many mentors lack the specialised skills required for educative mentoring, where the focus extends beyond advice-giving to fostering professional learning. Allen and Eby (2003) demonstrate that mentoring effectiveness is strongly associated with relationship quality and learning engagement, highlighting the importance of mentors' relational competence and ability to facilitate meaningful professional development. Like other professional roles, Schwille (2008) argues that effective mentoring is a learned practice grounded in pedagogical knowledge, reflective capacity, and deliberate skill development.

Key mentoring competencies, such as providing constructive feedback, facilitating reflective dialogue, and co-constructing instructional strategies, are best developed through structured mentor preparation and sustained professional learning. Well-prepared mentors can positively

influence student achievement, classroom behaviour, and teacher engagement (Kent et al., 2012). These competencies extend beyond instructional expertise to include motivating, guiding, and scaffolding mentees' professional growth (Hobson et al., 2009). Chu (2014) emphasises the importance of relationship-building and domain expertise, while McGee (2019) frames mentoring as an inherently collaborative process involving cycles of planning, action, questioning, and reflection.

Mentoring competencies are not universal or prescriptive but are shaped by specific school contexts, community norms, and institutional conditions (Daloz, 1999; Langdon, 2014). As such, effective mentoring requires adaptive capacity, cultural responsiveness, and contextual awareness. Mentors' ability to tailor their approaches to the evolving needs of mentees is particularly important in diverse educational environments.

Research further cautions that assigning novice teachers to senior colleagues is insufficient, as not all accomplished teachers make effective mentors (Hobson et al., 2009; McDonald & Flint, 2011). Effective mentors combine pedagogical expertise with strong interpersonal skills, curriculum knowledge, and a commitment to ongoing professional learning (Moir et al., 2009; Thornton, 2014). Without comprehensive preparation and sustained support, mentors may struggle to enact educative mentoring practices. Barrera et al. (2010) and Langdon and Ward (2015), therefore, advocate for structured mentor induction processes that explicitly develop mentoring competencies aligned with inquiry-based and reflective approaches.

Despite broad recognition of the importance of mentor competence, several gaps persist. Selection criteria often prioritise teaching excellence and communication skills while overlooking qualities such as cultural responsiveness and mentoring disposition. Additionally, many programmes lack targeted training that supports the development of educative mentoring practices. Finally, effective mentoring depends on systemic supports, such as leadership engagement, collaborative cultures, and time allocation, which remain inconsistently available across settings. These challenges highlight the need for more coherent approaches to mentor development. This study further explores these issues by examining how mentors' professional competencies are enacted and developed within early childhood education settings in Kupang District, Indonesia.

Roles and responsibilities of the mentor

Although mentoring is widely recognised as important, the specific roles and responsibilities of mentors are not consistently defined across the literature (Ambrosetti & Dekkers, 2010). Mentors are commonly described as providers of support, feedback, and guidance, as well as facilitators of comfortable learning environments. Mentees similarly perceive mentors as sources of help, instruction, and advice. Beyond these functions, mentors are often positioned as role models, critical friends, and collegial partners who support professional growth.

Research illustrates considerable variation in mentor roles across contexts. Carver and Feiman-Nemser (2009) show that mentor responsibilities differ across U.S. states, with mentors serving as instructional supports, reflective coaches, emotional supporters, or needs assessors depending on local policies. Such variation highlights the contextual nature of mentoring roles and the absence of a universally accepted framework.

Berk et al. (2005) identify ten core mentor responsibilities, including commitment, guidance, constructive critique, encouragement of mentee ideas, and recognition of achievements. However, they also note a lack of empirical evidence linking these responsibilities to programme effectiveness. This gap points to the need for further research on how mentor roles are enacted in practice and how they contribute to mentoring outcomes.

While the literature broadly agrees that mentors provide emotional and professional support, the lack of specificity regarding mentor responsibilities remains a challenge (Ambrosetti & Dekkers, 2010). The diversity of mentoring roles suggests that practices are often shaped by local needs rather than standardised expectations, complicating efforts to ensure consistency and quality across programmes. Other research emphasises the need for mentors to be adaptable and responsive to evolving educational demands. Langdon and Ward (2015) and Schwille (2008) argue that mentoring roles are increasingly dynamic and context-dependent, requiring ongoing professional learning. In Indonesia, for example, early childhood mentors must navigate cultural, social, and pedagogical complexities, often bridging traditional practices and contemporary approaches. Assessing mentoring effectiveness also remains challenging. While trust, reciprocity, and mutual respect are widely recognised as essential (Ragins & Kram, 2007), clear frameworks for evaluating mentoring quality are limited, particularly in diverse educational contexts (Hunt, 2018). This underscores the need for more robust conceptual and evaluative tools.

In conclusion, although mentoring roles commonly encompass emotional support, feedback, and guidance, the literature reveals considerable variation and ambiguity in how these roles are defined and enacted. The evolving nature of mentoring further demands flexibility and adaptability from mentors. In this regard, the present study examines the roles and responsibilities of mentors in early childhood education in Kupang District, Indonesia, exploring how these roles are defined, implemented, and experienced in practice. By situating mentoring within a culturally and institutionally specific context, the study contributes to broader understandings of mentor competence and effectiveness in diverse educational settings.

Personal and professional qualities of mentees

In the context of mentoring relationships, mentees' personal and professional qualities play a crucial role in determining the success and effectiveness of the mentoring process. These qualities encompass personal values and attributes, professional competencies and skills, and clearly defined roles and responsibilities. This section will explore the personal values and attributes of mentees, the professional competencies and skills required for their success in the mentoring relationship, and the roles and responsibilities they must undertake for the mentoring process to be effective. The importance of these factors cannot be overstated, as they significantly influence the dynamics of mentoring and the overall success of the mentee's professional growth. By examining these qualities, my study aims to highlight the critical factors that contribute to the mentee's active engagement and development within the mentoring framework.

Personal values and attributes of the mentees

Effective mentoring relationships in education depend significantly on mentees' personal and professional qualities, particularly focusing on their personal values and attributes. Mentees' personal values, such as openness to learning, motivation, and a positive attitude towards self-improvement, play a crucial role in mentoring. Research has shown that mentees who demonstrate qualities such as openness, self-reflection, and a strong sense of commitment to their development tend to benefit more from the mentoring relationship (Turban & Lee, 2007). These attributes ensure that mentees are receptive to guidance and constructive feedback, fostering a productive and enriching learning environment.

Additionally, mentees who exhibit self-awareness and a commitment to personal growth are better positioned to leverage mentoring opportunities for professional development (Ghosh, 2013; Hudson, 2013). For example, mentees who demonstrate intrinsic motivation are more likely to set clear goals and actively engage in the process of learning and development, leading to more successful outcomes in the mentoring relationship (Kram, 1988). Research by Noe (1988) further supports this, highlighting that mentees who are motivated by career advancement and personal growth are more likely to seek out and benefit from mentoring.

Furthermore, mentees' personal values and attributes include qualities such as resilience, adaptability, and the ability to engage in reflective practice. Resilient mentees can navigate challenges and setbacks effectively, maintaining their focus on long-term goals, which is essential for their professional development. DuBois et al. (2002) (DuBois et al., 2002) found that mentee resilience helps them persist and succeed despite difficulties, indicating that resilience is a key component of mentee success. In the same vein, Luthans et al. (2006) argue that resilience contributes to emotional stability, which enables mentees to manage stress and setbacks, essential for maintaining a positive and productive learning attitude. Adaptability, too, is crucial, as it allows mentees to adjust to the dynamics of the mentoring relationship, the mentoring process, and the changing demands of their professional roles (Shamir & Eilam, 2005).

Research shows that reflective practice enables mentees to critically analyse their experiences, drawing valuable lessons that contribute to continuous improvement (Ambrosetti & Dekkers, 2010; Lankau & Scandura, 2002). By reflecting on their actions, mentees gain deeper insights into their strengths and areas for growth, allowing them to refine their skills and improve their approach to challenges. In this regard, Bandura's (1997) social cognitive theory suggests that self-reflection enhances self-regulation, empowering mentees to take control of their learning journey. These attributes, resilience, adaptability, and reflective practice, enhance the mentoring relationship and support mentees in becoming self-directed, lifelong learners.

Research highlights resilience and adaptability as critical personal attributes for mentees, particularly in navigating challenges and transitions within mentoring relationships (Luthans et al., 2006; Shamir & Eilam, 2005). However, studies also emphasise that the development of these attributes is neither linear nor universal, but highly context-dependent. Sosik and

Godshalk (2000) demonstrate that mentees who engage in supportive and trusting relationships with mentors are more likely to develop resilience when facing professional and personal challenges. In addition, organisational culture and the availability of institutional resources play a significant role in shaping mentees' capacity to adapt to new learning environments. Further research suggests that resilience and adaptability should be understood within a broader framework of personal development that includes self-efficacy, emotional intelligence, and motivation (Luthans et al., 2006; Shamir & Eilam, 2005). These interrelated factors collectively strengthen mentees' ability to benefit from mentoring relationships and to sustain long-term professional growth.

In conclusion, the personal values and attributes of mentees play a critical role in shaping the quality and effectiveness of mentoring relationships. Attributes such as openness to learning, intrinsic motivation, resilience, adaptability, and reflective practice enable mentees to engage meaningfully with mentors and to translate guidance into professional growth. However, these attributes should not be understood as fixed individual traits. Rather, they develop through the dynamic interaction between the mentee, the mentoring relationship, and the broader organisational and cultural context. A holistic understanding of mentee development, one that recognises the interplay of personal, relational, and contextual factors, is therefore essential for designing mentoring practices that effectively support sustained learning and long-term professional development.

Professional competencies (skills) of the mentees

Allen et al. (2004) emphasise that mentees' professional competencies are central to the effectiveness of mentoring relationships, particularly through active participation, effective communication, and openness to feedback. These competencies shape how mentees engage with mentors and pursue developmental goals. Similarly, Griffiths et al. (2010) argue that effective communication fosters a collaborative mentoring environment that supports mutual learning and professional growth. To maximise the benefits of mentoring, mentees must develop core competencies such as clear communication, critical thinking, and the ability to apply feedback constructively (Griffiths et al., 2010).

In the context of novice teachers, Hobson et al. (2009) posit that beginning teachers face significant classroom complexity, and mentoring plays a crucial role in helping them navigate pedagogical, emotional, and professional challenges. Hobson et al. (2009) argue that the

effectiveness of mentoring for beginning teachers depends not only on mentor quality but also on mentees' willingness to engage reflectively, articulate professional challenges, and actively participate in dialogue about their practice. Thus, effective participation in mentoring relationships requires a range of professional competencies, including reflective capacity (Smith, 2001), self-regulation (Zimmerman, 2002), and professional agency (Wang & Odell, 2002).

Zimmerman (2002) argues that individuals who engage in self-regulated learning, through systematic analysis of their performance, goal-setting, and strategic adjustment, demonstrate stronger developmental progress. Analytical competencies enable mentees to recognise patterns in their professional practice, make informed decisions, and implement targeted improvements. Through this reflective and adaptive process, mentees consolidate existing strengths while addressing areas requiring further development. Supporting this view, Eby et al. (2020) further identify analytical and problem-solving skills as essential competencies that enhance both individual performance and the overall success of mentoring relationships. These skills allow mentees to assess challenges systematically and develop innovative responses while still drawing on mentors' expertise.

Schön (2001) positions self-reflection as a core professional skill, enabling mentees to critically examine their experiences and learning processes. Through reflective practice, mentees gain insight into what is effective and what requires adjustment in their professional work. Research by Lee et al. (2020) demonstrates that mentoring relationships that actively encourage reflection contribute to deeper learning and personal growth among mentees. Complementing this, Boud (2013) conceptualises self-assessment as a critical mechanism for professional learning, enabling individuals to identify strengths, recognise areas for development, and establish meaningful learning goals.

The literature indicates that mentees' professional competencies, including communication, critical thinking, problem-solving, reflective practice, and commitment to continuous learning, play a significant role in shaping the effectiveness of mentoring relationships. These competencies enable mentees to engage actively in developmental dialogue, interpret and apply feedback, and translate mentoring insights into improved professional practice. A proactive orientation toward learning further strengthens this process by fostering sustained engagement and adaptive growth. Collectively, these attributes position mentees to derive

deeper developmental benefits from mentoring and to advance their professional trajectories in a purposeful and self-directed manner.

Roles and responsibilities of the mentees

In mentoring relationships, mentees are expected to assume an active role in their professional development. Research suggests that mentees who proactively manage the mentoring relationship, articulate developmental goals, and seek feedback are more likely to experience meaningful growth (Allen & Eby, 2003). Similarly, Zimmerman (2002) argues that self-regulated learners who set clear goals and monitor their progress take greater responsibility for their development. Such an approach positions mentees as active contributors rather than passive recipients, which is essential for the effectiveness of the mentoring process.

Ewing (2021) highlights the importance of mentees clearly articulating their expectations and actively seeking support and resources within mentoring relationships. These behaviours help establish trust and collaboration between mentors and mentees, strengthening the relational foundation necessary for effective mentoring. In addition, mentees are responsible for managing their time effectively, including preparing for mentoring sessions, completing agreed tasks, and engaging in reflective learning activities. Higgins and Kram (2001) argue that individuals actively construct and manage their developmental relationships, suggesting that mentees' initiative and commitment are central to maximising the developmental benefits of mentoring.

Wanberg et al. (2006) highlight that protégé characteristics, including role clarity and active engagement in communication, significantly predict positive mentoring outcomes. This includes behaviours such as seeking feedback, providing updates on progress, and discussing challenges encountered in practice. Mentees who clearly understand their roles and participate actively in mentoring interactions are more likely to experience meaningful developmental gains. Supporting this view, Eby et al. (2013) stress the importance of continuous self-reflection, through which mentees can identify strengths, recognise areas for improvement, and refine their developmental goals over time.

Johnson and Ridley (2008) caution that mentees may face challenges in fulfilling these responsibilities, particularly in articulating needs or raising concerns due to power

imbalances, cultural norms, or fear of negative evaluation. These challenges underscore the relational nature of mentoring and the importance of a supportive environment. Similarly, Hobson (2016) emphasises that mentors play a crucial role in creating psychologically safe and non-judgemental spaces that enable open dialogue. Effective mentoring therefore depends on shared responsibility, with mentors fostering conditions that support mentees' active and confident engagement.

Collectively, the literature indicates that mentee roles and responsibilities are multifaceted and central to the effectiveness of mentoring relationships. Rather than passive recipients of guidance, mentees are positioned as active agents who demonstrate initiative, engage in open communication, manage professional commitments, and participate in sustained reflective practice. At the same time, mentoring is conceptualised as a relational and collaborative process in which responsibility is distributed between mentors and mentees. Building on these insights, this study focuses on Early Childhood Education (ECE) teachers as mentees, examining how their personal and professional qualities shape their engagement in mentoring relationships. In doing so, the research seeks to contribute to a more nuanced understanding of mentoring within the ECE context and to inform the development of contextually grounded and sustainable mentoring practices.

Mentoring in Early Childhood Education (ECE) settings

Onchwari and Keengwe (2010) conceptualise mentoring in Early Childhood Education (ECE) as a structured, collaborative, and sustained professional relationship that supports early childhood educators' pedagogical practices and reflective capacities. Building on this view, Whitebook and Bellm (2014) emphasise that mentoring also plays a critical role in strengthening educators' professional identity, particularly within early learning settings where professional recognition is often limited.

Research further highlights that mentoring in ECE differs from general teacher mentoring due to its strong emphasis on age-appropriate pedagogy, play-based learning, child development principles, and the socio-emotional demands of working with young children. For instance, Fenech et al. (2010) highlight the importance of mentoring that is responsive to the relational and ethical dimensions of early childhood practice. Similarly, Nolan and Molla (2018) demonstrate that effective mentoring in ECE must be grounded in the contextual realities of

early childhood settings, aligning professional learning with the relational and developmental nature of early childhood teaching.

In addition to pedagogical considerations, mentoring in ECE also responds to structural and contextual challenges within early learning environments. Urban et al. (2011) point out that disparities in educator qualifications and professional status shape the way mentoring is accessed and experienced, while Sims et al. (2018) underline how contextual diversity and limited access to ongoing professional support further complicate mentoring practices. Collectively, these studies suggest that mentoring in ECE must be sensitive to both developmental and contextual specificities, requiring a nuanced, relational, and context-responsive approach to professional learning and growth.

In the subsequent sections, mentoring practices in Early Childhood Education are examined across contexts in the Global North and the Global South, with attention to key similarities, differences, and contextual influences that shape mentoring within diverse educational landscapes. The terms Global North and Global South describe a framework for understanding the economic and political disparities between countries. The Global North generally includes the U.S., Canada, Europe, Japan, South Korea, Taiwan, Australia, New Zealand, and Israel, while the Global South includes Latin America, Africa, the Middle East (excluding Israel), and Asia and Oceania (excluding the aforementioned countries). Rather than representing a simple geographic or hemispheric division, the framework reflects historically produced relationships of dominance and marginalisation shaped by colonial legacies, uneven development, and global power structures (Dados & Connell, 2012).

The terms Global North and Global South are used in this review as broad and historically situated categories rather than as homogeneous or binary groupings. Educational systems within and across these categories vary considerably in their policy environments, institutional arrangements, resources, histories, and sociocultural conditions. The distinction is therefore used heuristically to situate patterns in the existing literature, while recognising that mentoring practices and knowledge do not follow a simple North–South divide. Importantly, evidence from the Global South is considered not merely in relation to gaps or differences from established models, but also as a source of locally situated knowledge that can extend and challenge dominant understandings of mentoring.

Mentoring in ECE: Evidence from Global North Contexts.

OECD (2019a) reports that many ECE systems within member countries are embedded within formal teacher education pathways and supported by established regulatory and policy frameworks. In countries such as New Zealand, the United Kingdom, the United States, and Canada, initial teacher education is typically complemented by structured induction processes and expectations for ongoing professional development, although the scope and mandatory nature of these supports vary across contexts.

Within these systems, mentoring has increasingly been positioned as a key mechanism for supporting novice teachers and sustaining continuous professional learning. Whitebook and Bellm (2014) highlight the role of mentoring in strengthening professional competence and enhancing workforce stability in early childhood settings. Similarly, Urban et al. (2011) situate mentoring within broader efforts to professionalise the ECE workforce and strengthen competence systems across diverse contexts. Collectively, this body of literature indicates that mentoring frameworks in many OECD contexts are embedded within systemic strategies aimed at improving teacher induction, retention, and long-term professional growth.

Education Council New Zealand (2015) outlines induction and mentoring as a structured process required for provisionally certificated teachers seeking full certification, grounded in clearly articulated professional standards and defined expectations for both mentors and mentees. This policy framework positions mentoring as an integral component of teacher certification and professional accountability. A comparable approach is evident in England, where statutory induction for Early Career Teachers is aligned with the Teachers' Standards and the Early Career Framework, and is supported by structured mentoring arrangements operating within statutory guidance issued by the Department for Education (Department for Education, 2021). Together, these policy frameworks underscore the importance of mentor preparation, institutional support, and the alignment of mentoring with broader educational reform agendas, a dynamic further analysed by Aspfors and Fransson (2015), who conceptualise mentoring as a system-level professional learning strategy.

Australia demonstrates a structured and evolving approach to mentoring in early childhood education. National frameworks such as the *Early Years Learning Framework* and the *National Quality Standard* emphasise reflective practice and professional learning

communities (Australian Children's Education and Care Quality Authority, 2020), creating a supportive policy environment for mentoring. The formal embedding of mentoring within state-based induction and accreditation frameworks, such as those implemented in New South Wales (NSW), highlights its role in fostering collegial and supportive professional relationships, particularly in rural and diverse contexts, as reflected in the accreditation requirements for Proficient Teacher status in the NSW Department of Education (2021). Nolan (2017) further illustrates how mentoring in Australia is linked to career progression and improved professional practice through inquiry, collaborative planning, and leadership development. Additionally, Fleet and Kitson (2009) highlight Australia's emphasis on pedagogical leadership and culturally responsive mentoring, particularly in Indigenous and multilingual settings, reflecting the inclusive and context-sensitive nature of its mentoring practices.

Empirical research further demonstrates the positive impact of mentoring on both mentors and mentees. In Australia, Grima-Farrell (2015) evaluated a pilot workplace mentoring programme across eleven early childhood education settings and found that mentees experienced increased self-efficacy, confidence, and professional competence, particularly in curriculum-specific areas such as music education. Importantly, the mentoring process also fostered a culture of professional dialogue, encouraging reciprocal reflection and mutual learning between mentors and mentees. These findings reinforce the conceptualisation of mentoring as a relational and dialogic process rather than a one-directional transfer of expertise.

The evolution of mentoring practices alongside digital innovation has also been documented in the literature. Clarke (2018) explored the use of Facebook as an informal mentoring platform among early childhood educators in Australia and found that social media groups functioned as dynamic spaces for networking, knowledge sharing, and peer support. Educators frequently assumed mentoring roles by offering targeted advice and participating in professional discussions, illustrating how online communities of practice can extend mentoring beyond formal institutional structures. Such findings highlight the growing significance of flexible and technology-mediated mentoring modalities in responding to educators' diverse professional needs.

In North America, mentoring is commonly situated within broader professional development initiatives led by state, provincial, or district-level bodies. Feiman-Nemser (2001) conceptualises effective mentoring as a structured and sustained process that supports novice teachers through guided learning and professional socialisation. Similarly, research on induction and mentoring in the United States and Canada emphasises reflective practice, collaborative inquiry, and relational support as central to professional growth (e.g., Ingersoll & Strong, 2011). Together, this body of work positions mentoring as an integral component of teacher development systems across North American contexts.

From a leadership perspective, Thornton (2014) conducted a qualitative case study in the United States that examined the professional development of mentors working with novice teachers. Addressing a gap in the literature on mentors' learning, the study identified key conditions that supported leadership development, including rigorous mentor selection, prior experience, structured preparation, ongoing professional development, and visible support from school leadership. At the same time, Thornton identified systemic constraints, particularly the absence of collaborative organisational cultures and limited support from principals and administrators, which hindered the effectiveness of mentoring initiatives.

Additional large-scale evidence from North America reinforces the importance of mentoring during the early stages of teachers' careers. McDonald and Flint (2011) emphasised the critical role of both emotional and instructional support during the first two years of teaching. In their comprehensive review, Ingersoll and Strong (2011) concluded that participation in mentoring programmes was associated with higher job satisfaction, improved instructional practices, increased teacher retention, and positive outcomes for children, including gains in student achievement. These findings position mentoring as a key strategy for strengthening workforce stability and teaching quality in early childhood education.

Collectively, studies from Australia, New Zealand, the United States, and Canada illustrate a range of mentoring approaches shaped by different professional, policy, and institutional contexts. Across these settings, mentoring has been used to support novice educators, professional learning, leadership development, and collaborative practice, although its organisation and implementation vary considerably

These studies share several conceptual similarities with the present doctoral research, particularly in understanding mentoring as a collaborative, reflective, and relational process that supports professional learning and development. However, the contexts in which mentoring is organised differ considerably. In the studies reviewed above, mentoring is shaped by particular policy arrangements, professional standards, institutional structures, and resource conditions. The present study examines mentoring within rural ECE settings in Kupang, Indonesia, where professional support is shaped by locally specific institutional, community, cultural, and resource conditions. Rather than contrasting more and less developed systems, this study considers how different contextual conditions shape what mentoring becomes and how it is experienced. This perspective also highlights the value of locally situated knowledge in extending understandings of mentoring beyond formally institutionalised models.

Mentoring in ECE: Evidence from Global South contexts.

UNESCO (2015b) and Mincu (2015) highlight substantial variation in teacher professional development systems across low- and middle-income countries, reflecting differences in policy frameworks, institutional capacity, and socio-cultural contexts. These disparities shape the ways in which mentoring and professional support are conceptualised and implemented within early childhood education settings.

Mentoring arrangements vary considerably across low- and middle-income country contexts, reflecting differences in policy frameworks, institutional capacity, workforce preparation, and socio-cultural conditions. In some settings, mentoring has been incorporated into broader teacher professional development strategies, while in others it may be organised through local initiatives, externally supported programmes, or less formal professional relationships. These variations suggest that mentoring cannot be understood through a single model of formalisation, but needs to be considered in relation to the particular systems and contexts in which it is enacted.

Rao et al. (2015) highlight persistent workforce capacity constraints in low-resource Asian contexts, including limited access to sustained professional development and uneven institutional support structures. These systemic challenges shape how mentoring and other forms of professional support are introduced and sustained. Rao et al. (2019) demonstrate

substantial cross-national variation in early childhood development systems across the East Asia-Pacific region, reflecting differences in policy infrastructure, workforce preparation, and resource allocation. Such structural diversity shapes the conditions under which mentoring and professional support initiatives are introduced and sustained. These conditions, however, do not necessarily imply an absence of professional learning or mentoring. Rather, they shape the forms, relationships, and resources through which mentoring can be organised and sustained.

Despite these systemic challenges, evidence points to adaptive and innovative mentoring practices across Global South contexts. In many low- and middle-income countries, mentoring and coaching are frequently introduced through externally funded quality improvement initiatives. Burns and Lawrie (2015) highlight the expansion of school-based mentoring models across Sub-Saharan Africa, while Popova et al. (2016) identify coaching as one of the most effective forms of teacher professional development in resource-constrained settings. However, research on reform implementation cautions that sustainability remains a persistent challenge, particularly where initiatives rely on donor funding or operate without strong government ownership (O'Sullivan, 2002; Vavrus & Bartlett, 2013). These dynamics underscore the importance of embedding mentoring within broader systemic and institutional frameworks.

The literature suggests that mentoring in ECE across diverse Global South contexts is shaped by the interaction of policy arrangements, resource conditions, community relationships, external initiatives, and practitioner agency. These contexts demonstrate not only structural constraints but also locally developed responses, including culturally responsive, relationship-based, and resource-conscious approaches to mentoring. Such variation provides important insights into how mentoring may be organised and experienced beyond highly formalised institutional settings.

Building on this broader characterisation of mentoring in the Global South, a growing body of empirical research has begun to document how these dynamics play out in low- and middle-income country contexts. While much of the mentoring literature has historically focused on Western and high-income settings, recent studies increasingly recognise teacher development as a critical lever for improving early childhood education quality in the Global South (Bett, 2016). This shift reflects wider policy recognition that investments in teachers

are central to improving learning outcomes, particularly where pre-service preparation and systemic support remain limited.

Empirical evidence from Sub-Saharan Africa highlights the structural and personal constraints shaping mentoring and professional development in the Ghanaian context examined by Schwartz et al. (2019). ECE teachers in the Greater Accra Region identified significant gaps in supervision, peer mentoring, and administrative support. Teachers reported difficulties accessing professional development due to time constraints, while those experiencing poverty or moderate to severe depression were less likely to participate. These findings underscore that mentoring effectiveness in Sub-Saharan Africa contexts is closely intertwined with broader socio-economic and well-being factors, extending beyond technical pedagogical support alone.

Similar challenges have been documented in Kenya, where many early years teachers enter the profession with limited pre-service training and receive minimal ongoing support. Drawing on national reports, UNESCO (2015b) and Bett (2016) highlight persistent gaps in pedagogical skills and subject knowledge among ECE teachers, particularly in low-income settings. These conditions reinforce the need for mentoring approaches that are responsive to the specific institutional and professional conditions in these settings.

More practice-oriented mentoring studies illustrate how locally enacted mentoring can foster professional growth despite systemic constraints. In Tanzania, Collin (2019) conducted a qualitative study of six mentor teachers supporting peers in implementing learner-centred education. The study identified key mentoring strategies, including modelling equitable power relations, fostering reflective practice, and supporting ongoing professional development through regular school visits. Importantly, the findings emphasised the relational and sustained nature of mentoring, highlighting how consistent mentor presence enabled feedback, modelling, and encouragement to translate into professional change.

Cross-national mentoring initiatives further illuminate both opportunities and tensions in externally supported programmes. Bennett and Burrridge (2018) analysed a mentoring partnership between Australian mentors and Timorese early years teachers aimed at strengthening play-based pedagogy. Their findings showed that trust, mutual respect, and relational closeness were central to programme success, even across cultural boundaries. At

the same time, the authors questioned the long-term sustainability and contextual relevance of externally driven mentoring models, pointing to the need for locally embedded alternatives that draw on community-based expertise.

Complementing this work, De Araujo (2018) examined the implementation of a child-centred curriculum in Timor-Leste and explored how ECE teachers interpreted and enacted curriculum reforms in their classrooms. Teachers expressed positive views of the curriculum but highlighted the need for sustained mentoring, observation, and coaching to support meaningful implementation. Notably, De Araujo's use of Bronfenbrenner's ecological systems theory illuminated how teachers' professional learning was shaped by interacting influences across classroom, institutional, community, and policy levels, a conceptual approach that closely aligns with the theoretical framing of the present study.

Across these studies, mentoring in ECE is characterised by diversity, contextual complexity, and adaptation to different institutional and community conditions. While externally initiated programmes have contributed important resources and innovations, the literature also demonstrates the significance of locally rooted, culturally responsive, and relationship-based approaches that draw on teachers' and communities' knowledge and agency. While donor-funded and externally initiated programmes have contributed important innovations, the literature increasingly highlights the value of mentoring approaches that are locally rooted, culturally responsive, and attentive to teachers' lived realities. Across contexts, mentoring emerges not merely as a technical intervention but as a relational, systemic, and context-dependent process shaped by social, economic, and institutional conditions.

These empirical insights closely align with the focus of this doctoral research. Similar to the studies reviewed above, this research conceptualises mentoring as a relational and context-dependent form of professional learning. It also examines how mentoring is shaped by institutional, community, cultural, and resource conditions, while recognising teachers' and mentors' agency in responding to these conditions. The shared application of Bronfenbrenner's ecological theory, particularly in De Araujo's (2018) study and the present research, further reinforces the value of examining mentoring as a multi-layered process situated within complex sociocultural and institutional environments.

ECE Teacher professional development in the South-East Asian context

Across Southeast Asia, early childhood education has increasingly been positioned as a strategic policy priority, reflecting regional commitments to equity, human capital development, and quality improvement in line with global frameworks. Within the Education 2030 Framework for Action, UNESCO (2016) identifies ECE as a foundational investment in lifelong learning and as a key mechanism for addressing structural disparities in access, quality, and learning outcomes. human capital development in the region, particularly in addressing persistent inequalities in educational outcomes. OECD (2018) identifies process quality, particularly the quality of staff-child interactions, as the primary driver of children's development and learning, highlighting workforce competence and participation in professional development as key levers for strengthening effectiveness. The World Bank (Popova et al., 2018) identifies teacher quality as the most influential school-level determinant of student learning and argues that sustained coaching and mentoring are among the most effective forms of professional development.

OECD (2019) conceptualises teacher learning as a continuum, highlighting structured induction and mentoring as key components of early professional development that support sustained improvement. OECD (2019b) reports that while participation in professional development is widespread across systems, access to structured induction and formal mentoring for novice teachers remains uneven. The findings further indicate that collaborative and practice-based professional development activities are perceived by teachers as the most impactful for improving instructional quality and professional efficacy. However, professional development systems across Southeast Asia are shaped by diverse cultural traditions, economic conditions, governance arrangements, and levels of institutional capacity (e.g., UNESCO, 2016; World Bank, 2017).

At the regional level, Southeast Asian countries share a common policy aspiration to strengthen ECE teacher competence through training, standards, and continuous professional learning, although the degree of systematisation varies considerably. Comparative policy analyses suggest that while some countries have developed more coherent sector-wide education strategies, many low- and middle-income contexts continue to rely on fragmented, short-term, or externally funded initiatives to support teacher professional development

(UNESCO, 2015a). This variation has resulted in a heterogeneous professional development landscape, reflecting differing stages of system development and national education priorities.

Regional analyses further illustrate the uneven institutionalisation of early childhood professional development across Southeast Asia. Tan (2016) documents substantial disparities in teacher qualifications, funding allocation, and access to professional learning opportunities across five Asian countries, highlighting persistent rural–urban divides and policy–practice gaps. In response to such variation, the ASEAN ECCDE Quality Standards establish a regional baseline for quality, emphasising legislated professional qualifications, structured training pathways, and capacity building for early childhood practitioners (ASEAN Secretariat, 2017). However, the framework also recognises the need for contextualisation, reflecting differences in governance capacity, resource availability, and stages of sectoral development across member states. While the ASEAN ECCDE framework establishes a regional baseline for quality, it simultaneously recognises the dependence of several Member States on external technical and financial support, including from UNICEF, ARNEC, and Save the Children, to operationalise standards and build institutional capacity (ASEAN Secretariat, 2017). This reliance highlights ongoing challenges related to sustainability, domestic financing, and long-term system ownership.

Among ASEAN member states, Singapore is frequently cited as an example of a well-established and coherent system for ECE teacher professional development. In Singapore, the Early Childhood Development Agency (ECDA) (2022) provides a structured continuum of professional learning opportunities, including mentoring, leadership development, and specialised training in early literacy, play-based pedagogy, and child development (Selamat, 2021; Sukani & Abd Karim, 2018; Vijayadevar, 2020). These initiatives are closely aligned with the Nurturing Early Learners Curriculum Framework, which positions continuous professional learning and reflective practice as essential to ensuring quality and consistency in ECE provision (Early Childhood Development Agency (ECDA), 2022). Within this system, mentoring is embedded as part of a broader professional growth pathway rather than functioning as a standalone intervention.

Malaysia and Thailand also demonstrate relatively strong policy commitments to ECE teacher professional development, albeit with differing levels of implementation consistency.

In Malaysia, the Malaysian Quality Standards for Early Childhood Education provide a formal framework regulating teacher qualifications, professional development, and curriculum implementation (Malaysian Qualification Agency (MQA), 2014). Thailand has similarly introduced policies to strengthen ECE teacher capacity through in-service training and mentoring initiatives (National Early Childhood Development Policy Committee (NECDPC), 2019).

In contrast, several ASEAN countries continue to face significant challenges in strengthening ECE teacher professional development and mentoring systems. Empirical studies from Indonesia, Vietnam, and Cambodia highlight persistent disparities in access to training and ongoing professional support, particularly for teachers working in rural, remote, and underserved communities (OECD/Asian Development Bank, 2015; Rahman, 2019; World Bank, 2020). Although formal, system-wide mentoring mechanisms for ECE teacher development remain limited in Indonesia, Vietnam, and Cambodia, empirical literature shows emerging but uneven mentoring efforts that are not yet institutionalised. In Indonesia, the Early Childhood Education Mentoring Programme, illustrates from the Kupang programme attempts to pair experienced mentors with teachers to support the implementation of training in practice, but evaluations note that such mentoring remains localised and is not widely available, particularly in rural or remote areas (Wilf Malcolm Institute of Educational Research, 2020). In Vietnam, early childhood education sector reviews describe structured pre-service and in-service training provisions, yet sustained mentoring and follow-up support after training are rarely part of professional development systems, leaving many teachers dependent on episodic workshops rather than continuous pedagogical guidance (Boyd & Dang Phuong, 2017). In Cambodia, analyses of teacher professional development models indicate that while cluster meetings, in-service training, and scattered mentoring or community-of-practice approaches have been trialled, these efforts have had limited impact on classroom practices and are not embedded within a systematic national framework (Bo et al., 2019). These patterns suggest that although mentoring practices are present in pockets, they are not yet institutionalised as sustained, systemic components of national ECE professional development systems, and structural challenges such as limited infrastructure and connectivity further constrain their reach and effectiveness.

The Philippines represents a transitional case in the region, where mentoring has been formally embedded within national teacher standards as part of a career-stage framework. The Department of Education's Philippine Professional Standards for Teachers (DepEd Order No. 42, s. 2017) (Department of Education (DepEd), 2017) explicitly positions mentoring as a professional responsibility of Highly Proficient and Distinguished Teachers, who are expected to provide support and mentoring to colleagues as part of school-based professional development (Department of Education (DepEd), 2017). Within this framework, mentoring is linked to collaborative reflection, feedback, and professional learning across domains such as assessment, curriculum planning, and professional engagement. While this policy architecture reflects a clear institutional recognition of mentoring as a strategy to strengthen teacher quality within a decentralised education system, implementation remains uneven. Variability in mentor capacity, school leadership support, and local resource availability, particularly in geographically isolated and disadvantaged areas, continues to shape the consistency and depth of mentoring experiences across schools.

Overall, ECE teacher professional development in Southeast Asia is characterised by significant variation in policy coherence, institutional capacity, and access to sustained mentoring and professional support. While Singapore, Malaysia, and Thailand demonstrate more institutionalised and structured systems, and the Philippines reflects a transitional model where mentoring is formally embedded within national professional standards but unevenly implemented, countries such as Indonesia, Cambodia, and Vietnam continue to face structural, geographic, and resource-related constraints that limit equitable access to continuous professional learning. Regional collaboration through ASEAN mechanisms and engagement with international partners provides important platforms for shared learning and capacity strengthening; however, sustained progress depends on the deeper institutionalisation of mentoring within national systems, supported by stable financing, leadership capacity, and local ownership. This diverse regional landscape underscores the importance of examining mentoring not merely as a discrete intervention, but as a system-embedded and context-responsive strategy for strengthening ECE teacher quality across varied Southeast Asian contexts, a focus central to this doctoral research.

ECE teacher professional development in Indonesia

Teacher professional development in Indonesia has gained increasing policy and scholarly attention as part of broader efforts to improve instructional quality within a decentralised education system. Although teacher professional development has received increasing scholarly attention in Indonesia, much of the empirical research has been situated outside early childhood education. Studies have examined community-based PD initiatives (Harjanto et al., 2018), digital professional learning networks (Patahuddin & Logan, 2019), and online communities of practice (Sari, 2012), primarily within primary or secondary school contexts. Consequently, the specific dynamics, constraints, and professional learning needs of ECE teachers remain comparatively underexplored.

Despite significant expansion in ECE provision, the system, particularly in rural and remote areas, has faced persistent challenges, including shortages of qualified teachers and uneven access to professional support. In response, the Ministry of Education and Culture (MoEC) introduced the *Diklat Berjenjang*, a nationally coordinated, tiered model of continuing professional development for ECE teachers (ECE Teacher Directorate of MoEC, 2022). This reform aligns with UNESCO's (2016) broader call for strengthening teacher professional development systems under the Education 2030 Framework. The *Diklat Berjenjang* programme is structured to address different stages of teachers' professional experience, ranging from entry-level educators to more experienced practitioners (ECE Teacher Directorate of MoEC, 2022). It combines formal training components with workplace-based learning, including peer mentoring, classroom observation, and participation in professional learning communities. By integrating both in-person workshops and online learning modalities, the programme offers flexible access to professional development opportunities, which is particularly important for teachers in geographically dispersed areas. This blended approach reflects international evidence on effective teacher professional development, which emphasises continuity, practice-based learning, and opportunities for collaboration (Popova et al., 2018).

From a policy perspective, the *Diklat Berjenjang* initiative reflects Indonesia's broader efforts to standardise and scale teacher training systems. The World Bank (2019) highlights Indonesia's commitment to strengthening teacher quality through structured CPD pathways as a promising strategy for achieving long-term improvements in educational quality. By

investing in teacher training infrastructure and embedding professional development within national systems, Indonesia seeks to enhance the capacity of its ECE workforce while also contributing to global efforts to promote equitable access to quality education, regardless of geographic location or socioeconomic background (World Bank, 2020).

World Bank (2020) documents that structured practice-based professional support models in Indonesia remain limited beyond specific pilot programmes. One of the most prominent national initiatives was the Early Childhood Education and Development (ECED) Frontline Pilot Programme, implemented by the Ministry of Education with World Bank support between 2016 and 2019 across 25 districts in 11 provinces. The pilot aimed to strengthen local government capacity to support ECED services in poor rural communities and to improve the delivery of the Diklat Berjenjang programme. This approach sought to address weaknesses in traditional cascade training models, which were often characterised by large-group delivery, limited practical application, and minimal follow-up support.

In addition to enhanced group-based professional development, the pilot introduced a small-scale coaching component in two districts (World Bank, 2020a). In this model, ECED principals were trained to serve as coaches, providing classroom-based feedback and ongoing support to educators. While the programme explicitly used the term *coaching*, its design reflected core features commonly associated with mentoring in the international literature, including sustained interaction, practice-based observation, reflective dialogue, and contextualised problem-solving. More than 15,000 community ECED educators participated in the broader professional development package, which emphasised inter-village coordination and follow-up activities (World Bank, 2020a).

However, the evaluation identified important limitations. Approximately one-third of participating educators did not demonstrate measurable improvement in teaching practice. The coaching pilot itself remained limited to two districts and was resource intensive. Findings indicated that participants with a clearer understanding of the coaching model adhered more closely to its reflective processes, while many facilitators found it easier to provide direct solutions than to facilitate reflective inquiry. Although coaching was perceived as beneficial for strengthening communication and professional relationships, willingness to continue in coaching roles was mixed. The World Bank (2020a) concluded that such practice-

based support models would require simplification and stronger institutional integration to enhance effectiveness and scalability.

Beyond nationally coordinated training initiatives, continuing professional development in Indonesia has also been supported through community-based learning models, particularly in rural and underserved areas. Hyson and Roesli (2017) describe a pilot initiative that established learning communities for village ECE teachers, aiming to strengthen pedagogical practice through peer collaboration, reflective dialogue, and locally grounded problem-solving. Rather than relying solely on workshop-based delivery, this approach emphasised ongoing interaction, mutual support, and context-responsive learning. Such initiatives illustrate emerging efforts to complement formal CPD structures with sustained, practice-based professional support, particularly in decentralised and resource-constrained settings.

Research conducted within Indonesian ECE contexts highlights both the promise and the structural tensions associated with professional development reform. Yulindrasari and Ujjianti's (2018) examination of kindergarten teachers' experiences in Buleleng District, Bali Province, demonstrates how teacher reform policies, framed within a neoliberal discourse of professionalisation, introduce a regulatory gaze that reshapes teachers' work through standardisation, accountability, and performance-based evaluation. Although certification and professional allowance are intended to enhance teacher status, many teachers experience the reform as administratively burdensome and misaligned with the relational and care-centred nature of early childhood practice, generating tensions between state-defined professionalism and everyday pedagogical realities. Hasan et al. (2013) further situate these challenges within broader conditions of poverty, inequality, and uneven service provision, demonstrating how disparities in household resources, parental education, and community infrastructure shape children's developmental outcomes and access to quality ECE services (Hasan et al., 2013). These studies suggest that while professionalisation reforms offer important pathways for strengthening ECE quality, their impact is contingent upon contextual responsiveness, adequate institutional and resource support, and sustained government commitment to addressing structural inequities.

Overall, the Indonesian experience illustrates both the potential and the limitations of large-scale CPD and mentoring initiatives in diverse and decentralised education systems. While national programmes such as Diklat Berjenjang provide an important foundation for

improving teacher quality, their effectiveness depends heavily on local capacity, leadership, and contextual adaptation. These dynamics highlight the need to examine how mentoring operates within CPD frameworks in practice, particularly in rural and resource-constrained settings, an issue that is central to the focus of this doctoral research.

Mentoring in the Indonesian context

This section reviews empirical and policy-oriented literature on mentoring in early childhood education (ECE) in Indonesia. It does not include the Early Childhood Education Teacher Mentoring Programme implemented in Kupang District as part of the present doctoral study; that programme and its accompanying mentoring module (Wilf Malcolm Institute of Educational Research, 2019) are treated as the focal case of this research rather than as literature to be reviewed. The Kupang module conceptualises mentoring as a relational, reflective, and practice-based professional learning process grounded in classroom observation, dialogic feedback, and identity development (Wilf Malcolm Institute of Educational Research, 2019). In contrast, the broader Indonesian literature reveals a more varied and fragmented picture of how mentoring is interpreted and enacted within ECE settings.

Across Indonesian scholarship, mentoring in ECE is frequently positioned as an instrument for improving teacher competence, particularly in contexts where formal qualifications and access to professional development remain uneven (Rahayu, 2020; Silalahi & Sahara, 2022). Several studies document structured mentoring initiatives designed to strengthen pedagogical and professional competencies, often focusing on curriculum implementation, lesson planning, and classroom management (Mopangga, 2021; Rahayu, 2020). While findings consistently report improvements in teachers' ability to prepare learning plans, implement age-appropriate activities, and adopt more child-centred approaches (Rahayu, 2020), mentoring is commonly framed as a technical intervention aimed at upgrading teacher skills rather than as an ongoing professional learning relationship. This competency-driven orientation reflects broader reform discourses in Indonesian education, where professionalisation is closely tied to standards, documentation, and compliance (Silalahi & Sahara, 2022).

At the same time, mentoring in Indonesia is frequently embedded within supervisory and institutional structures. Several studies conflate mentoring with academic supervision conducted by school principals or district supervisors (Fitriani & Ilyas, 2022; Hartini, 2017). In these cases, mentoring functions as a mechanism for monitoring curriculum implementation, ensuring alignment with national standards, and improving administrative performance (Fitriani & Ilyas, 2022). Although supervision-based mentoring may provide structured guidance and coordination, it often retains hierarchical characteristics. The relational dynamics of mentoring, mutual trust, dialogic exchange, and co-construction of knowledge receive limited analytical attention. As a result, mentoring is sometimes reduced to an extension of bureaucratic oversight rather than conceptualised as a professional partnership (Hartini, 2017). This tendency reveals an underlying tension in the Indonesian context between mentoring as developmental support and mentoring as evaluative control.

Localised mentoring initiatives, particularly in rural and under-resourced regions, offer a somewhat different emphasis. In these contexts, mentoring emerges as a pragmatic response to contextual constraints, including teachers' limited qualifications, isolation, and lack of access to formal training (Fitriani & Ilyas, 2022; Rahayu, 2020). Peer-based mentoring, collaborative lesson planning, and reflective discussion groups are reported as mechanisms for fostering collegial support and practical problem-solving (Mopangga, 2021). These locally driven models suggest that mentoring can function as a relational space for shared learning when it is embedded in teachers' everyday practice. However, most studies remain small-scale and descriptive, with limited theoretical framing (Hartini, 2017; Mopangga, 2021). While positive outcomes are reported, improved engagement with children, increased confidence, and better lesson preparation (Rahayu, 2020), the processes through which mentoring shapes professional identity, pedagogical reasoning, or long-term practice transformation are rarely examined in depth.

More recent literature has also begun to acknowledge mentoring beyond instructional technique, particularly in relation to teacher well-being and emotional resilience (Fitriani & Ilyas, 2022). In marginalised settings where teachers experience heavy workloads, low remuneration, and high stress, mentoring is described as providing psychosocial support and professional affirmation. Nonetheless, empirical exploration of mentoring as an identity-forming or emotionally sustaining practice remains limited, as emotional support is often

mentioned as a by-product rather than analysed as a core component of mentoring relationships (Fitriani & Ilyas, 2022).

Digital and network-based mentoring models further complicate the landscape. Mobile-based platforms, online communities of practice, and hybrid mentoring arrangements are increasingly promoted as solutions for geographically dispersed ECE systems (Mopangga, 2021; Silalahi & Sahara, 2022). These approaches enhance accessibility and peer connectivity, particularly in remote areas. Yet the literature tends to emphasise logistical reach rather than relational depth. Questions about how trust, reflective dialogue, and sustained professional growth are cultivated in digital environments remain underexplored.

Despite providing valuable contextual insights, much of the existing research on mentoring in Indonesian ECE remains limited in scope and analytical depth. Many studies are small-scale case studies conducted within single institutions or districts, often undertaken as master's theses or practitioner-based inquiries, with limited longitudinal evidence or comparative analysis (e.g., Mopangga, 2021; Rahayu, 2020). Several are published in nationally indexed journals rather than international peer-reviewed outlets, which constrains their visibility within broader scholarly debates (Fitriani et al., 2020; Hartini, 2017). In addition, a significant portion of the literature is published in Bahasa Indonesia, limiting its accessibility to international audiences and restricting cross-contextual theoretical engagement. Methodologically, mentoring is frequently described in instrumental or programmatic terms, with limited theoretical framing and minimal exploration of relational dynamics, power, or identity formation. Consequently, there remains a need for a theoretically grounded, contextually embedded, and analytically rigorous examination of mentoring practices in Indonesian ECE, one that moves beyond programme description toward a deeper understanding of how mentoring operates as a professional learning process over time. It is within this gap that the present study is positioned.

Across the existing literature, mentoring in ECE in Indonesia is presented as an expanding yet unevenly theorised component of professional development. It is predominantly framed as technical skill enhancement, supervisory oversight, institutional quality improvement, or short-term coaching intervention (Fitriani & Ilyas, 2022; Hartini, 2017; Mopangga, 2021; Silalahi & Sahara, 2022). Less developed is a coherent understanding of mentoring as a sustained, relational, and contextually embedded professional learning process. The

predominance of small-scale, competency-oriented studies suggests that mentoring is often treated instrumentally rather than analytically. Addressing this gap requires a deeper examination of how mentoring is enacted, experienced, and shaped within specific local contexts, an inquiry that the present doctoral study seeks to undertake.

Situating educative mentoring in ECE settings: A critical review and ecological framing

This section critically reviews the literature on mentoring in education to identify key conceptual, empirical, and contextual gaps relevant to this study. While mentoring has been widely promoted as a strategy for professional development, existing scholarship remains dominated by Global North perspectives and often privileges programme structures and outcomes over the situated enactment of mentoring within specific institutional, cultural, and policy environments. Such approaches provide limited insight into how mentoring relationships are shaped by systemic conditions, power relations, and socio-cultural expectations, particularly in Early Childhood Education (ECE) and Global South contexts. By synthesising global, ECE-specific, and Indonesian literature, this section establishes the need for a contextualised and ecologically informed examination of educative mentoring.

While mentoring in education has generated a substantial and growing body of scholarship, significant gaps remain, particularly when examined through a Bioecological perspective. Much of the literature continues to privilege Eurocentric and Global North frameworks, often marginalising how institutional norms, socio-cultural values, and policy environments shape mentoring practices in diverse contexts (Achinstein & Athanases, 2006). Consequently, the complex interactions between mentoring relationships and broader systemic conditions remain underexplored, especially in low-resource and non-Western settings. Existing studies frequently prioritise programme structures and measurable outcomes, with less attention to how mentoring is enacted within specific organisational and cultural ecologies. There is also limited insight into how mentors and mentees conceptualise their roles and relationships in relation to power, professional identity, and institutional expectations (Hobson & Malderez, 2013; Mullen, 2017).

Although recent scholarship has advanced the concept of educative mentoring as a reciprocal, inquiry-oriented, and transformative process, little is known about how such approaches are

operationalised beyond Global North contexts. Studies examining mentoring practices, such as co-planning, reflective dialogue, and classroom-based coaching, rarely situate these practices within broader ecological frameworks that account for policy mandates, leadership structures, mentor preparation, and socio-cultural influences. Moreover, the literature tends to foreground mentee development, with comparatively limited exploration of how mentoring shapes mentors' own professional learning and identity. Barriers and enablers within mentoring systems, including resource constraints, institutional cultures, professional hierarchies, and digital access, also remain insufficiently theorised and empirically examined.

Mentoring in ECE warrants particular attention due to the relational, emotionally responsive, and context-sensitive nature of early learning environments (Stamopoulos, 2012). However, research on mentoring in ECE, especially within Global South contexts, remains sparse. The predominance of Global North studies limits understanding of how mentoring is enacted in culturally diverse, under-resourced, and structurally constrained settings, where institutional arrangements, teacher preparation pathways, and socio-political dynamics differ markedly. As a result, the relational and collaborative dimensions of mentoring, including shared reflection, inquiry-based dialogue, and mutual professional growth, are insufficiently examined in contexts shaped by complex ecological conditions. Responding to these gaps, this study investigates how ECE mentors and mentees in Kupang, Indonesia, conceptualise mentoring relationships, engage in professional learning practices, and navigate systemic enablers and constraints. By applying Bronfenbrenner's (2005) Bioecological Theory, the study foregrounds how institutional policies, organisational cultures, and socio-cultural expectations shape mentoring processes and experiences, an approach that remains relatively rare in Global South mentoring research.

Within Indonesia, mentoring research has predominantly focused on formal schooling in urban or relatively well-resourced contexts, with comparatively limited attention to early childhood education (ECE) and rural settings. Existing studies frequently depict mentoring as a hierarchical transfer of knowledge from senior to novice teachers, offering limited scope for reciprocal, inquiry-based, or context-responsive approaches such as peer mentoring and collaborative professional learning (Fitriani & Ilyas, 2022; Rahayu, 2020). Moreover, insufficient attention has been given to how mentoring relationships are shaped by systemic conditions including school leadership practices, policy enactment, mentor preparation, and

accountability structures, despite their significant influence on how mentoring is experienced and sustained (Hartini, 2017; Silalahi & Sahara, 2022).

Socio-cultural dimensions also remain under-examined. Norms related to hierarchy, gendered expectations, and collective professional identities are likely to shape mentoring interactions and power relations, yet these dynamics receive limited analytical treatment within the Indonesian mentoring literature. Although emerging studies suggest that collaborative or hybrid mentoring arrangements may offer more flexible support across locations (Silalahi & Sahara, 2022), the predominance of face-to-face, competency-oriented mentoring models exposes structural limitations related to access, continuity, and scalability. These constraints were further amplified during the COVID-19 pandemic when conventional mentoring arrangements were disrupted, and alternatives were not systematically examined.

This study addresses these gaps by examining how mentors and mentees in rural Indonesian ECE settings engage in practices such as co-planning, classroom observation, and reflective dialogue, and how institutional, cultural, and technological conditions mediate these practices. In doing so, the study contributes empirically grounded insights into the local enactment of educative mentoring and advances theoretical understanding by applying an ecological lens to mentoring in ECE within a Global South context.

The reviewed literature reveals a persistent gap in understanding mentoring as a relational and ecological practice situated within complex systems of policy, culture, institutional norms, and resource conditions. The limited attention to ECE settings, rural and under-resourced contexts, reciprocal mentor–mentee learning, and the influence of socio-cultural and technological factors underscores the inadequacy of decontextualised mentoring models. In response, this study adopts Bronfenbrenner’s (2005) Bioecological Theory to examine how educative mentoring is conceptualised and enacted by ECE mentors and mentees in rural Indonesia. By foregrounding lived experiences and systemic influences, the study seeks to extend mentoring scholarship beyond dominant paradigms and contribute a theoretically grounded, context-sensitive understanding of professional learning in ECE. The following chapter, therefore, elaborates Bronfenbrenner’s Bioecological Theory as the guiding theoretical framework for analysing mentoring relationships and practices within their multi-layered educational context.

CHAPTER III: THEORETICAL FRAMEWORK

Introduction

This chapter outlines the theoretical and conceptual foundations underpinning the study. Its purpose is to situate the research within a coherent framework capable of supporting analysis of the complex and relational dynamics of mentoring in Early Childhood Education (ECE). With a particular emphasis on Bronfenbrenner's ecological (1979) and bioecological (2005) systems theory, this chapter is positioned within a constructivist–interpretive paradigm. It draws on a social constructivist view of knowledge, recognising that meaning is co-constructed within specific cultural, relational, and institutional contexts. Bronfenbrenner's theory is especially relevant for examining ECE mentoring experiences, as it provides a comprehensive lens for understanding the dynamic interplay over time between individuals and their multiple, nested environments.

The chapter is organised into four main sections: an overview of the research paradigm; a discussion of Bronfenbrenner's theory across its three developmental phases; an examination of applications of the theory in ECE research contexts, particularly in mentoring and policy studies; and an explanation of how the Process–Person–Context–Time (PPCT) model is applied in this study, including attention to proximal processes, contextual systems (from micro to macro), and the chronosystem.

Research paradigm

Constructivist-interpretive paradigm

Researchers approach inquiry through a set of philosophical assumptions, collectively referred to as a research paradigm, which shape understandings of reality and guide methodological decisions. These assumptions encompass ontology (the nature of reality), epistemology (the nature of knowledge), axiology (the role of values), methodology (the logic of inquiry), and rhetoric (modes of representation) (Denzin & Lincoln, 2018). Together, these orientations form a foundational belief system that informs the entire research process. As Guba and Lincoln (1994) explain, a paradigm is a “basic belief system or worldview that guides the investigator, not only in choices of method but also in ontologically and epistemologically fundamental ways” (p. 105).

This study adopts a constructivist–interpretive paradigm within a qualitative research tradition to explore how early childhood educators, mentors, local government officials, and development partners make sense of their mentoring experiences in Kupang District, Indonesia. Constructivist and interpretive paradigms are grounded in the assumption that reality is socially constructed, multiple, and shaped through individuals’ interactions within their sociocultural contexts (Lincoln et al., 2011; Schwandt, 1994). Rather than seeking an objective or universal truth, research within this paradigm aims to understand the meanings participants ascribe to their lived experiences (Creswell & Poth, 2016). To clarify the epistemological orientation guiding this study, it is first necessary to articulate the ontological assumptions on which it rests.

Ontology: Social constructivism

From an ontological perspective, this study is grounded in social constructivism, which assumes that reality is multiple, subjective, socially constructed through human interaction and shaped by cultural and historical contexts (Creswell & Creswell, 2017). This stance challenges the notion of a single, fixed, objective reality, instead emphasising that understandings of the world are contingent upon individual experiences, social environments, and interpretive frameworks (Cohen et al., 2018; Thompson, 2013).

Under a social constructivist ontology, multiple realities coexist, each constructed through lived experience and social interaction (Creswell & Creswell, 2017). As Gergen (2018) contends, knowledge is not a mirror of an objective world but emerges through historically and culturally situated relational processes; what counts as ‘reality’ is sustained through dialogue, social negotiation, and shared meaning-making practices. From this perspective, meanings are not located within individuals alone but are co-constructed through interaction, language, and participation in social practices.

This ontological orientation is particularly relevant to the present study. The teacher and mentor participants are based in Kupang District, a culturally diverse area in East Nusa Tenggara. While connected through a broader Timorese identity, participants may come from different local groups, such as Helong-Semau, Dawan, or Amarasi (El Boru, 2013; Luitnan, 2017). These cultural distinctions may shape how participants interpret mentoring relationships, professional learning, and institutional expectations. As a researcher,

maintaining critical awareness of these contextual influences is essential for understanding the diversity and complexity of meaning-making processes within the study.

Epistemology: Interpretivism

Aligned with its social constructivist ontological stance, this study adopts an interpretive epistemology. Interpretivism holds that knowledge is not discovered but interpreted, and that understanding is co-constructed through dialogue, reflection, and interaction between the researcher and participants (Blaikie, 2007; Creswell & Poth, 2016).

In contrast to positivist epistemologies that seek objective and generalisable truths, interpretive inquiry focuses on subjective experience and the meanings individuals assign to their social worlds. From this perspective, the researcher does not occupy a detached observational role but actively engages in the process of meaning-making. As Klenke et al. (2008) note, “there is no single unitary reality apart from our perceptions” (p. 15).

This epistemological orientation is consistent with the work of Anney (2013) and Sarantakos (2005), who emphasise that interpretive research seeks to illuminate participants’ lived experiences and the local meanings embedded within specific contexts. Accordingly, this study does not aim to generate universal claims about mentoring but to capture contextually situated understandings of how mentoring relationships are experienced and interpreted within participants’ professional and cultural realities.

Axiology: The role of values and reflexivity

Consistent with its ontological and epistemological foundations, this study recognises that research is inherently value-laden. Within a constructivist–interpretive paradigm, researchers’ worldviews, cultural backgrounds, and professional experiences shape all stages of the research process, from the framing of research questions to data interpretation (Creswell & Creswell, 2017).

Accordingly, this study adopts a reflexive stance that acknowledges the influence of my positionality as an Indonesian researcher with professional experience in national early childhood development initiatives. Reflexivity involves ongoing critical self-awareness, not only of potential biases but also of the values and assumptions brought into the research

setting. It requires openness to negotiating meaning with participants and representing findings as co-constructed narratives shaped through dialogic engagement.

The axiological position underpinning this study also emphasises ethical responsibility in representing participants' perspectives with integrity and sensitivity to cultural differences. In a socioculturally diverse context such as Kupang, reflexivity is essential to ensure that participants' voices are authentically represented rather than subsumed under the researcher's interpretive lens.

The constructivist–interpretive orientation of this study is further informed by foundational theories of human development, particularly the work of Piaget, Vygotsky, and Bronfenbrenner (De Araujo, 2018; Schunk & Mullen, 2013). Among these, Bronfenbrenner's ecological and bioecological systems theory (1979, 2005) is especially influential in shaping the study's conceptual framework.

Bronfenbrenner's theory provides a powerful lens for examining the five nested systems, microsystem, mesosystem, exosystem, macrosystem, and chronosystem that shape educators' and mentors' professional experiences. His work aligns with the view that human development is context-dependent and that individuals are active agents whose growth emerges through dynamic interactions with their environments over time.

By incorporating an ecological perspective, this study situates mentoring relationships within broader institutional, cultural, and policy structures, enabling a multidimensional understanding of how professional learning is shaped and sustained. This theoretical framework complements the constructivist–interpretive stance of the study by offering a means to examine how meaning is constructed, negotiated, and enacted within the mentoring ecology of early childhood education. The following section elaborates on Bronfenbrenner's contributions in greater detail and explains how his bioecological theory informs both the design and interpretation of this research.

Bronfenbrenner's ecological and bioecological theory

Urie Bronfenbrenner (1917-2005), a Russian-born American psychologist, is widely recognised for developing the ecological theory of human development. At the heart of Bronfenbrenner's theory is the notion that the child is an active, developing organism,

constantly interacting with and reshaping their environment. In turn, the environment reciprocally shapes the individual, highlighting a dynamic, bidirectional process.

Bronfenbrenner later recognised that developmental trajectories vary across place and time, and that public policy plays a critical role in shaping human development by influencing the living conditions and opportunities available to individuals.

Bronfenbrenner's theory evolved across three phases (Rosa & Tudge, 2013). In Phase I (1973–1979), formalised in *The Ecology of Human Development* (1979), he introduced the conceptual framework of nested environmental systems (microsystem, mesosystem, exosystem, and macrosystem) to explain the contextual influences on development. Phase II (1980–1993) expanded the model to acknowledge the chronosystem and the role of individual characteristics, such as biological dispositions and personal agency, in shaping developmental outcomes. In Phase III (1993–2006), Bronfenbrenner introduced the Process–Person–Context–Time (PPCT) model, positioning proximal processes as the primary engines of development and explicitly integrating both nature and nurture. This marked the shift in terminology from the 'ecological' to the more integrative 'bioecological' model.

Given the evolution of Bronfenbrenner's theory, scholars must clearly articulate which version they are applying in their research. Ashiabi and O'Neal (2015) emphasised that researchers should specify (a) whether their work draws from Bronfenbrenner's earlier ecological theory or the later bioecological model, and (b) which elements of the model are operationalised in their study. To provide conceptual clarity and theoretical alignment, the next section outlines each phase in greater detail.

Bronfenbrenner Phase I (1973-1979)

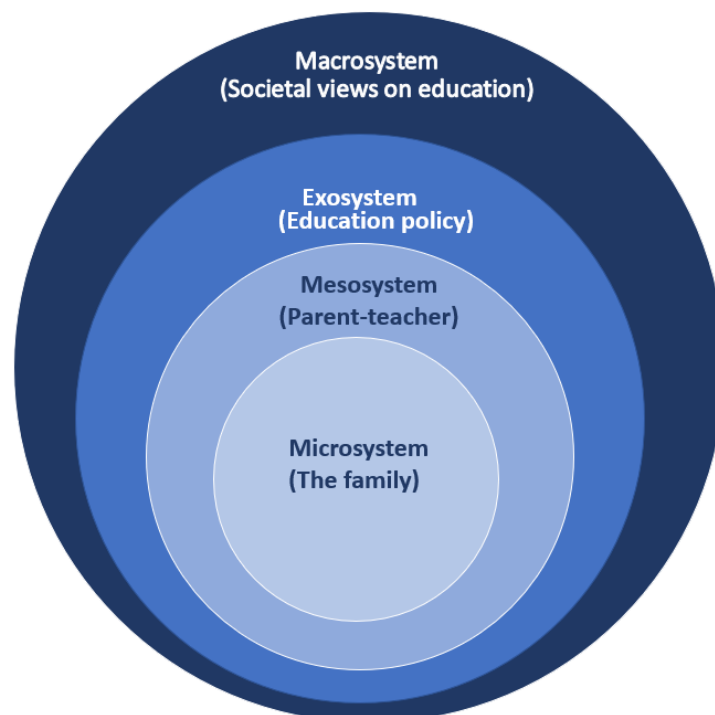
Bronfenbrenner's earlier conceptualisation of human development, what he termed ecological theory, was formalised in his seminal work *The Ecology of Human Development* (1979). He defined the ecology of human development as:

The scientific study of the progressive, mutual accommodation between an active, growing human being and the changing properties of the immediate settings in which the developing person lives, as this process is affected by relations between these settings, and by the larger contexts in which the settings are embedded. (Bronfenbrenner, 1979, p 21)

The first phase of Bronfenbrenner's work was primarily concerned with describing the environmental contexts that influence human development. These contexts, conceptualised as nested systems, are arranged in terms of their proximity to the developing individual (Bronfenbrenner & Evans, 2000). Greene and Moane (2000) explain that these systems range from direct, immediate environments to broader societal influences that are more distal but still impactful. According to Shelton (2019), Bronfenbrenner's 1979 model presented a scientific framework that elevated the role of the environment from background context to a dynamic system shaping development. Figure 3 illustrates the nested structure of Bronfenbrenner's (1979) ecological model, showing the layered environmental influences on a child's development. From the most immediate (microsystem, e.g., family), mesosystem (e.g., parent-teacher relationship), exosystem (e.g., education policy) to the broadest societal context - macrosystem (e.g., societal views on education).

Figure 3

The Nested Structure of Bronfenbrenner's Ecological Model



Note: Adapted from Parent recommendations to support physical activity for families with young children: Results of interviews in deprived and affluent communities in South Wales (United Kingdom), by Khanom, et al., 2019, *Health Expectations*, 23(2), p. 285. Licensed under CC BY 4.0

The Microsystem

Bronfenbrenner (1979) defines the microsystem as “a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics” (p. 22). The microsystem is the most immediate and influential context in which development occurs, involving direct interactions between the individual and significant others. These settings may include the family home, early childhood centres, playgrounds, or workplaces, contexts where reciprocal, face-to-face interactions occur (Bronfenbrenner, 1975, 1979). While the family typically constitutes the primary microsystem in early childhood, other settings, such as early education environments and care institutions, also serve as essential sites of developmental influence (Hayes et al., 2017).

The Mesosystem

The mesosystem refers to the interconnections among two or more microsystems in which the developing person actively participates, such as, for a child, the relations among home, school, and neighbourhood peer group; for an adult, among family, work, and social life (Bronfenbrenner, 1979). In this way, the mesosystem represents a system of microsystems, where the relationships and consistency among these environments shape development. For instance, alignment and communication between home and school environments are crucial; two-way communication and collaborative decision-making between parents and educators can enhance children’s developmental outcomes. Bronfenbrenner and Ceci (1994) emphasised that such mesosystemic interactions often have a greater influence on developmental outcomes than more distal factors such as socioeconomic status or race.

The Exosystem

Bronfenbrenner (1979) defined the exosystem as “One or more settings that do not involve the developing person as an active participant, but in which events occur that affect, or are affected by, what happens in the setting containing the developing person” (p. 25). In other words, the exosystem includes environments in which the child is not directly involved but still exerts influence on their development through their impact on the child’s immediate relationships. A typical example is a parent’s workplace: increased job stress, long hours, or lack of work-life balance may indirectly influence a child through the parent’s emotional

availability and quality of interaction at home. This level captures the broader social settings' indirect yet consequential effect on development.

In ECE contexts, exosystem factors can include national policies, district-level administrative decisions, or the availability of community services. For instance, curriculum reforms or funding policies may affect how teachers plan and implement learning activities, thereby influencing children's developmental experiences (Hayes et al., 2017). Although the child is not actively present in these contexts, the ripple effects are often felt in their daily lives.

The Macrosystem

The macrosystem refers to:

Consistencies in the form and content of lower-order systems (micro-, meso-, and exo-) that exist, or could exist, at the level of the subculture or the culture as a whole, along with any belief systems or ideology underlying such consistencies. (Bronfenbrenner, 1979, p. 9)

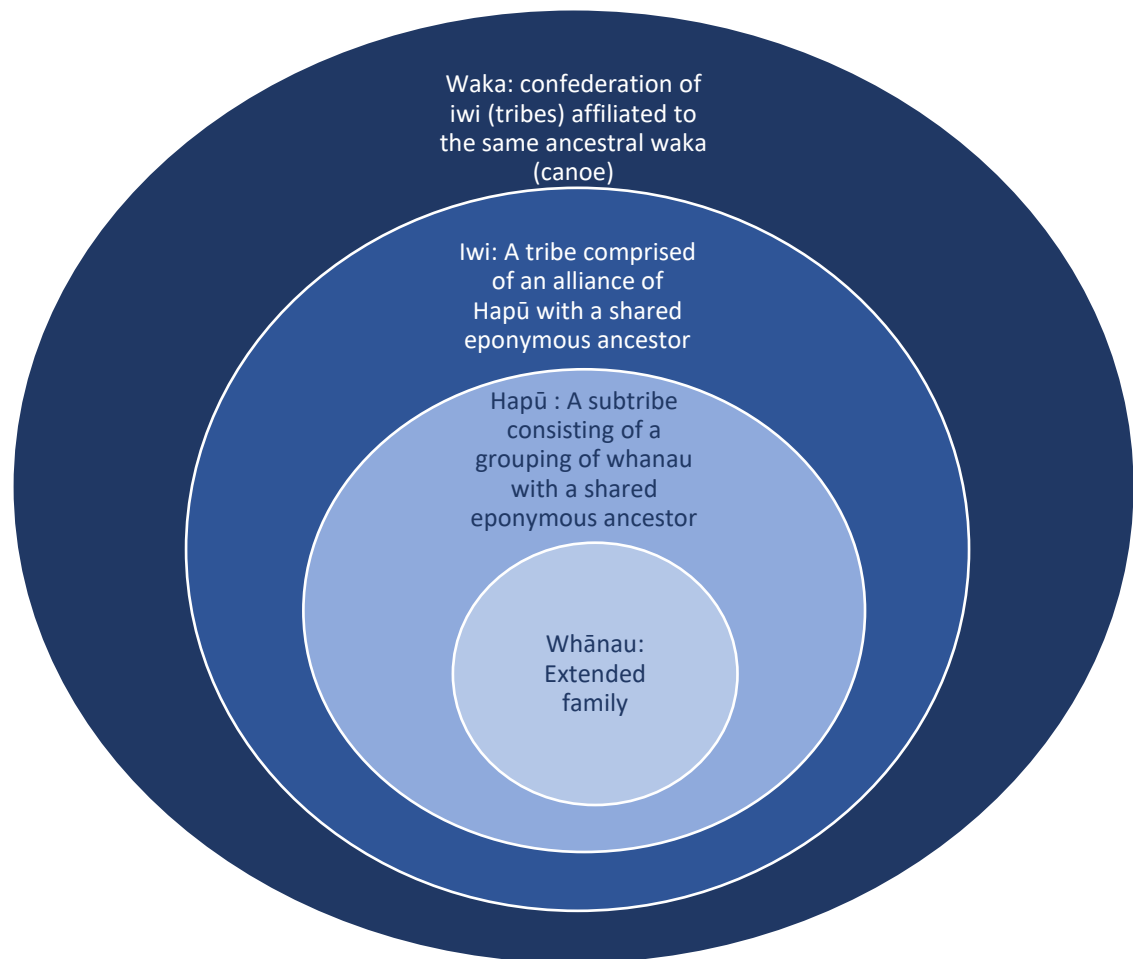
This outermost system encompasses cultural values, societal norms, political ideologies, economic systems, and belief structures that shape the functioning of all the inner systems. While its influence may appear abstract or remote, the macrosystem plays a significant role in framing how individuals perceive and interact within the world. For example, prevailing societal attitudes toward gender roles, parenting practices, or early childhood education influence the expectations placed on parents and teachers, shaping children's experiences. Cultural narratives around child development, such as the emphasis on academic achievement versus holistic well-being, are macrosystem-level factors that indirectly influence how children are raised and educated. Thus, although the macrosystem is furthest from the child, its ideological and structural underpinnings filter down and affect the child's daily experiences through policies, practices, and shared beliefs.

While the macrosystem encompasses dominant cultural values, political ideologies, and belief systems that shape the inner layers of a child's environment, it is important to recognise that such conceptualisations are not universally accepted. New Zealand-based researcher Macfarlane (2000, p. 18) argued that Bronfenbrenner's ecological theory is "no more sophisticated than" the Absorbing Communities Theory introduced by Makareti (known as Maggie Papakura) in 1938. McFarlane thus suggested that Bronfenbrenner's model was not entirely original. Manning (2017) expands on Makareti's theory, which presents a Māori

ecological worldview that centres on the collective, prioritising community over the individual (see Figure 4). In Manning’s interpretation (Manning, 2017), the concept of absorption is made clear: the individual is integrated into the family (whānau), the family into the subtribe (hapū), and the subtribe into the larger tribe (iwi). This model offers a layered understanding of belonging and identity that challenges the Western emphasis on individualism. For example, questions about which ethnic narratives are prioritised in a national history curriculum (macrosystem) or how these narratives are implemented in communities (exosystem) reflect power dynamics embedded in cultural systems.

Figure 4

Interpretation of Makareti’s ‘Absorbing Communities Theory’



Note: Adapted from “Place-consciousness and Bronfenbrenner’s ecological systems model: A discussion of recurring issues that undermine the teaching of indigenous histories in New Zealand and Australian schools”, by R.F. Manning, 2017, *The Australian Journal of Indigenous Education*, 46(2), p. 151. Copyright 2017, by Manning. Adapted with permission.

Bronfenbrenner Phase II (1980-1993)

In the second phase revised framework, Bronfenbrenner (1986a) emphasised that the environments influencing a child's development do not exist in isolation, nor are they static; they change over time and are shaped by both historical context and personal life events. He highlighted three ecological systems as external influences on the family:

- the mesosystem, in which reciprocal interactions occur between home and school;
- the exosystem, where events in parents' settings, particularly workplaces, can affect the child even if the child is not physically present there; and
- The chronosystem, which encompasses changes and continuities over time in both the individual and their environments (Bronfenbrenner, 1986b).

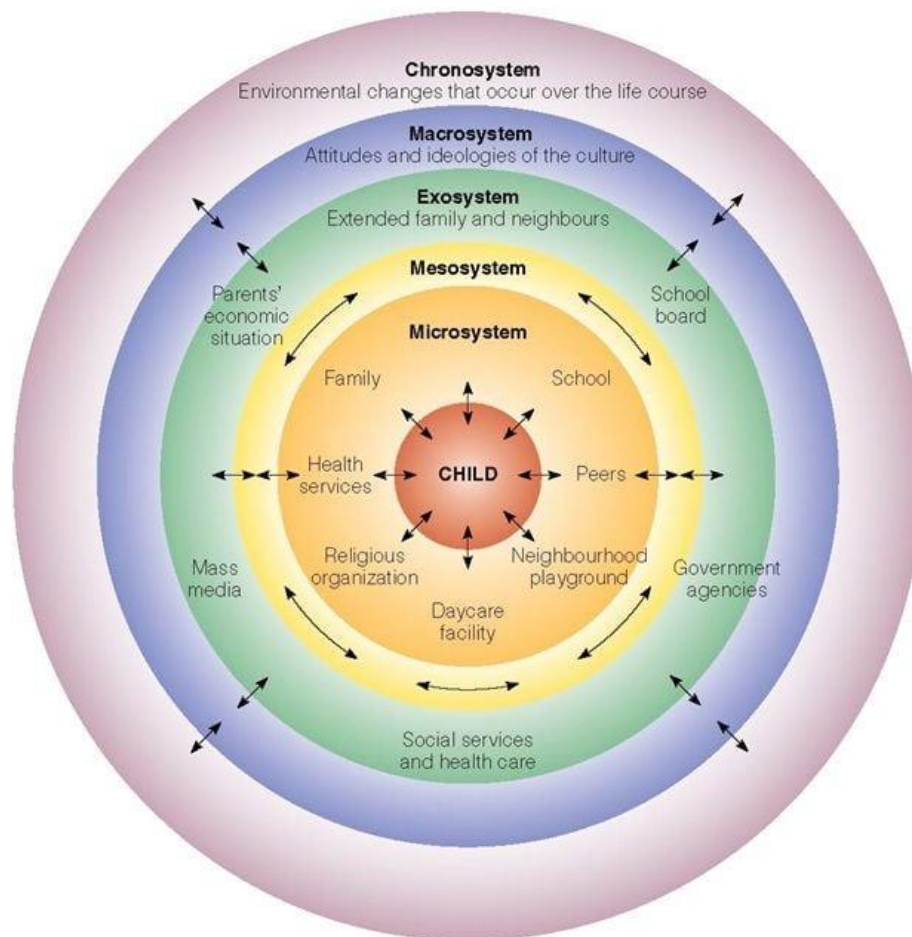
There is no formal diagram or illustration of the chronosystem itself in Bronfenbrenner's publications (1986a, 1986b, 1988). However, Bronfenbrenner explains the chronosystem in detail through text and references its integration into his nested system model (1986b). The chronosystem includes both major life transitions (e.g., starting school, entering the workforce, experiencing parental divorce or the death of a family member) and sociohistorical events (e.g., economic recessions, pandemics, technological revolutions). Bronfenbrenner (1986b) asserted that time is as vital as context in shaping development. Thus, the chronosystem adds a temporal dimension to the ecological model, representing how individuals and their ecological settings evolve.

Building on this, scholars such as Neal and Neal (2013) emphasised the importance of tracking developmental changes or consistencies over time, while Rosa and Tudge (2013) noted a shift in Bronfenbrenner's focus toward the individual's active role in shaping their environment. Hayes et al. (2017) also reinforced this perspective, illustrating that the era in which a child grows up deeply influences the quality and nature of their experiences. For instance, children raised in the 1950s encountered vastly different forms of technology and societal expectations compared to those born in the 2000s.

An example of the chronosystem in action can be seen in a child's transition from preschool to primary school, which involves the mesosystem (school-family interaction) and reflects broader societal expectations of readiness. As Bronfenbrenner's theory evolved, the inclusion of the chronosystem allowed for a more dynamic and life-course-oriented understanding of

human development, one that accounts for both personal milestones and broader historical forces (Crawford, 2020; Guy-Evans, 2020; Hayes et al., 2017). As Bronfenbrenner did not provide a formal illustration of the chronosystem in his original works, the adapted diagram from Evans (2020) offers a compelling and integrative visual model. By placing the chronosystem (see Figure 5) as an outermost layer that encompasses all ecological systems, the diagram effectively captures Bronfenbrenner's conceptualisation of time as a cross-cutting influence, encompassing life transitions, sociohistorical events, and developmental change over the life course (Bronfenbrenner, 1986b; Guy-Evans, 2020; Hayes et al., 2017).

Figure 5
Bronfenbrenner's Ecological System Theory in Phase II



Note: Reprinted from Bronfenbrenner's ecological system theory, by O. Guy-Evans, 2020, *Simply Psychology*. Copyright 2020 by Guy-Evans. Reprinted with permission.

Complementing this temporal perspective, Bronfenbrenner and Ceci (1993) refined the macrosystem to emphasise the cultural and structural factors that underpin and organise the micro-, meso- and exosystems. He defined the macrosystem as “the overarching pattern of micro-, meso-, and exosystems characteristic of a given culture, subculture, or other extended social structure” (p. 25). This broader structure includes elements such as belief systems, socioeconomic conditions, levels of risk, social class, and ethnic or religious affiliations (Bronfenbrenner & Ceci, 1993). The revised understanding of the macrosystem highlights how culture is not an isolated system but rather an interdependent constellation of systems that guide, limit, and enable human development. Together, the chronosystem and macrosystem reveal how historical time and cultural context jointly shape the pathways through which individuals grow and participate in society.

Bronfenbrenner Phase III (1993-2006)

The third and final phase of Bronfenbrenner’s theory is widely known as the bioecological model, also referred to as the Process–Person–Context–Time (PPCT) model. In this phase, Bronfenbrenner refined and deepened his ecological theory by explicitly introducing and defining four interrelated components: proximal processes, person characteristics, context, and time. This phase marked a significant theoretical evolution, where Bronfenbrenner collaborated with scholars such as Gary W. Evans, Stephen J. Ceci (both from Cornell University), and Pamela A. Morris (from New York University). Many of his publications during this phase were co-authored, including works published posthumously, such as Bronfenbrenner and Morris (2006).

Bronfenbrenner and Ceci introduced the term ‘bioecological model’ in 1994, emphasising the integration of biological factors with ecological context (Bronfenbrenner & Ceci, 1994). The motive for using the term *bioecological model* was to draw attention to the role of the developing individual. As Bronfenbrenner and Morris (1998) explained:

[It] represents a marked shift in the centre of gravity of the model, in which features of the earlier version are first called into question, but then recombined, along with new elements, into a more complex and more dynamic structure... the model presented, while still evolving, is now called the bioecological model. (p. 993–994)

Bronfenbrenner and Ceci (1994) emphasised a critical shift in the model from focusing on the ‘environment’ in earlier phases to focusing on ‘process’ in the revised model. In particular,

Bronfenbrenner and Morris (2006) illustrated how proximal processes influence developmental outcomes. For example, Bronfenbrenner and Morris (2006) demonstrated that children from disadvantaged socioeconomic backgrounds, who were born with average birth weight, benefited significantly from rich social interactions within their environment. This example illustrates that proximal processes can mediate the relationship between contextual disadvantage and positive developmental outcomes, depending on the child's individual characteristics and timing of exposure.

According to Bronfenbrenner and Ceci (1994), proximal processes, defined as recurring, meaningful interactions between the individual and their immediate environment, serve as the primary drivers of developmental change. These interactions are most powerful within the microsystem and must occur consistently over sustained periods to exert a significant developmental impact. As previously noted, the bioecological model is often referred to as the PPCT model (Bronfenbrenner & Ceci, 1993), with four core components:

- Process (P): The core developmental engines are proximal processes, such as parent–child interactions, play, or learning activities, which occur within the microsystem and evolve over time.
- Person (P): Individual characteristics, including genetic dispositions, temperament, gender, or health status, which influence and are influenced by proximal processes.
- Context (C): The nested ecological systems (micro-, meso-, exo-, and macrosystem) in which development takes place, including factors like family structure, social class, and cultural norms.
- Time (T): The dimension of temporality, both micro-time (moment-to-moment interactions), meso-time (patterns over days or weeks), and macro-time (sociohistorical conditions).

Among these components, the *process*, and more specifically, *proximal processes*, hold a central role. Bronfenbrenner argued that these interactions are the primary mechanisms through which the effects of person characteristics, environmental contexts, and temporal conditions are realised. The following section elaborates on the nature and function of proximal processes as foundational elements driving developmental change.

Proximal processes

The first component of the PPCT model is *process*, specifically referred to as *proximal processes*. Bronfenbrenner and Morris (1998) defined these as the primary mechanisms through which human development occurs. They stated:

Human development takes place through processes of progressively more complex reciprocal interaction between an active, evolving biopsychological human organism and the persons, objects, and symbols in its immediate external environment. To be effective, the interaction must occur on a fairly regular basis over extended periods of time. Such enduring forms of interaction in the immediate environment are referred to as proximal processes. (p. 996)

Proximal processes are the primary mechanisms of human development in bioecological theory. As Bronfenbrenner and Morris (2006) clarified, they are “a construct that encompasses particular forms of interaction between organism and environment” (p.795). Common examples include feeding or comforting an infant, playing with a young child, peer interactions, learning activities, motor play, problem-solving, and acquiring knowledge. These processes are not static; their effectiveness depends on several interrelated factors. Bronfenbrenner and Morris (1998) described developmental outcomes as:

The form, power, content, and direction of the proximal processes affecting development vary systematically as a joint function of the characteristics of the developing person; of the environment both, immediate and more remote, in which the processes are taking place; the nature of the developmental outcomes under consideration; and the social continuities and changes occurring over time through the life course and the historical period during which the person has lived. (p. 996)

The bioecological model demonstrates how an individual's genetic potential is expressed through behaviour and action via proximal processes. Person characteristics and developmental outcomes jointly shape the influence of these processes. Moreover, the association between parent–child interactions and children's social behaviours (whether positive or negative) also varies depending on the child's age, gender, and other personal attributes (Bronfenbrenner, 2005).

Person

The second component of the bioecological framework, known as the PPCT model, is the *person*. Bronfenbrenner and Morris (1998) identified three categories of personal

characteristics that influence the direction, form, and effectiveness of proximal processes: dispositional (or force) characteristics, resource characteristics, and demand characteristics. These characteristics operate differently across developmental contexts and over time.

Force characteristics refer to inherent dispositions that either initiate and sustain, or disrupt and inhibit, the functioning of proximal processes. They are considered the most influential in shaping developmental outcomes. Generative force characteristics foster development and include traits such as curiosity, the initiative to engage in individual or social activities, responsiveness to others, and the ability to delay immediate gratification in favour of long-term goals. In contrast, disruptive force characteristics, such as impulsiveness, explosiveness, distractibility, and, in extreme cases, aggression and violence, may obstruct the effective operation of proximal processes (Bronfenbrenner, 2005).

Demand characteristics are observable traits that trigger or suppress responses from the social environment, thereby shaping the frequency and nature of interactions essential to proximal processes (Bronfenbrenner, 2005). These include behavioural tendencies (e.g., calmness or agitation), physical appearance (e.g., attractiveness), and temperamental traits (e.g., hyperactivity or passivity). Some demand characteristics, such as age, gender, or skin colour, are immediately visible and can significantly influence how others engage with the developing person.

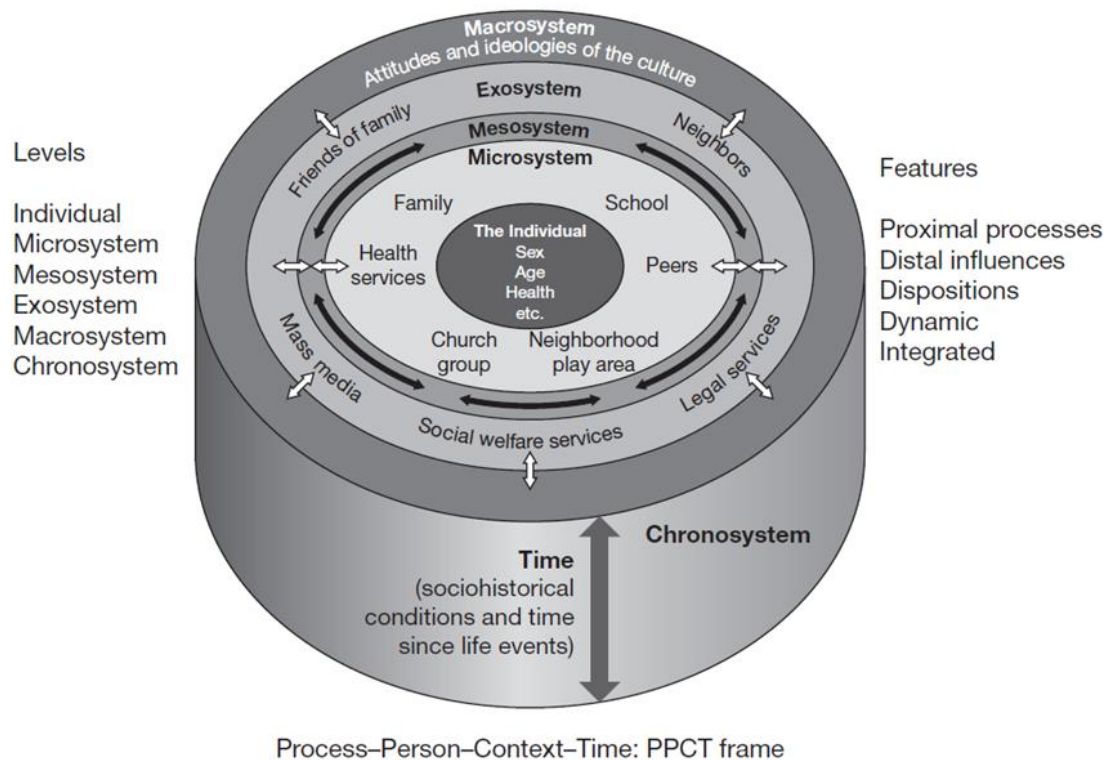
Importantly, Bronfenbrenner's later work emphasised that personal characteristics play a dual role in the bioecological model: first, as inputs that shape developmental pathways through their influence on proximal processes; and second, as outcomes of development themselves (Bronfenbrenner, 1995, 2005). As Rosa and Tudge (2013) noted, this dual function highlights the recursive and dynamic nature of human development within the bioecological framework.

Context

The *context* component of Bronfenbrenner's bioecological model reflects a significant evolution from his earlier ecological systems theory, broadening the understanding of how environments shape human development. Figure 6, adapted from Hayes et al. (2017, p. 14), illustrates the Bioecological Model of Development proposed by Bronfenbrenner and Morris (2006). In this model, the chronosystem is portrayed not merely as an outer layer but as a temporal dimension that intersects and permeates all contextual levels. It reflects

sociohistorical conditions and the timing of life events that influence, and are influenced by, the individual's developmental trajectory described by Bronfenbrenner and Morris (2006). This reconceptualisation marks a shift from a static, hierarchical model to a dynamic and integrated system of influences over time.

Figure 6
The Bioecological Model of Human Development



Note. Reprinted from *Introducing Bronfenbrenner: A guide for practitioners and students in early years education* (revised ed.), by N. Hayes, L. O'Toole & A. M. Halpenny, 2017, Routledge. Copyright 2017 by Informa UK Limited. Reproduced by permission of Taylor & Francis Group.

In the third and final phase, Bronfenbrenner (2005) reconceptualised the role of *context* in development. While the structural outline of the earlier ecological systems remained, the emphasis shifted toward understanding how these environmental contexts interact with the individual over time. Notably, the chronosystem was no longer depicted as the outermost layer but rather as a dimension that intersects all levels of context. It reflects sociohistorical

conditions and the timing of life events that influence, and are influenced by, the individual's development. This shift transitioned from a static, layered model to a more dynamic and interconnected framework. Bronfenbrenner and Morris (2006) described the bioecological model as "an evolving theoretical system for the scientific study of human development over time" (p. 793). This last phase of Bronfenbrenner's theory highlighted the critical distinction between environment (context) and process (interaction) or, put differently, between environment (nature) and process (nurture).

While less emphasis was placed on altering the broader contextual systems, Bronfenbrenner expanded the microsystem concept to include not only interpersonal interactions but also symbolic and linguistic engagement. He now defined the microsystem as:

A pattern of activities, social roles, and interpersonal relations experienced by the developing person in a given face-to-face setting with particular physical, social, and symbolic features that invite, permit, or inhibit engagement in sustained, progressively more complex interaction with and activity in the immediate environment. (Bronfenbrenner & Ceci, 1994, p. 1645)

Bronfenbrenner and Morris (2006) emphasised that proximal processes, whether through individual engagement with objects and symbols or reciprocal interaction with others, occur within microsystems. However, they also recognised that the meso-, exo-, and macrosystems continue to exert important influences on the developing individual.

Scholars have expanded upon and critiqued Bronfenbrenner's final-phase ideas. For instance, Rosa and Tudge (2013) argued that the commonly used nested 'matryoshka doll' metaphor fails to capture the dynamic, reciprocal nature of the bioecological model. They emphasised that the mesosystem is not a layer, but rather the interconnections between microsystems. In a separate paper, Rosa and Tudge (2013) also noted that Bronfenbrenner largely omitted explicit discussion of the macrosystem in his final writings, despite its prior importance as the cultural layer in phase two. Further critiques have emerged from Vélez-Agosto et al. (2017), who proposed revising the model to reposition culture from the macrosystem to the microsystem, arguing that separating culture from everyday practices misrepresents its role in development.

Time

The fourth and final element of the PPCT is *time*, which is conceptualised through the chronosystem. Although the original ecological systems theory (Bronfenbrenner, 1979) did not include time as a distinct component, Bronfenbrenner later acknowledged its critical role in shaping developmental trajectories. In the bioecological model, time is integrated into the framework to capture the temporal dimension of development, reflecting both individual and societal change over time.

To provide a more nuanced understanding, Bronfenbrenner and Morris (1998) disaggregated the chronosystem into three subcomponents: *micro time*, *meso time*, and *macro time*. Micro time refers to what occurs during specific episodes of proximal processes, capturing the moment-to-moment continuity or disruption in interactions. Meso time involves the frequency and consistency of these interactions over broader intervals, such as across days or weeks. Macro time refers to the broader sociohistorical conditions and evolving cultural expectations that influence, and are in turn influenced by, developmental processes across the lifespan and across generations.

In the final phase of his work, Bronfenbrenner envisioned the bioecological model not merely as a theoretical framework but also as a tool to inform public policy. He aimed to improve the developmental conditions of children, adolescents, and families by emphasising the interaction of processes, people, contexts, and time. His later writings (Bronfenbrenner, 2005; Bronfenbrenner & Ceci, 1994; Bronfenbrenner & Evans, 2000) illustrate his commitment to aligning scientific inquiry with policy interventions that optimise human development within changing ecological and temporal conditions.

Tudge et al. (2009) further elaborated the temporal dimension of Bronfenbrenner's bioecological model by distinguishing three interrelated forms of time: micro time, meso time, and macro time. Micro time refers to the timing and duration of specific activities or interactions within proximal processes, while meso time captures the regularity and consistency of these activities over time within the individual's environment. Macro time aligns with the chronosystem and reflects broader sociohistorical conditions, including generational change and historical events that shape developmental trajectories. Through this tripartite conceptualisation, Tudge et al. (2009) emphasised that time is not merely a background variable but an integral component of developmental processes.

Applications of Bronfenbrenner's theory in research

Since the publication of *The Ecology of Human Development* in 1979, Bronfenbrenner's ecological systems theory has been widely adopted as a conceptual framework in research across multiple disciplines, including education, health, psychology, and organisational studies. The theory has been particularly influential in exploring how various environmental contexts influence human development. Bronfenbrenner's ecological and bioecological systems theory has been widely applied across diverse populations and professional contexts. Studies have examined its relevance to children's development (Ashiabi & O'Neal, 2015; Rozsahegyi, 2017), students' experiences (Jones, 2018), parental engagement (Ahmad, 2021; Page, 2011), family-service (Clarkin-Phillips, 2016), and teacher development (Manning, 2017; Mligo, 2015). Beyond educational settings, the framework has informed analyses of mentoring relationships (Fyall et al., 2020), and professional practice among counsellors (Chan et al., 2015), social workers (Houston, 2017), and trainers (Lau & Ng, 2014).

In the following section, I critically review selected studies that have employed Bronfenbrenner's ecological and bioecological systems theory, highlighting the range of participants and research contexts. This review serves to position my own research within the broader scholarly landscape by identifying both the similarities and distinctions in the application of Bronfenbrenner's framework.

Bronfenbrenner's ecological systems theory has been widely applied to understand how interactions across multiple environmental systems shape children's development. Scholars such as Neal and Neal (2013) reconceptualised the model as a dynamic network of relationships, highlighting the importance of overlapping social contexts like home, school, and community. Fenmachi's (2023) study in Cameroon further illustrates the model's application by examining how microsystem and mesosystem factors, such as classroom practices and parent-teacher relationships, influence early learning. While her work focused on children's development, my research instead explores adult learning processes, specifically how mentors and teachers interact and grow professionally within early childhood education systems, where children, in this context, are the ultimate beneficiaries of improved practice.

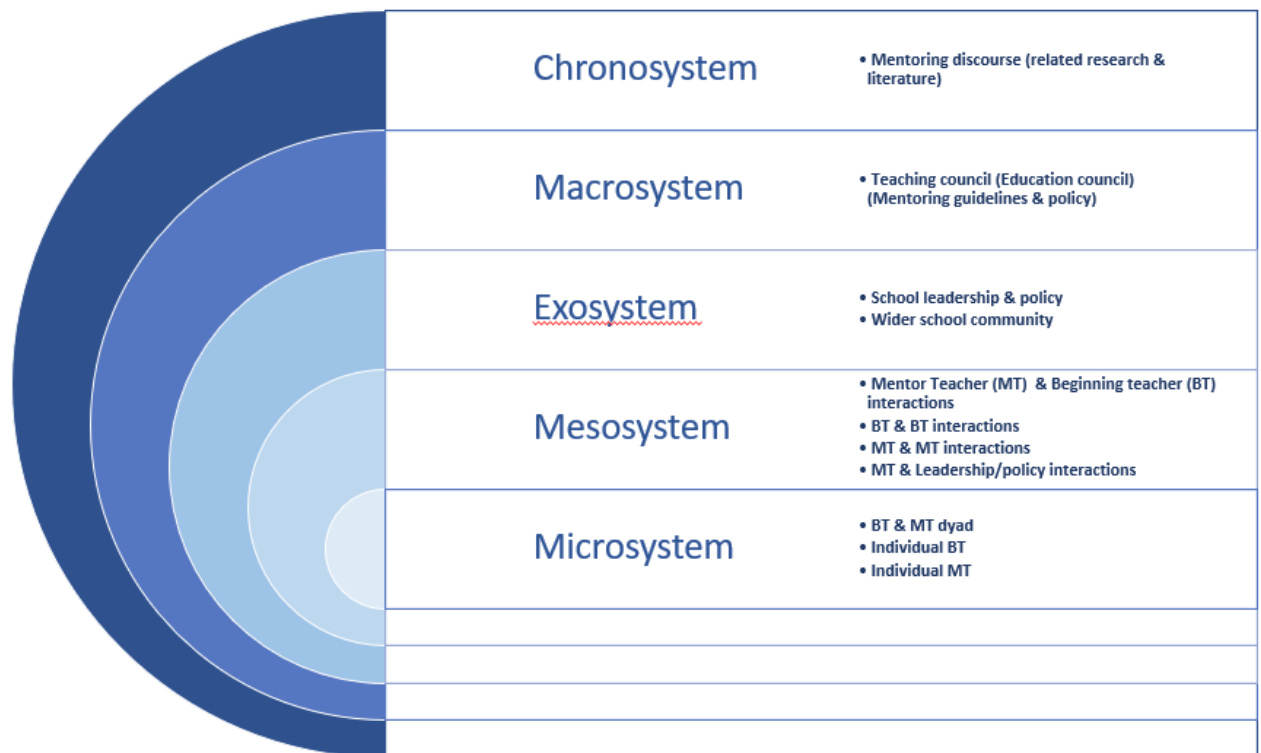
Ecological perspectives on kindergartens and families

Bronfenbrenner's ecological systems theory has proven useful in examining how policy, institutional, and interpersonal factors interact to shape early childhood experiences, particularly in low-income contexts. Clarkin-Phillips (2016) in New Zealand and Iruka et al. (2020) in rural America applied this framework to demonstrate how changes at exosystem and mesosystem levels can strengthen family environments and improve long-term developmental outcomes for children. While both studies focused on families and children as central subjects, my research, conducted in the low-resource setting of Kupang District, Indonesia, uses Bronfenbrenner's bioecological theory to explore a different dimension: the professional learning and relational experiences of teachers and mentors. Although children remain the ultimate beneficiaries, the primary focus of this study is on adult learning within early childhood education systems rather than on family dynamics. Adult learning theory underscores that professional growth is most effective when it is self-directed, grounded in experience, and directly relevant to practitioners' contexts (Knowles et al., 2015), supporting the analysis of mentoring as a contextually situated learning process.

Understanding mentoring relationships through the bioecological lens

Bronfenbrenner's bioecological theory has increasingly informed research on teacher learning and mentoring by framing professional development as a dynamic process shaped by multiple, interacting systems. For example, Fyall et al. (2020) applied this framework to examine mentoring experiences in three New Zealand primary schools, developing a 'mentoring ecology' model (see Figure 7) that positions policy, school leadership, and mentoring relationships within an interconnected system of levels. Their findings revealed that alignment between policy (macrosystem/chronosystem) and everyday school practices (microsystem/mesosystem) was critical to effective mentoring, yet often challenged by ambiguous interpretations and inconsistent support mechanisms. Similarly, Li and Huang (2023) used ecological systems theory to trace belief changes among pre-service teachers during teaching practicums in China, identifying how microsystem experiences (e.g., reflective teaching) and mesosystem interactions (e.g., mentor and peer engagement) influenced belief elaboration and integration. These studies underscore the value of an ecological perspective in capturing how institutional, relational, and cultural contexts interact to shape teacher development over time.

Figure 7
Mentoring Ecology in Participating Primary Schools



Note. Adapted from *Mentoring Ecology in Participating Primary School*, by G. Fyall, J. Cowan, G. Buchanan, 2019, p. 9, Springer. Copyright 2020 by Taylor & Francis Group. Adapted with permission.

Building on these insights, my study explores mentoring within the early childhood education (ECE) context in Kupang District, Indonesia, where low-resource settings pose additional system challenges. Like Fyall et al. (2020), I position mentors, teachers, and their interactions within the microsystem and mesosystem, while examining policy, school leadership, and institutional support at the exosystem and macrosystem levels. By including beginning and experienced teachers, mentors, government stakeholders, and development agency representatives, my study offers a broader analysis of the enabling and constraining forces behind mentoring practices. In contrast to Li and Huang's (2023) focus on pre-service teachers, my research engages with in-service professionals and highlights individual motivation, relational dynamics, and role negotiation within mentoring relationships. It emphasises how these elements are shaped by multiple, interacting systems within the broader ecological context of early childhood education.

In addition, cultural and spiritual values are anticipated to play a significant role in shaping professional learning and commitment. Research by Yue et al. (2017) and Ifanti and Fatopoulou (2011) highlighted the importance of self-directed learning and cultural beliefs in sustaining teacher engagement in professional development. Similarly, Widayati et al. (2021) and Yuwono and Harbon (2010) found that many Indonesian teachers perceive their professional roles as moral or religious callings. In my study, many of the teacher and mentor participants are Christians, which contrasts with Indonesia's majority-Muslim demographic. While they do not necessarily teach in religious institutions, it is anticipated that religious beliefs may emerge in the findings as a source of intrinsic motivation and as a lens through which teaching is experienced as meaningful and value-laden work. These socio-cultural dimensions, situated within the macrosystem, further enrich the understanding of adult learning in mentoring relationships, with children as the indirect beneficiaries of enhanced teacher competence and care.

Bronfenbrenner's influence on Indonesian ECE policy and research

Bronfenbrenner's ecological systems theory has had a notable, though often implicit, influence on education policy, research, and professional publications in Indonesia. While the theory may not always be explicitly cited, its core principles are embedded in key developments, most prominently the enactment of Presidential Regulation No. 60 of 2013 on Holistic-Integrative Early Childhood Development (HI-ECD). This regulation reflects a socio-ecological view of child development, underscoring the need for integrated services, cross-sectoral collaboration, equitable access to quality ECD, increased public investment, active community and family participation, professional teacher development, and strengthened monitoring and evaluation systems (Siagian & Adriany, 2020; Wahono & Hermoyo, 2020; Wulandari et al., 2018). Bronfenbrenner's model also underpins the policy emphasis on quality adult-child interactions, effective communication between families and educators, and systemic coordination across sectors (Hasbi, 2020). These principles resonate with global literature, such as The Lancet series (Black et al., 2017), which incorporates socio-ecological theory into the nurturing care framework (WHO et al., 2018) to address children's development within complex sociocultural and structural environments.

In academic and professional discourse, Bronfenbrenner's ecological systems theory (1979) has also been widely adopted as a conceptual lens by Indonesian researchers (Istiana, 2014; Mujahidah, 2015; Musfita, 2019; Nurhasanah, 2021; Ulfah et al., 2021). Much of this research uses an ecological theoretical framework that focuses on parenting, though additional topics include school transitions (Istiana, 2014; Musfita, 2019), character education (Mujahidah, 2015), and post-disaster recovery (Juth et al., 2015). For example, Juth et al. (2015) examined parent-child dyads in rural Indonesia following an earthquake, using Bronfenbrenner's ecological perspective to show how parental stress and trauma in the meso- and exosystems influence child distress. This dyadic interdependence reflects proximal processes embedded within layered systems.

However, several factors limit the global visibility and academic influence of this body of work. Many studies are published only in Bahasa Indonesia, often with limited English translation, and are stored in institutional repositories rather than indexed in international databases. Furthermore, some lack methodological depth, as they are primarily designed for local seminars or national forums rather than peer-reviewed publications. Despite these constraints, the continued relevance of Bronfenbrenner's framework in Indonesian contexts highlights its adaptability and value. There remains significant potential to advance this scholarship through more rigorous, internationally visible research that engages more deeply with the bioecological model's full scope, especially its process and temporal dimensions.

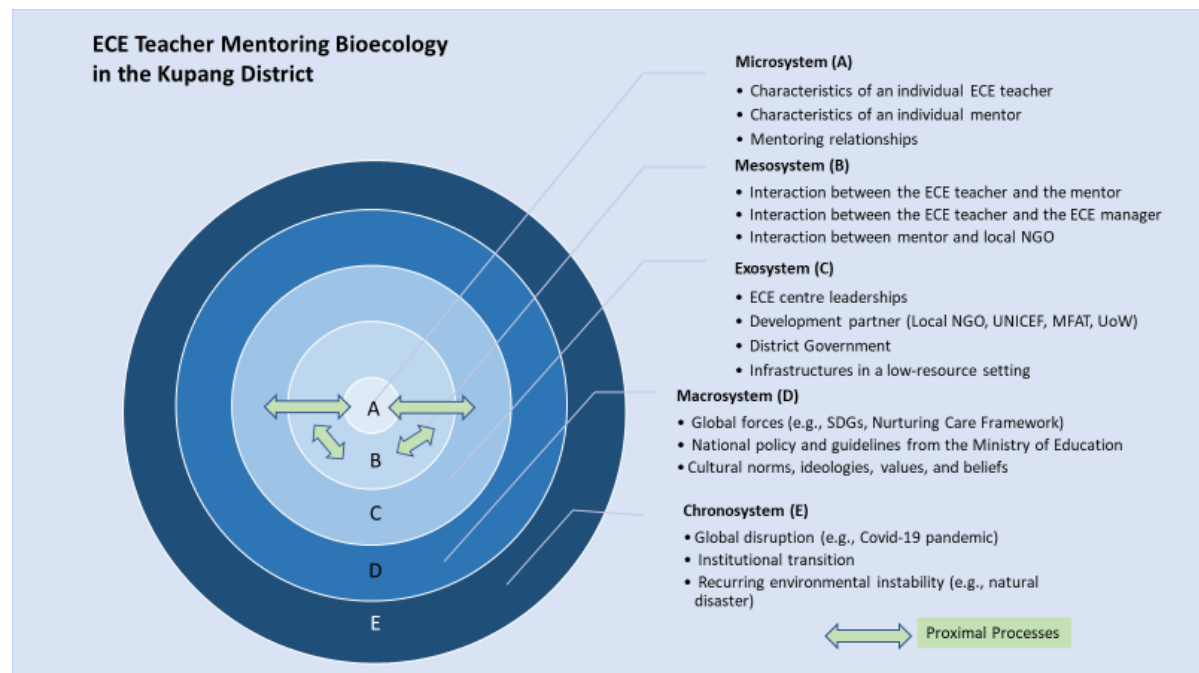
The application of the bioecological systems framework in this study

This study applies Bronfenbrenner's Bioecological Systems Framework to conceptualise and analyse the Early Childhood Development (ECD) teacher mentoring ecology in Kupang District, Indonesia. The framework offers a theoretical lens to explore how mentoring relationships are shaped by interrelated factors at multiple levels, from individual characteristics (person) and interpersonal dynamics (process), to organisational structures (context) and their evolution over time (time). Specifically, this study draws on the Process-Person-Context-Time (PPCT) model as formulated by Bronfenbrenner and Morris (2006) to investigate how mentoring is embedded in nested systems and shaped by institutional, sociocultural, and policy influences. The model adopted in this thesis is grounded in Bronfenbrenner's (2005) third phase of bioecological theory, particularly the Process-

Person–Context–Time (PPCT) formulation, and is further informed by Fyall et al.’s (2020) conceptualisation of a mentoring ecology. I developed Figure 8 on the ECE teacher mentoring bioecology in Kupang District to reflect that theoretical foundations are integrated into a contextualised analytical framework developed specifically for this study.

Figure 8

ECE teacher mentoring bioecology in the Kupang District



Note. Author’s analysis of key elements of ECE teacher mentoring in the Kupang district, based on Bioecological components.

While much of the existing literature applying Bronfenbrenner’s theory focuses on children or families, this research extends the framework to the domain of adult learning. It examines the mentoring experiences of ECE teachers and mentors within the microsystem and mesosystem, while considering the influence of school leadership, policy directives, and programmatic structures at the exosystem and macrosystem levels. The chronosystem, often underexplored in mentoring research, enables a temporal analysis of how mentoring policies and practices evolve. Although children are not the primary focus of this study, they remain central as indirect beneficiaries of improved mentoring relationships and more responsive teaching practices.

The proximal processes

In this study, the concept of proximal processes provides a critical lens for examining the mentoring relationships between early childhood education (ECE) teachers and their mentors. I use this concept to explore how mentoring unfolds in real-life, face-to-face settings, specifically during mentor visits to ECD centres and through monthly cluster meetings where teachers engage in collaborative reflection and learning. These contexts are not only sites of instructional support but also spaces where personal characteristics, such as trust, motivation, professional commitment, and openness to feedback, interact with environmental factors like institutional expectations, resource constraints, and socio-cultural values. Through this lens, I identify key features of mentoring interactions that function as developmental drivers, including goal-setting conversations, modelling of pedagogical strategies, feedback exchange, co-construction of knowledge, and mutual affirmation of professional roles.

The person

In this study, the interplay between personal characteristics and contextual settings is central to understanding mentoring dynamics. Rather than isolating traits such as prior teaching experience, motivation, and values, the analysis considers how these attributes function within the institutional and socio-cultural environments in which mentors and teachers operate. These characteristics shape how individuals engage in and benefit from mentoring, influencing the quality of interactions, openness to feedback, and receptiveness to change. By focusing on how personal dispositions are mediated by factors such as organisational expectations, community beliefs, and the structure of mentoring encounters, the study highlights the relational and situated nature of professional development. This approach helps explain variability in mentoring outcomes and identifies conditions under which personal and contextual elements align to support teacher growth and learning.

Microsystem (A)

In the context of this research, the microsystem is represented by the mentoring relationship between ECE teachers and their mentors, specifically during face-to-face visits to ECD centres. These interactions are direct, frequent, and reciprocal, reflecting the core characteristics of microsystemic processes. The study examines how teachers and mentors define effective mentoring, how their educational backgrounds and teaching histories inform their roles, and how these factors contribute to mutual learning and skill development. These

mentoring encounters serve as the primary setting where professional knowledge is exchanged, and pedagogical identities are shaped. Their quality is determined not only by technical content but also by relational trust, shared goals, and emotional support, making this microsystem a key site of developmental influence.

Mesosystem (B)

The mesosystem in this study consists of the interrelated spaces where mentoring interactions occur beyond the ECD centre itself, most notably during sub-district cluster meetings and district-level training events. These settings form a web of microsystems in which mentors and teachers engage in collaborative activities, share experiences, and receive reinforcement for their learning. The analysis focuses on how consistency or fragmentation across these settings affects the coherence of mentoring and the sustainability of its impact. Importantly, this mesosystem also includes the relationship between mentors and the local NGO responsible for their supervision and performance review. While district education authorities contribute to the evaluation process, the NGO ultimately determines contract continuation or termination. This power dynamic creates a dual system of accountability, shaped by local government presence but governed by non-state actors, that can affect mentors' job security, commitment, and continuity of practice. Understanding these layered interactions provides insight into how professional roles are negotiated across institutional boundaries.

Exosystem (C)

In this study, the exosystem comprises actors and structures that influence mentoring indirectly, those not directly engaged in daily mentoring interactions but whose decisions significantly shape its implementation. These include ECE centre managers who approved programme participation, district government, NGOs that manage mentor employment, development partners (such as UNICEF, MFAT, and the University of Waikato/UoW), and the infrastructure in under-resource settings that designed training formats and reporting mechanisms. While mentors and teachers are not directly involved in these strategic choices, the outcomes of such decisions, such as mentor allocation, school selection, and the expectations placed on programme reporting, directly affect their professional environments. By examining how these exosystemic actors create enabling or constraining conditions for mentoring, the study sheds light on the broader infrastructure that supports or limits teacher

development. The exosystem thus functions as an organisational backdrop that shapes policy-practice alignment and influences how mentoring is enacted in everyday settings.

Macrosystem (D)

In this study, the macrosystem is reflected in three main forces: Global forces (e.g., SDGs, Nurturing Care Framework), the National policy and guidelines on ECE teacher professional development and the prevailing cultural values within Kupang District and the broader Timor Island context. On the one hand, policy guidelines issued by the national government formalise expectations regarding the roles, responsibilities, and competencies of mentors and ECE teachers. These documents frame mentoring not only as technical assistance but as a professionalisation strategy aligned with national development goals for early childhood education.

On the other hand, local cultural ideologies, particularly those concerning respect for authority, moral obligation, and communal responsibility, influence how mentoring relationships are enacted. In Kupang, values such as seniority, deference, and religious duty shape perceptions of mentorship, including how advice is given, received, and acted upon. These ideological constructs operate subtly but powerfully, guiding everyday interactions and shaping professional identity. By analysing the intersection of institutional policy and cultural norms, this study explores how macrosystemic forces support or constrain the emergence of effective and contextually appropriate mentoring practices.

Time or Chronosystem (E)

The mentoring programme examined in this study has been shaped by a series of time-bound transitions and disruptions that reflect the chronosystem's influence. The chronosystem in this study is shaped by three dominant temporal forces: (1) global disruption through the COVID-19 pandemic, (2) institutional transition from donor-led to government ownership, and (3) recurring environmental instability within a disaster-prone region. Together, these forces illustrate how mentoring is not a static intervention but a time-sensitive process continually reshaped by sociohistorical events, governance transitions, and contextual vulnerabilities. The COVID-19 pandemic significantly altered how mentoring was delivered, shifting interactions from in-person visits to digital or hybrid formats. This change impacted

the consistency, depth, and emotional connection of mentor–teacher relationships, especially in rural settings with limited technological infrastructure to conduct online meeting.

Other chronosystemic disruptions include natural disasters such as floods and storms, which temporarily paused mentoring activities and reoriented local education priorities. These events introduced instability into the mentoring ecosystem, affecting not only logistical operations but also the emotional resilience of both mentors and teachers. A more structural transition occurred when programme oversight shifted from international development partners (UNICEF, MFAT, UoW) to the Kupang District government. This change marked a critical moment in the programme’s institutionalisation, influencing funding flows, training protocols, and decision-making authority.

Finally, broader global narratives that frame Indonesia as a ‘developing country’ continue to shape mentoring policy and practice. These narratives legitimise external interventions and introduce international benchmarks that may not always align with local realities. Together, these chronosystemic developments illustrate how historical timing, external shocks, and evolving institutional arrangements interact to shape the direction, stability, and perceived value of the mentoring initiative.

Summary

This chapter has examined Bronfenbrenner’s bioecological systems theory, with a particular focus on the Process–Person–Context–Time (PPCT) model, as the central analytical lens for this study. Rather than treating mentoring as a static or individualised act, the framework positions it as a dynamic and contextually embedded developmental process. By mapping mentoring interactions across the five dimensions of the PPCT model, the chapter provides a foundation for analysing how mentoring unfolds and is shaped in the specific setting of Kupang District.

Crucially, the bioecological model enables an integrative perspective that links the personal (beliefs, motivations, identities) with the structural (policy, institutions, cultural norms) and temporal (disruptions, transitions, sustainability) dimensions of mentoring. This orientation allows the study to go beyond description, offering a relational and situated understanding of how mentoring is enacted, experienced, and potentially transformed over time. The literature reviewed has highlighted gaps in current scholarship, particularly a lack of empirical research

applying the full PPCT model to ECE mentoring in low-resource or non-Western contexts such as Indonesia. This study addresses those gaps by grounding its inquiry in the everyday realities of teacher–mentor relationships in Kupang.

Statement of Research Questions

Overarching Research Question:

How do contextual and systemic factors, such as institutional policies, school culture, mentor preparation, and socio-cultural expectations, influence the enactment of educative mentoring as a form of professional development for ECE teachers in Kupang, Indonesia, when examined through a Bioecological lens?

Sub-questions

1. What professional learning and mentoring practices (e.g., co-planning, reflection, feedback, classroom observation, dialogue) are enacted in mentor–teacher interactions, and how do these processes support teachers’ pedagogical growth?
2. How do mentors’ and teachers’ personal characteristics, such as motivation, values, and interpersonal qualities, shape the initiation and development of mentoring relationships within the microsystem?
3. In what ways do institutional, socio-cultural, and policy contexts across the meso-, exo-, and macrosystems enable or constrain mentoring relationships and the professional learning of teachers?
4. How have changes over time, such as shifts in donor support, policy priorities, or the COVID-19 pandemic, reshaped the mentoring programme’s sustainability and the evolution of mentoring relationships?

By adopting the PPCT model, this research embraces complexity, recognising the interdependence of individuals and systems and the influence of broader temporal forces. The following chapter outlines the research design and methodology, demonstrating how the theoretical foundations established here shape the study’s qualitative case study approach, data collection strategies, and analytical processes.

CHAPTER IV: RESEARCH DESIGN AND METHODOLOGY

Introduction

Building on the theoretical foundations outlined in Chapter III, particularly the emphasis on relational, contextual, and temporal dimensions of human development, this chapter presents the research design and methodological approach adopted in the study. As established in Chapter I, the research is situated within a mentoring programme for early childhood educators implemented in Kupang District, East Nusa Tenggara. Accordingly, the methodological choices described in this chapter are shaped by the institutional, geographic, and temporal conditions of this context.

Grounded in a social constructivist epistemology, the study is informed by the view that knowledge is co-constructed through social interaction and embedded within specific cultural and contextual settings (Creswell & Creswell, 2017; Vygotsky & Cole, 1978). This epistemological stance aligns closely with the study's aim to explore how early childhood educators and mentors in Kupang District experience, interpret, and make meaning of their professional relationships and roles. Given social constructivism's emphasis on meaning-making within relational contexts, a qualitative case study design was selected to enable an in-depth examination of these experiences.

Drawing on the work of Stake (1995) and Merriam (2009), the case study is employed not merely as a method, but as a comprehensive research strategy for investigating complex, real-world phenomena. This approach enables rich, contextualised understanding of how mentors, teachers, and key stakeholders construct and negotiate professional identities within institutional and community settings. It is also theoretically congruent with Bronfenbrenner's ecological perspective (1979), which conceptualises human development as situated within nested systems of influence. Particular attention is given to the microsystem and mesosystem levels, where mentoring relationships are enacted and shaped through interactions within immediate and interconnected environments (2009).

The remainder of this chapter details the methodological procedures employed in the study. It outlines the strategies used to identify and recruit participants, describes the data generation

methods, including online surveys, semi-structured interviews, and document analysis, and explains the analytical procedures used to interpret the data. The chapter also addresses issues of trustworthiness and ethical considerations, including informed consent, confidentiality, and researcher positionality.

Research design: Case study

In this study, I adopted a qualitative instrumental case study design, drawing on Stake's (1995) conceptualisation of the case study as a strategy for gaining a deep understanding of a phenomenon situated within a bounded system. According to Stake (2005), a case is defined by its boundedness; it is a specific, limited entity in terms of time, place, or activity, and is selected for its capacity to shed light on a broader issue or concern. The case that anchors this research is the Holistic-Integrative Early Childhood Development (HI-ECD) mentoring programme implemented in Kupang District between 2016 and 2020. This case is bounded both spatially and temporally, encompassing mentoring activities conducted across 24 sub-districts in four regions of Kupang District over four years. It involves multiple stakeholders, including mentors, teachers, government officials, and development partners, whose diverse roles and experiences offer a multi-perspective view of how mentoring relationships are formed, maintained, and interpreted within real-world institutional and community settings.

Stake (1995) identifies three types of case study based on purpose: intrinsic, where the case is of interest in its own right; instrumental, where the case serves to understand something beyond itself; and collective, where several cases are studied to gain a broader understanding of a phenomenon. In this research, I align with Stake's (1995) conceptualisation and employ an instrumental case study to explore how mentoring is understood, enacted, and shaped within the layered systems of early childhood education. The HI-ECD mentoring programme in Kupang District (2016–2020) serves as a contextual entry point for investigating broader concerns such as adult learning, professional identity, and the relational dimensions of mentoring, issues that remain under-researched in the Indonesian context. While the programme itself provides the case boundaries in terms of time and setting, it is not the sole focus of the study. Rather, following Stake's (1995) framing, the case is used as a lens through which to gain insight into wider theoretical and practical questions, including the systemic and interpersonal conditions that shape educators' mentoring experiences across the microsystem and mesosystem levels of early childhood service delivery.

The choice of instrumental case study is grounded in my study's social constructivist epistemology and relativist ontology, both of which assume that knowledge is socially constructed and context-dependent. Stake's interpretive approach supports this orientation by privileging the participants' perspectives, meaning-making processes, and lived realities. His framework offers a conceptual and methodological fit that better aligns with the philosophical positioning of this research than Yin's more objectivist model.

Case study design is particularly appropriate for this inquiry because it enables a holistic, detailed investigation of a real-life social phenomenon in its natural setting (Merriam, 2009; Stake, 1995). In this study, I aim to understand how participants construct meaning around mentoring within the structures, relationships, and institutional pressures of their professional environments, rather than attempting to predict outcomes. This emphasis on meaning-making is consistent with the interpretive qualitative tradition, which values depth, context, and subjective experience.

A second reason for choosing a case study design lies in its conceptual alignment with Bronfenbrenner's bioecological systems theory (2005), which frames human development as shaped by dynamic interactions across nested environmental systems. Within this framework, I examine how mentoring unfolds in the microsystem of early childhood development centres and how it is influenced by interactions within the mesosystem, such as mentor-teacher relationships and parent engagement. I also consider the influence of broader structures, including the exosystem (district-level policies), macrosystem (national frameworks and development partner agendas), and chronosystem (temporal shifts in mentoring practices and education policy). The ecological perspective supports the need for a design that can attend to multiple layers of context, which the case study offers.

Third, this study is driven by a central 'how' question - How do participants experience and interpret mentoring within their local systems? - This lends itself well to a case study approach. Case studies are particularly well-suited for exploring process-oriented, open-ended inquiries that require close engagement with participants and their settings (Merriam, 2009; Simons, 2009). The design allows me to explore the situated nature of mentoring experiences as they are lived, narrated, and negotiated by key actors across different systems.

Fourth, the case study approach enables a rich, layered, and process-oriented understanding of mentoring relationships and the construction of professional identity over time. Mentoring is not a static or isolated intervention; it is embedded in social, institutional, and cultural contexts that influence how it is perceived and practised. Case study research provides the methodological flexibility and depth needed to capture such complexities, tensions, and transformative potentials (Stake, 1995).

Throughout the research process, I have drawn on these strengths of case study inquiry to build a coherent and grounded exploration of mentoring in early childhood education. The methodological and theoretical coherence between case study design, social constructivist and interpretive principles, and Bronfenbrenner's ecological systems theory provides a robust foundation for examining the relational, systemic, and contextual dimensions of the phenomenon under investigation (Creswell & Poth, 2018).

The choice of a case study approach is further justified by the study's focus on mentoring as a dynamic and contextually embedded process. Mentoring relationships do not occur in isolation but are shaped by interactions across multiple levels, including individual characteristics, institutional arrangements, professional expectations, and broader socio-cultural influences. A case study design allows these multiple layers to be examined holistically, preserving the complexity of real-world settings and avoiding the fragmentation that can result from more reductionist approaches.

This methodological approach is theoretically informed by Bronfenbrenner's ecological and bioecological systems theory, which conceptualises human development as the result of ongoing interactions between individuals and their environments over time (Bronfenbrenner & Morris, 2006). In particular, the study draws on the Process–Person–Context–Time (PPCT) model to guide methodological decisions and analytic sensibilities. Mentoring is understood not merely as a technical intervention or professional support mechanism, but as a set of proximal processes that emerge through sustained interactions between mentors and mentees within nested ecological systems (Bronfenbrenner, 2005). These systems range from immediate settings, such as early childhood centres and mentoring relationships (microsystem), to institutional and policy environments (exosystem and macrosystem), as well as temporal dimensions shaped by professional trajectories and historical conditions (chronosystem).

Overall, the qualitative instrumental case study design adopted in this research provides a coherent methodological foundation for addressing the study's research questions. It enables an exploration of mentoring in ECE as a relational, situated, and evolving practice, while remaining attentive to the ecological conditions that shape professional learning in rural Indonesian contexts. The following sections detail how participants were identified and recruited, how data were generated, and how analytic procedures were employed to ensure methodological rigour and trustworthiness (Creswell & Poth, 2018).

Methodological approach

This study adopted a qualitative instrumental case study design using multiple methods of data generation. Guided by a social constructivist epistemology and an interpretive orientation, the study sought to develop a rich and contextualised understanding of how mentoring was experienced, interpreted, and enacted by actors involved in the ECE teacher mentoring programme in Kupang District. Due to the constraints of the COVID-19 pandemic and the geographic dispersion of participants, I was unable to visit Kupang District to conduct classroom observations or face-to-face interviews. Consequently, data were generated through an online survey, online semi-structured interviews, and document analysis. While these methods provided a practical means of conducting the research remotely, they also enabled the phenomenon to be examined through different participant, institutional, and documentary lenses. The use of multiple sources of evidence supported triangulation by enabling the phenomenon to be examined from different perspectives (Cohen et al., 2018; Maxwell, 2010). Consistent with the study's constructivist orientation, triangulation was not used to establish a single objective account of mentoring, but to explore where different sources provided complementary, convergent, or sometimes divergent perspectives on mentoring experiences and practices.

Although the online survey generated descriptive numerical data through closed and ranked items, the study was not designed as a mixed-methods study. The survey data were analysed using simple frequencies and percentages. These were used primarily to describe participant characteristics and mentoring patterns, identify issues for further exploration, and inform the selection of interview participants. They did not constitute a separate quantitative strand of inquiry and were not used for hypothesis testing or statistical inference. The primary analytical emphasis remained qualitative and interpretive, with participants' experiences and

meanings examined through reflexive thematic analysis and subsequently interpreted through the bioecological framework. The use of multiple forms of evidence was therefore intended to enrich the contextual understanding of the case rather than to integrate independent qualitative and quantitative strands within a mixed-methods design.

The next section outlines the process of participant identification, followed by the procedures for gaining access and recruitment. It then describes the selection of survey participants and the subsequent selection of semi-structured interview participants.

Identification of research participants

This study employed a purposive and multi-layered sampling strategy to explore mentoring practices across different roles and system levels within early childhood education (ECE) in Kupang District. In qualitative research, participant selection is guided by alignment with the purpose of the study rather than statistical representativeness (Creswell & Poth, 2016).

Accordingly, purposive sampling was adopted to identify participants who could provide rich, in-depth insights into the enactment of mentoring within the Holistic-Integrative Early Childhood Development (HI-ECD) mentoring programme. While approaches such as snowball sampling are often used in studies involving hard-to-reach populations, they were not required in this research due to the clearly defined participant groups involved in the HI-ECD programme.

Three main groups of participants were identified for inclusion in this study: ECE teachers, mentors, and policy and programme stakeholders. Each group was selected to illuminate mentoring practices from different ecological positions within the system.

1. ECE teachers were included as primary participants in their role as mentees and active agents in mentoring relationships. To be eligible for the online survey, teachers were required to (a) have participated in the HI-ECD mentoring programme between 2016 and 2020, and (b) be able and willing to reflect on their professional experiences. These criteria ensured that participants had direct and relevant experience of mentoring within their daily teaching practice.
2. Mentors were selected based on their formal involvement in facilitating mentoring activities within the programme. Eligibility criteria for the online survey included (1) participation in mentor preparation or training, including the University of Waikato–

facilitated mentoring training conducted in 2018–2019, and (2) active engagement in supporting early childhood educators through mentoring activities or teachers' working groups at the sub-district level. Including mentors enabled examination of mentoring from the perspective of those responsible for guiding and sustaining professional learning.

3. Policy and programme stakeholders comprised policymakers and education specialists from government institutions and development agencies. This group did not participate in the online survey; instead, they were included exclusively in the semi-structured interviews. Participants were selected if they held leadership roles and had direct involvement in the planning, coordination, or implementation of the HI-ECD mentoring programme at district or provincial levels. Their perspectives provided critical insight into the institutional and policy contexts shaping mentoring practices.

Gaining access and recruitment procedures

Formal ethical approval was obtained prior to the commencement of data collection. Ethical clearance was granted by the Division of Education Research Ethics Committee (DEREC), Division of Education, The University of Waikato (Appendix A). To conduct this research in NTT Province, I obtained formal research permission from the NTT Governor and the Kupang District Government (*Bupati*). Copies of these permits, approval letters and a summary of my research proposal are provided in Appendices B–F. These approvals established formal access to the research site and participant groups.

Following institutional approval, recruitment procedures were coordinated through established programme structures. Information about the online survey was disseminated to early childhood education (ECE) teachers and mentors through the District Education Office and mentoring programme coordinators, primarily via official WhatsApp communication groups used for programme coordination. Participants received an invitation letter (Appendices G and H) outlining the purpose of the study, procedures, voluntary nature of participation, and ethical safeguards. Informed consent forms were distributed alongside the invitation. Only individuals who returned signed consent forms via the Zoho platform were provided access to the relevant data collection instruments.

For interview participants, initial contact was made through direct communication via email or WhatsApp (Appendix P) following consent (Appendix M). Interview appointments were arranged individually via telephone or messaging applications to accommodate participants' availability. Due to geographic dispersion and public health restrictions during the COVID-19 pandemic, all interviews were conducted remotely via Zoom or telephone. With participants' permission, interviews were audio-recorded. Each interview lasted approximately 40 minutes.

To support equitable participation, particularly for ECE teachers and mentors located in rural areas with limited internet access, participants were provided with a modest stipend (approximately NZ\$10 or IDR 100,000) to assist with mobile data costs. Participation in all stages of the study was voluntary, and participants were informed of their right to decline or withdraw at any time without penalty.

Selection of survey participants

The selection of online survey participants was conducted in collaboration with the Kupang District Education Office and the mentoring programme coordinators. An initial list of eligible early childhood education (ECE) teachers and mentors who had been involved in the HI-ECD mentoring programme was obtained from programme records maintained at the district level.

Invitations to participate in the online survey were disseminated through official WhatsApp groups used for programme communication. For the targeted 96 ECE teacher participants (four teachers from all 24 sub-districts), approximately 248 ECE teachers were invited to join the online survey. Invitations were circulated via WhatsApp groups administered by the District Education Office (Appendix K). For the targeted 30 mentors, invitations were distributed through mentor coordination groups managed by the district mentor coordinator (Appendix L). This approach ensured that invitations were communicated through recognised institutional channels and reached participants who were actively or previously involved in the programme. The invitation message included a brief explanation of the study's purpose, a participant information sheet, and a link to the informed consent form hosted on the Zoho platform. Participation was voluntary, and only individuals who returned signed consent forms (Appendix M) were subsequently provided with access to the online survey.

questionnaire. This procedure ensured that ethical requirements were fulfilled prior to data collection.

Selection of semi-structured interview participants

From the broader group of survey respondents, purposive sub-sampling was undertaken to select participants for in-depth, semi-structured interviews. This process was designed to capture diversity across geographic regions and levels of professional experience.

ECE Teachers

The recruitment aimed to engage 12 teachers, with three selected from each of the four regions (Regions I–IV) in Kupang District. Participant selection was informed by responses to the online survey, particularly the personal information section. Both beginning teachers and experienced teachers had the opportunity to participate in the semi-structured interview. Beginning teachers were defined as those with a minimum of one to two years of teaching experience at the time of data collection, and actively participated in the ECE teacher meetings. Experienced teachers were those who had participated in the University of Waikato–facilitated mentoring training in 2018 and 2019 and regularly attended ECE teacher cluster meetings. From each region in Kupang District, three teachers were selected, comprising one beginning and two experienced teachers. In total, 12 ECE teachers were selected across the four regions.

Eligible teachers identified from the online survey results were invited to participate via WhatsApp (see Appendix K). The first three respondents from each region who met the selection criteria were included in the study. If no response was received within seven days, reminder messages were sent. In regions with fewer eligible teachers or where the selected teachers were not responding, additional participants were recruited from other regions to reach the intended total sample size.

Mentors

The selection of mentors followed the teacher selection process. Only mentors who were associated with the sub-districts of the selected teachers were considered eligible for the interview. In other words, mentor participation was contingent upon the prior selection of

teachers from their respective regions and sub-districts. This ensured alignment between teacher and mentor data within the same ecological and organisational contexts.

Twelve mentors were selected, with three from each of the four regions, mirroring the regional structure used for teachers. Within each region, two experienced mentors (serving since 2017) and one novice mentor (commencing in 2020) were selected. Experienced mentors were required to meet two additional criteria beyond years of service:

1. Participation in the 2018–2019 University of Waikato mentoring training; and
2. Have been in the mentoring role for more than 3 years.

Novice mentors were defined as those who began their mentoring roles in 2020 and had not participated in the earlier mentoring training cycle.

Thus, while mentor selection followed the same regional distribution as teacher selection, it incorporated additional professional criteria related to training and leadership responsibilities. This approach ensured that mentors selected for interviews were not only contextually aligned with participating teachers but also represented varying levels of mentoring experience and professional engagement.

Invitations and consent forms (see Appendices L and M) were distributed via WhatsApp, with a 7-day response period to confirm participation. To address access challenges, particularly in rural areas with limited mobile data and internet connectivity, participants were offered a modest stipend (approximately NZ\$10 or IDR 100,000) to support mobile data costs.

This layered sampling strategy ensured representation across regions, experience levels, and professional roles, supporting a nuanced examination of mentoring practices across multiple ecological levels.

The Government and Development Agencies interviews

Ten potential participants were invited to semi-structured interviews (see Table 7). These potential participants comprise four policymakers (government representatives) and six early childhood/education specialists from development agencies. These individuals were selected

based on their leadership roles and direct involvement in the planning and implementation of the HI-ECD mentoring programme.

Government participants represented different administrative levels: two directors from the Ministry of Education, Culture, Research, and Technology (MoECRT) based in Jakarta; one head of office from the Kupang district government; and one village head from Kupang District. Development agency participants included a Task Team Leader, programme coordinators, ECD specialists, education specialists, an ECD expert, and an office manager, with offices mostly located in Jakarta or Kupang District.

Table 7

Potential Semi-Structured Interview Participants From the Stakeholders

Organisation	Number of participants	Location (mode of communication)
Ministry of Education, Culture, Research and Technology (MoECRT)	2	Jakarta (Zoom)
Kupang District Government	1	Kupang (Zoom)
Village government	1	Kupang (Zoom)
Development agency	3	Jakarta (Zoom)
	2	Washington, D.C. (Zoom)
	1	Kupang (Zoom)
	1	Jakarta (Zoom)
Total	10 online interviews	

Potential participants received formal invitation letters and informed consent forms via email or through the Zoho application (see Appendices M and P). Interview appointments were arranged individually by phone to accommodate participant availability. All potential participants agreed to participate in the semi-structured interviews. Interviews were conducted remotely via Zoom or phone call and were audio-recorded with participants' permission. Each interview lasted approximately 40 minutes (see Appendices Q to Z for the interview questions).

This multi-level representation enabled analysis across macro-, exo-, and meso-level contexts within Bronfenbrenner's bioecological framework. National-level actors provided

perspectives on policy intent, programme design, and institutional coordination. District- and village-level representatives reflected on local implementation realities. Development agency staff offered insights into programme funding, technical assistance, training provision, and monitoring processes.

Data generation methods

This study employed three complementary methods of data generation: an online survey, semi-structured interviews, and document analysis. The use of multiple methods provided different forms of evidence and perspectives on the ECE teacher mentoring programme, supporting a multi-level ecological examination of the case. Each method contributed differently to addressing the research questions and to developing a contextualised understanding of mentoring relationships and practice.

Online survey

The online survey was designed to generate structured, district-wide data on teachers' and mentors' professional backgrounds, mentoring engagement, and perceptions of programme impact. Two parallel but role-specific questionnaires were developed: one for ECE teachers (Appendix I) and one for mentors (Appendix J). The surveys were designed in Zoho and took approximately 15 minutes to complete. Each questionnaire included an embedded informed consent form, which participants were required to read and agree to before proceeding. Participants responded by selecting one or multiple applicable options and ranking a series of statements based on their experiences with the mentoring programme. Both instruments began with informed consent statements and demographic questions, followed by sections aligned with the study's key constructs: professional learning, mentoring practices, pedagogical change, leadership, and perceived child outcomes. All survey questions were in *Bahasa Indonesia*, Indonesia's national language and a widely understood language across all provinces, enabling communication with participants from diverse linguistic backgrounds.

The teacher questionnaire included items on educational qualifications, years of teaching experience, participation in mentoring training facilitated by the University of Waikato (2018–2019), frequency of mentor visits, involvement in HI-ECD cluster meetings, and perceived professional development supports for shifting towards child-centred pedagogy. Several items required participants to select multiple responses (e.g., types of mentor support

received, changes observed in children's behaviour, and contributions of mentors in mobilising village government support). These questions were designed to capture patterns of implementation and perceived pedagogical transformation at the classroom level.

The mentor questionnaire mirrored several teacher items to enable comparative analysis but included additional questions specific to mentoring roles. These included prior teaching background, duration in mentoring roles, coverage area, number of teachers supported, facilitation of cluster meetings, ranking of mentoring activities (e.g., observation, feedback, modelling, reflective conversations), and coordination with village government actors. Ranking questions were included to identify mentors' prioritised practices, while multiple-response items captured the multidimensional nature of mentoring work.

Most survey items were closed (multiple-choice, frequency scales, and ranking tasks), allowing for descriptive statistical analysis. The inclusion of comparable items across the teacher and mentor questionnaires enabled descriptive comparisons of reported mentoring frequency, forms of engagement, cluster meeting facilitation, and perceived pedagogical impact. These descriptive patterns provided contextual information for the subsequent qualitative analysis. The complete survey instruments are provided in Appendices I and J to ensure transparency and allow for critical appraisal of the alignment between the research questions and data generation tools.

I also remained attentive to potential power dynamics between myself, as a researcher with previous affiliations in the education sector, and the participants, especially the teachers. To mitigate this, I ensured that participation was entirely voluntary, that participants were assured of confidentiality, and that all communications emphasised the non-evaluative nature of the study. I presented myself not as an evaluator but as a researcher seeking to learn from their experiences. I was particularly mindful of language, tone, and framing during both written invitations and interviews, in order to create a space where participants felt safe and respected in sharing their views.

As Legaspi and Henwood (2017) note, online questionnaires offer several advantages: they are convenient for respondents to access at any time and place, cost-effective compared to printed surveys, and easy for researchers to create using a variety of question types and features. However, challenges include lower response rates, participant fatigue, and

technological barriers, particularly in contexts with unstable internet access. These challenges were particularly relevant in parts of Kupang District, especially Region IV, a remote area bordering Timor-Leste, where participants often face high connectivity costs and limited internet infrastructure.

To mitigate barriers to participation, the survey was intentionally brief, taking no more than 15 minutes to complete. The number of targeted participants was considered realistic in light of logistical and contextual constraints, especially considering the rural and underserved nature of the area. Additionally, the survey link remained open for 30 days, allowing participants the flexibility to respond when internet access was available, such as during travel to the city for supplies or when attending district-level meetings. These strategies were designed to maximise participation while remaining mindful of the respondents' living conditions and limited connectivity.

The online survey served two primary purposes: first, to gather descriptive data on participants' professional experiences, perceptions of mentoring, and institutional support; and second, to inform the selection of interview participants. At the end of the questionnaire, participants were asked to indicate whether they were willing to be contacted for a follow-up interview. This allowed me to identify individuals who not only met the inclusion criteria but also expressed interest in contributing more in-depth narratives for the semi-structured interview phase.

Semi-structured interviews

To generate in-depth qualitative data, I conducted semi-structured interviews (Brinkmann, 2015; Kvale, 2009) with key stakeholders, ECE teachers, mentors, policymakers, and representatives from development agencies, who were directly or indirectly involved in the HI-ECD mentoring programme. This method balanced structure and flexibility, ensuring core themes related to the research questions were consistently explored while allowing participants to elaborate on issues they considered meaningful. All interviews were conducted in *Bahasa Indonesia*, Indonesia's national language and a widely understood language across all provinces, enabling communication with participants from diverse linguistic backgrounds.

Semi-structured interviews are particularly well-suited to qualitative inquiry because they enable researchers to ask both open-ended and closed questions, allowing participants to

describe their experiences in their own terms (Galletta, 2012). Unlike structured interviews, this approach supports adaptive dialogue, allowing the researcher and participant to co-construct meaning through interactive questioning (McIntosh & Morse, 2015). Galletta (2012) further explains that semi-structured interviews are “sufficiently structured to address specific topics related to the phenomenon of study while leaving space for participants to offer new meanings to the study focus” (p. 24).

Semi-structured interviews were conducted to generate in-depth qualitative data on the design, implementation, and impact of the ECE teacher mentoring programme across multiple levels of the education system. While the online survey provided descriptive patterns of participation and practice, the interviews enabled exploration of participants’ lived experiences, relational dynamics, institutional processes, and systemic influences.

Separate interview protocols were developed for three participant groups:

1. ECE teachers (Appendix N),
2. Mentors (Appendix O), and
3. Policy and programme stakeholders (Appendices Q–Z).

The semi-structured format allowed consistency in thematic focus while enabling flexibility to probe emergent issues and contextual nuance.

Interview with ECE teachers

The teacher interview guide was structured around four interconnected domains: professional identity, mentoring relationships, pedagogical transformation, and community-level influence. The opening questions invited teachers to describe their teaching experiences, motivations, and perceived advantages and challenges of working in early childhood education. These questions established professional context and illuminated teachers’ identities within the microsystem of the classroom.

Subsequent questions focused on mentoring support and relational dynamics. Teachers were asked how mentors assisted them in their centres, how mentoring contributed to improvements in their teaching practice, and whether tensions or challenges emerged within the relationship. This enabled examination of trust, authority, negotiation, and emotional dimensions of mentoring interactions. To explore pedagogical change, teachers were asked to reflect on the extent to which mentoring influenced their teaching strategies, particularly in

shifting from classical methods towards child-centred pedagogy. They were invited to provide specific classroom examples and to describe observed changes in children's learning and development.

Importantly, the protocol extended beyond classroom practice to examine broader ecological layers. Teachers were asked whether mentors influenced village-level decision-making and parental engagement. This allowed analysis of how mentoring intersected with local governance structures and community participation. The final question invited teachers to articulate their visions for the future of mentoring practice, generating forward-looking perspectives on sustainability and programme refinement.

Interview with mentors

The mentor interview guide explored mentoring identity, practice, leadership, and systemic contribution. Initial questions examined mentors' educational backgrounds, prior teaching experiences, and motivations for becoming mentors. These reflections illuminated how personal trajectories shaped mentoring philosophies and approaches.

Mentors were asked to define what constitutes a successful mentoring relationship and to describe in detail their experience mentoring an individual teacher. These narrative accounts enabled close examination of mentoring processes, including observation, feedback, modelling, and reflective dialogue.

Several questions addressed mentoring as collective professional learning leadership. Mentors described the structure and rationale of HI-ECD cluster meeting agendas and reflected on whether the induction and training they received sufficiently prepared them for their roles.

To capture systemic impact, mentors were asked to assess the influence of mentoring on:

- Teachers' pedagogical development,
- ECD managers' capacities,
- The formation of learning communities within Kupang District.

The final questions explored mentoring competencies, essential skills, strategies for effectiveness, and visions for future programme development. Together, these questions

positioned mentors not only as classroom coaches but as meso-level leaders and brokers within the professional learning ecosystem.

Interview with the government and development agencies

The interviews with stakeholders explored the rationale for the mentoring programme, governance structures, funding mechanisms, coordination between government and development partners, perceived programme outcomes, sustainability challenges, and future policy directions (see Appendix Q-Z for interview questions). Their perspectives provided critical contextual depth, allowing cross-verification with teacher and mentor experiences and strengthening the ecological analysis of the mentoring system.

Although interview protocols were tailored to each institutional role, several cross-cutting thematic domains structured these interviews:

1. **Programme Development and Institutional Involvement**

Stakeholders were asked about their involvement in the Kupang mentoring programme and the processes through which it was conceptualised and developed. Questions explored collaboration between national directorates, UNICEF, MFAT, the World Bank, training agencies, local NGOs, and district authorities. These discussions illuminated governance arrangements, partnership dynamics, and policy alignment.

2. **Implementation and Monitoring**

Participants were invited to describe how the mentoring programme was implemented and monitored at national, district, and village levels. Questions examined supervision mechanisms, reporting structures, funding flows, coordination processes, and adaptation strategies.

3. **Benefits and Impact**

Stakeholders reflected on observed benefits for:

- Children,
- ECE Teachers,
- Mentors,
- ECD managers,
- Village communities,
- Government institutions,
- NGOs and international agencies.

These perspectives provided insight into perceived system-level transformation beyond classroom practice.

4. Challenges and Barriers

Participants were asked to identify challenges encountered during implementation, including coordination issues, sustainability concerns, capacity gaps, funding constraints, and intergovernmental complexities. They were also invited to explain how these challenges were addressed.

5. Professional Learning and Mentoring Models

National-level actors were asked whether similar mentoring or coaching approaches existed elsewhere in Indonesia and how they compared to the Kupang model. Development partners reflected on lessons learned from previous mentoring initiatives and on the feasibility of scaling or replicating them.

6. Sustainability and Future Vision

All stakeholders were invited to articulate their vision for future mentoring programmes. These forward-looking questions generated insight into policy reform trajectories, institutionalisation potential, and long-term strategic planning.

Common Interview Procedures

Across all participant groups, interviews were audio-recorded with consent and ranged from 40 to 75 minutes in duration, depending on each participant's role and availability. After transcription, the transcripts were shared via WhatsApp or email, and participants were invited to review, edit, comment on, or withdraw any part of the transcript within seven days of receipt. This transcript validation process generally requires an additional 20–25 minutes per participant. The estimated total time commitment thus ranged from 60 minutes (for policy-makers) to 90–100 minutes (for teachers and mentors).

Documents

As Merriam (2001) argues, documents represent an important source of data in qualitative research. They include written or printed records produced either prior to the study (e.g., policies, manuals, official reports) or during its implementation (Lodico et al., 2010). Importantly, such documents are typically created independently of the researcher's involvement, which enhances their credibility and value as supplementary sources of evidence (Bowen, 2009). Document analysis therefore, provides access to institutional

intentions, formal structures, and historical developments that may not be fully captured through interviews or surveys.

In this study, I collected and reviewed a range of documents related to mentoring and professional development for early childhood teachers. These materials were sourced from institutions directly involved in the design and implementation of the HI-ECD mentoring programme, including the Ministry of Education and Culture (MoEC), the Ministry of Foreign Affairs and Trade of New Zealand (MFAT), the World Bank, UNICEF, and the Kupang District Education Office (DEO). The documents examined included monitoring and evaluation reports, policy briefs, programme design documents, training modules, operational guidelines, and implementation reports.

In addition, I analysed publicly available materials from the official website of the Early Childhood Education (ECE) Directorate, including the HI-ECD mentoring modules and replication guidelines. These resources provided insight into the formal design, objectives, and expected outcomes of the mentoring initiative, as well as the strategies intended to support scaling and institutionalisation.

Collectively, the documentary materials provided macro- and exosystem perspectives on the mentoring programme, illuminating governance structures, partnership arrangements, accountability mechanisms, and sustainability plans. Document analysis also allowed comparison between formal policy intentions and the lived experiences reported by teachers, mentors, and stakeholders. In this way, documentary evidence complemented and enriched the survey and interview data, contributing to a more comprehensive and contextually grounded analysis of the HI-ECD mentoring programme.

Data analysis procedures

This section outlines the procedures used to analyse data generated through the online survey, semi-structured interviews, and document review. Consistent with the study's qualitative instrumental case study design, the analysis prioritised participants' meanings, experiences, and interpretations while drawing on descriptive survey information and documentary evidence to contextualise those accounts. The analytical procedures were designed to maintain coherence between the research questions, social constructivist epistemology, and bioecological theoretical framework.

Overview of analytic approach

The analysis was predominantly qualitative and interpretive, complemented by descriptive analysis of the online survey data. Survey responses were summarised using frequencies and percentages to describe participant characteristics and identify broad patterns in mentoring participation and practice. These descriptive findings provided contextual information for interpreting the qualitative data rather than constituting a separate quantitative analytic strand. Semi-structured interview data formed the primary source for in-depth analysis and were examined using reflexive thematic analysis informed by Braun and Clarke (2006, 2022). Documentary evidence was analysed iteratively and used to contextualise and extend participants' accounts, particularly in relation to institutional, policy, and programme-level influences. The resulting themes were subsequently interpreted through Bronfenbrenner's bioecological framework.

Stages of analysis

Stage 1: Descriptive analysis of survey data

The first stage involved descriptive analysis of responses to the online questionnaires using simple frequencies and percentages (Cohen et al., 2018). The purpose of this analysis was not statistical inference or hypothesis testing, but to provide contextual information about participants' demographic and professional characteristics, mentoring frequency, training participation, and reported experiences of mentoring. These descriptive patterns also helped identify issues that warranted deeper exploration through the interview data.

This stage served two purposes:

1. To establish a contextual background for the qualitative findings.
2. To identify patterns and inconsistencies that warranted deeper exploration in interviews.

Stage 2: Thematic analysis of interview data

The second and more substantive stage involved thematic analysis of semi-structured interview data, following Braun and Clarke's (2006, 2022) six-step process.

1. Familiarisation

All interviews were transcribed verbatim. I read and re-read transcripts multiple times while making initial analytic notes. This immersion allowed close engagement with participants' language and meanings. Below is an example of an interview question for a mentor. Question number 5: During your role as a mentor, what benefits and challenges did you encounter in your mentoring practices? followed by my initial notes on possible themes of the answer:

I am deeply grateful for the benefits I have experienced since joining the mentoring programme. The programme has contributed to significant progress in our centre and has made teaching and learning more effective. Previously, we operated only two to three days per week; however, we now run classes five days a week. This improvement has been supported by ongoing training on developing weekly lesson plans (RPPH) and semester programmes (Prosem), as well as the introduction of structured assessment practices using checklists. Before participating in the mentoring programme, we did not conduct systematic assessments, as there were no formal report cards, and children simply progressed to the next level without documented evaluation.

There have also been broader improvements beyond classroom instruction. Some of my colleagues have enrolled in higher education programmes, motivated by the encouragement and support I provided. Teachers are now more active and engaged in their professional responsibilities and contributions to the centre. In addition, we have strengthened our financial independence by regularly collecting membership contributions, which has reduced our reliance on village funding for supplementary meals (PMT). These meals are now supported through our collective contributions

Notes:

1. Professional Growth and Teaching Improvement
2. Systematic change in assessment practices
3. Motivation and capacity building
4. Strengthened collective responsibility and sustainability

2. Generating initial codes

Coding was conducted manually and line-by-line. Both descriptive and interpretive codes were applied. For example:

Quote	Participant	Initial Code	Theme
I don't see myself as a boss, but I need to have a little more experience than the teachers	Mentor 03	more experience or hierarchy	Perceived hierarchy
we are more like friends or family	Mentor 07	Relational or peer-based mentoring	Non-hierarchical mentoring relationships
Mentors come as companions	Teacher 06	Mentor as equal partner	Non-hierarchical mentoring relationships

The statement, “*I don't see myself as a boss, but I need to have a little more experience than the teachers*” (Mentor 03), was initially coded as more experience/hierarchy, later refined to **perceived hierarchy**. The quote, “*We are more*

like friends or family” (Mentor 07), was coded as relational mentoring or peer-based relationship. A teacher’s comment, “*Mentors come as companions*” (Teacher 06), was coded as mentor-as-equal-partner. These early codes illuminated a recurring pattern of **non-hierarchical mentoring relationships**.

3. Searching for themes

Codes were examined for broader patterns. For example:

- Codes such as *mentor-as-companion*, *not a boss*, and *like friends/family* were grouped under the emerging theme of **non-hierarchical, relational mentoring**.
- Codes related to funding disputes, lack of transparency, and conflicts involving BOP or grant funds were grouped under potential themes of **financial tension and transparency challenges**, particularly involving school leadership rather than mentor–teacher relationships.

4. Reviewing themes

During the reviewing phase, I examined whether the preliminary themes accurately represented patterned meanings across the dataset. For example, in analysing mentors’ responses to Interview Question 2 (“Tell me about the reason you decided to become a mentor?”):

		Qty	
Theme 1	Having experience as a teacher Having experience as a teacher Having experience as a teacher	3	Having experience as a teacher
Theme 2	Want to gain more experience Want to gain more experience Want to increase knowledge Want to increase knowledge	4	Building professional capacity through knowledge and experience
Theme 3	Aligned with educational background Aligned with educational background	2	Relevance with educational background
Theme 4	Concern that many ECE centres are still of low quality Desire to improve the standard of ECE in the community Feeling responsible to support struggling ECE teachers	3	Concern with the quality of ECE in their areas

In some cases, the initial theme labels remained unchanged because the codes were already conceptually coherent and consistent. For example, Theme 1 (Having experience as a teacher) and Theme 3 (Aligned with educational background) were retained with only minor refinement in wording. The coded extracts within these

themes were repetitive and conceptually uniform, indicating strong internal consistency. Therefore, they did not require merging or substantial restructuring.

However, other themes required re-clustering and consolidation. For instance, in Theme 2, the initial codes included ‘wanting to gain more experience’ and ‘wanting to increase knowledge’. Although phrased differently, these codes reflected a shared underlying motivation related to professional growth. During the reviewing process, these overlapping codes were merged and refined into the broader theme ‘Building professional capacity through knowledge and experience’, which more accurately captured the conceptual thread linking them.

Similarly, Theme 4 initially contained several related but differently worded codes, such as concern that many ECE centres are still of low quality, a desire to improve the standard of ECE in the community, and feeling responsible for supporting struggling ECE teachers. While these statements varied linguistically, they all reflected a common orientation toward improving ECE quality at the local level. These were therefore collapsed into the overarching theme ‘Concern with the quality of ECE in their areas’.

This iterative process of retaining, merging, collapsing, and re-clustering themes strengthened conceptual clarity and ensured that the final themes represented patterned meanings rather than surface-level phrasing differences. It also enhanced analytical coherence by reducing redundancy while preserving the depth of participants’ motivations.

5. Defining and naming themes

Themes were clearly defined in relation to the research questions. This process resulted in four overarching themes:

- Conceptions of Mentoring
- Mentoring Practices
- Impact of Mentoring
- Systemic Enablers and Barriers within the Mentoring Bioecology

6. Producing the report

Illustrative excerpts were selected to represent each theme. These were then interpreted in dialogue with relevant literature and Bronfenbrenner's bioecological theory.

This thematic analysis combined inductive and deductive approaches (Fereday & Muir-Cochrane, 2006). Inductive coding allowed insights to emerge directly from the raw data, while deductive coding was informed by pre-existing theoretical constructs, particularly educative mentoring practices and the bioecological systems theory.

Stage 3: Analysis of documentary data

Documents were analysed through iterative reading and coding to identify references to mentoring objectives, governance arrangements, monitoring structures, professional learning systems, and sustainability plans. Documentary data were compared with interview findings to identify alignment or divergence between policy intentions and lived practice. Rather than generating separate themes, documentary evidence was integrated into existing thematic categories, particularly within the theme of systemic enablers and barriers.

Stage 4: Applied bioecological (PPCT) system theory

Bronfenbrenner's (2005) bioecological systems theory provided a second-level analytic lens. After thematic analysis was completed, themes were mapped onto bioecological levels to examine how mentoring operated within and across layered systems:

- **Microsystem:** e.g., mentor–teacher relationships; classroom practice.
- **Mesosystem:** e.g., professional learning communities, cluster meetings; collaboration between teachers, mentors, and parents.
- **Exosystem:** e.g., district-level management, funding decisions, and monitoring systems (by development agencies and district government).
- **Macrosystem:** e.g., national ECE policy frameworks; institutional mandates, donor strategies and priorities; cultural norms regarding hierarchy and leadership.
- **Chronosystem:** shifts over time, including the transition after donor funding ended and adaptations during the COVID-19 pandemic.

This bioecological mapping enabled analysis of mentoring not only as an interpersonal process but as a systemically embedded reform strategy.

Ensuring trustworthiness

To enhance the trustworthiness of this study, I drew upon Lincoln and Guba's (1985) criteria for evaluating qualitative research: credibility, transferability, dependability, and confirmability. To support credibility, I used data source cross-verification between online surveys and semi-structured interviews, enabling a more nuanced interpretation of mentoring experiences through diverse forms of participant engagement. I also employed thick description in the presentation of findings, using contextual detail and verbatim excerpts to provide transparency in how meanings were constructed (Tracy, 2010).

Dependability and confirmability were addressed by maintaining an audit trail that documented key methodological decisions, coding strategies, and analytic processes throughout the study. I kept detailed records of coding decisions and maintained analytic memos during theme development. I conducted member checking by sending the transcripts of all interview participants via WhatsApp; two participants added new information on the transcripts, while other participants signed the transcript release form. Credibility was further supported through the inclusion of direct quotations and contextual illustrations in the analysis chapter, allowing readers to assess the resonance of the findings. Finally, I acknowledge that transferability is not a goal of qualitative research in the conventional sense. However, providing sufficient contextual detail enables readers to determine whether the findings may apply to their own settings (Lincoln, 1985; Merriam, 2009).

Ethical considerations

This research adhered to the Ethical Conduct in Human Research and Related Activities Guidelines developed by the University of Waikato (2008). It received ethical approval from the Faculty of Education Ethics Committee (FEDU030/21), along with formal research permits from both the East Nusa Tenggara (NTT) Provincial Government and the Kupang District Government. The study was designed to minimise any potential risks and avoid harm to participants.

Participation in this study was entirely voluntary, as outlined in the information sheets (Appendices K, L and P) and consent forms (Appendix M). To mitigate any perception of coercion, I consistently reiterated throughout the recruitment process that participation would

have no impact on individuals' job performance, leadership evaluations (for policymakers), salary, or access to government support (particularly for teachers and mentors).

Informed consent and confidentiality

The online survey was voluntary; it was not anonymous, as participants were asked to provide identifiable information such as their name, teaching experience, and sub-district location. Similarly, teachers, mentors, and policymakers who participated in interviews were personally known to me and therefore not anonymous. To address this, I maintained strict confidentiality throughout the research process. Pseudonyms and participant codes were used in transcripts, data analysis, and dissemination. For national-level policymakers, the information sheets explicitly stated that anonymity could not be guaranteed due to the identifiable nature of their public roles.

Interview data were stored securely and were accessible only to my supervisors and me. Although I took all reasonable precautions, I informed participants that complete data security could not be guaranteed in the event of force majeure (e.g., natural disaster or technical failure). Any shared excerpts or quotes used in publications or presentations were carefully anonymised to protect participant identity wherever possible.

Participants were informed of their right to withdraw at any point during or after the interviews. For Zoom interviews, participants could end the session at any time. Following transcription, each participant received their transcript via email or WhatsApp and had seven days to review, amend, or withdraw any content. Identifying names mentioned during interviews were removed prior to data analysis. Raw data will be securely stored for up to five years before being permanently deleted.

Researcher positionality

Researcher positionality refers to the researcher's relationship to the research context, shaped by social identity, personal history, professional background, and power dynamics (Chin et al., 2022). In this study, I critically reflect on how my previous role, cultural identity, and professional positioning may have influenced participant interactions and data interpretation.

I previously served as a UNICEF Early Childhood Development (ECD) Officer in Kupang District, NTT Province, where I collaborated closely with many of the individuals who later became participants in this study. This prior role raised concerns about positionality, particularly regarding how participants might perceive my ongoing affiliation with UNICEF. There was a risk that this perception could influence their decision to participate or shape the nature of their responses. To help mitigate this, I explicitly communicated at the outset of each interaction that I was no longer affiliated with UNICEF and was conducting the study solely in my capacity as a doctoral researcher. I clarified that participation was entirely voluntary and unrelated to any past or future programme decisions or benefits.

This dual identity, as a former programme implementer and current academic researcher, positioned me within what qualitative scholars describe as a shifting partial insider/outsider (Chavez, 2008; Dwyer & Buckle, 2009). On the one hand, my familiarity with the context and pre-existing relationships with participants facilitated access, trust, and openness during data collection. On the other hand, my cultural, geographic, and religious background, as a Javanese-Muslim woman conducting research in predominantly Timorese-Christian communities, simultaneously marked me as an outsider. This complex and fluid positionality required ongoing reflexivity throughout the research process.

Such layered positioning brought both advantages and challenges. While prior rapport helped reduce social distance, it also raised ethical and methodological concerns, particularly around power dynamics and the potential for response bias. As someone who had previously held a leadership role, I was aware that some participants might feel obliged to participate, perceive the interview as an evaluation, or tailor their responses to what they believed I wanted to hear. To address this, I continuously reiterated the study's independence from UNICEF, emphasised confidentiality and the absence of any evaluative consequences, and adopted a reflective stance during interviews and analysis.

In practice, negotiating these power relations required attention to how I positioned myself during interviews. I allowed participants to choose a time and setting in which they felt comfortable. At the beginning of each interview, I clarified that the interview was not an assessment and that there were no right or wrong answers. I used open-ended, non-judgemental questions and encouraged participants to elaborate on experiences, including critical or negative views, without seeking to justify or defend the programme. These

practices helped me negotiate the power associated with my previous programme role while creating space for participants to speak from their own experiences.

Moreover, I recognise that even when participants strive for honesty, their responses are context-bound and temporally situated. As Merriam et al. (2001) note, participant accounts reflect ‘truths’ at a particular moment in time, and the researcher’s interpretations are inevitably shaped by their positional lens. I acknowledge that my former leadership role may influence how I perceive and represent their narratives. These dilemmas underscore the importance of reflexivity, transparency, and methodological integrity.

By documenting my positionality and the relational dynamics that unfolded in the field, I aim to provide an honest account of how knowledge was co-constructed in this study. Rather than framing myself as either an insider or an outsider, I embrace the in-between space as a site of complexity, humility, and critical awareness. Ultimately, my hope is that this reflexive stance contributes to the ethical and epistemological integrity of the research.

The voices of my research participants offer valuable insights into both the benefits and challenges encountered during the implementation of the mentoring programme in Kupang. Some accounts affirmed what was already known, while others surfaced difficult or previously unspoken realities. As Merriam et al. (2001) point out, the question of whether participants will “tell the truth” is complex, given that there is “no single truth or reality independent of the knower” (p. 414). Rather than seeking fixed truths, this study acknowledges the subjective and situated nature of knowledge shared by participants. In recognising this, I remain aware that my interpretations are shaped by my position as a researcher, neither fully inside nor outside the setting, but navigating the space in between.

Summary

This chapter has outlined the methodological foundations and research procedures underpinning this doctoral study. Situated within an interpretive paradigm and informed by social constructivism, the research adopted a case-based design to explore how mentoring practices are experienced and enacted within the ECE teacher mentoring programme in Kupang District. Bronfenbrenner’s theoretical perspective informed both the research design and analytic strategy, positioning mentoring as a relational process embedded within broader social and institutional contexts.

Multiple methods, including online surveys, semi-structured interviews, and document analysis, were employed to capture diverse perspectives. Survey data were analysed descriptively to identify contextual patterns, while reflexive thematic analysis of interview and documentary data enabled in-depth interpretation of participants' experiences. Issues of research trustworthiness and ethical conduct were carefully considered through strategies such as member checking, reflective journaling, and a clear audit trail to ensure credibility and integrity. The integration of inductive insights with theoretically informed analysis strengthened the coherence and rigour of the study. With these methodological foundations established, the next chapter presents the empirical findings, examining how mentoring is enacted and negotiated in practice within the Kupang District programme.

CHAPTER V: FINDINGS – PART 1

Introduction

Building on the methodological foundations outlined in the previous chapter, this chapter presents the findings of my study as they emerged from the thematic analysis of interviews, surveys, and documentary data. This chapter constitutes the first part of the findings and is organised according to Bronfenbrenner's bioecological PPCT model (Process–Person–Context–Time). It begins with an overview of the research participants, including survey respondents (ECE teachers and mentors) and semi-structured interview participants (teachers, mentors, and government and development agency stakeholders). The presentation of findings is structured around the first three components of the PPCT model. The first component, Process, refers to proximal processes, the recurring interactions and relational exchanges that shape mentoring relationships, rather than to the procedural steps of mentoring itself. The second component, Person, presents the characteristics of mentors and mentees from multiple perspectives. The third component, Context, focuses on the microsystem and mesosystem levels, highlighting relational dynamics, enabling factors, barriers, and perceived benefits within mentoring relationships. The broader contextual influences of the exosystem, macrosystem, and chronosystem are presented in Chapter V: Findings – Part 2.

Overview of research participants

This section presents a descriptive statistical overview of the research participants. It begins with findings from online surveys administered to early childhood education (ECE) teachers and mentors, outlining key demographic characteristics and patterns related to mentoring implementation in Kupang District. This is followed by an overview of the group interview participants, including teachers, mentors, and policy and programme stakeholders, with attention to their demographic profiles and roles within the mentoring programme.

Online survey participants: ECE teachers

A total of 248 ECE teachers were invited to participate in the online survey, distributed via WhatsApp. The participant list was generated in collaboration with the Kupang District

Office, drawing on administrative records. Of those invited, 201 teachers completed the survey, resulting in a response rate of approximately 81%.

As shown in Table 8, the survey respondents (N = 201) represented a wide range of genders, ages, educational backgrounds, teaching experience, and participation in mentor-teacher training. The survey respondents were predominantly female, comprising 95.02% (n=191) of the sample, while male teachers accounted for only 4.98% (n=10). This distribution reflects the strongly gendered composition of the early childhood education (ECE) workforce in the region.

Table 8
Demographic Characteristics of an Online Survey for Teachers

Characteristics	Category	n	%
Gender	Female	191	95.02
	Male	10	4.98
Age (years)	< 25	17	8.46
	25-34	79	39.30
	35-44	72	35.82
	≥45	33	16.42
Highest Educational Qualification	Senior Secondary School	121	60.20
	Diploma (D1-D3)	5	2.49
	Bachelor's degree	75	37.31
	Master's degree	N/A	N/A
Years of Experience as ECE teachers	Less than 1 year	9	4.48
	1-2 years	17	8.46
	2-4 years	32	15.92
	5-10 years	95	47.26
	More than 10 years	48	23.88
Participation in mentoring training	More than three times	30	14.93
	Three times	17	8.46
	Twice	32	15.92
	Once	34	16.92
	Never	88	43.78
Participation in the ECE teacher cluster meeting/working group	Always	45	22.39%
	5-6 times/year	60	29.85%
	3-4 times/year	68	33.83%
	Never	28	13.93%

In terms of age, the majority of respondents were within the productive working-age range. Teachers aged 25–34 years constituted the largest group (39.30%, n = 79), followed closely by those aged 35–44 years (35.82%, n = 72). A smaller proportion were aged 45 years and above (16.42%, n = 33), while 8.46% (n = 17) were aged under 25 years. This distribution indicates a relatively mature workforce, with most teachers in early to mid-career stages.

Regarding educational qualifications, most respondents held a senior secondary school qualification (60.20%, n = 121), while 37.31% (n = 75) had obtained a bachelor's degree. Only a small proportion held a diploma (2.49%, n = 5), and none reported holding a master's degree. The data suggest that although a substantial number of teachers possess undergraduate qualifications, the majority remain qualified at the secondary level.

Consistent with the age profile, nearly half of the respondents (47.26%, n = 95) had between five and ten years of teaching experience. A further 23.88% (n = 48) reported more than ten years of experience, indicating that over 70% of the sample had at least five years of professional experience. Smaller proportions had two to four years (15.92%, n = 32), one to two years (8.46%, n = 17), or less than one year of experience (4.48%, n = 9). Overall, the sample reflects a predominantly experienced group of ECE teachers.

Despite this level of professional experience, participation in formal mentoring training was uneven. While some teachers reported multiple engagements, 14.93% (n = 30) had participated more than three times, and 8.46% (n = 17) had participated three times, 43.78% (n = 88) indicated that they had never participated in formal mentoring training. The remainder had participated once (16.92%, n = 34) or twice (15.92%, n = 32). Monthly cluster meetings were a key component of the programme, intended to provide peer learning and professional networking. Participation rates were high, with 173 teachers (86%) reporting attendance at these sub-district level meetings. Among them, 22.39% attended regularly, 29.85% attended five to six times per year, and 33.83% attended three to four times per year. However, 13.93% of teacher respondents reported never participating in cluster meetings. These findings suggest that although the workforce is largely experienced, structured mentoring training has not been universally accessed.

During the implementation of the ECE teacher mentoring programme, the development partner (a local NGO in Kupang) grouped the 24 government-defined sub-districts into four

operational regions (Regions I–IV). These regional groupings are not official government administrative units; rather, they were created for programme coordination, mentoring supervision, and logistical management. Therefore, the term ‘region’ in this study refers to programme-based clustering rather than formal administrative classification.

Table 9 presents the geographic distribution of survey participants across sub-districts in Kupang District (N = 201). Participants were drawn from all 24 sub-districts that are administratively recognised by the district government. This indicates full territorial representation across the district.

Table 9
Geographic Distribution of Participants (by Sub-District)

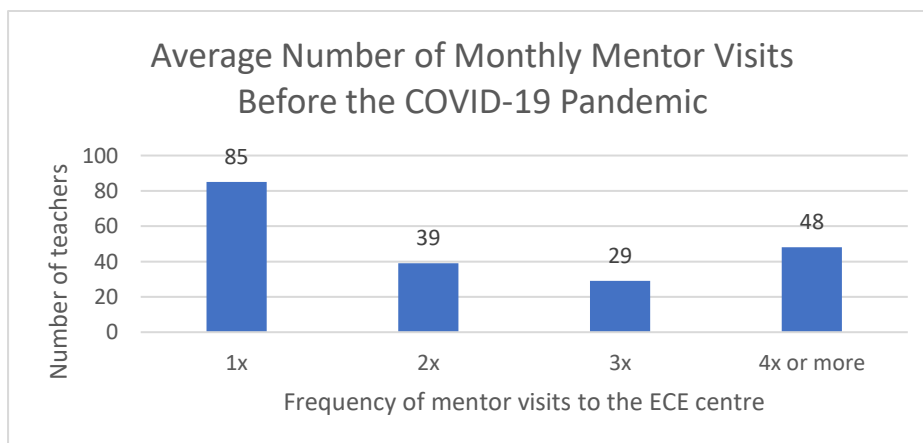
No	Sub-District	n	%	Region
1	Kupang Barat	12	6.00	Region I n = 68 (33,83%)
2	Kupang Tengah	21	10.50	
3	Semau Selatan	12	6.00	
4	Semau	8	4.00	
5	Nekamese	6	3.00	
6	Taebenu	9	4.50	
7	Fatuleu	8	4.00	Region II n = 46 (22,88%)
8	Fatuleu Barat	10	5.00	
9	Fatuleu Tengah	3	1.50	
10	Kupang Timur	16	8.00	
11	Amarasi	3	1.50	
12	Sulamu	6	3.00	
13	Amarasi Timor	8	4.00	Region III n = 52 (25,87%)
14	Amarasi Selatan	12	5.50	
15	Amarasi Barat	9	4.50	
16	Amabi Oefeto	6	3.00	
17	Amabi Oefeto Timur	7	3.50	
18	Takari	10	5.00	
19	Amfoang Barat Daya	4	2.00	Region IV n = 35 (17,41%)
20	Amfoang Barat Laut	6	3.00	
21	Amfoang Selatan	5	2.50	
22	Amfoang Tengah	9	4.50	
23	Amfoang Timur	6	3.00	
24	Amfoang Utara	5	2.50	

As shown in Table 9, participant distribution across the four programme regions was relatively balanced, though not equal. Region I accounted for the largest proportion of respondents (n = 68; 33.83%), followed by Region III (n = 52; 25.87%), Region II (n = 46; 22.88%), and Region IV (n = 35; 17.41%). While some variation is visible, all regions are substantively represented, supporting geographic diversity in the dataset. At the sub-district level, participation ranged from 3 to 21 respondents, with Kupang Tengah contributing the highest number (n = 21; 10.50%). Smaller sub-districts such as Fatuleu Tengah and Amarasi each contributed 3 participants (1.50%). This variation likely reflects differences in teacher population size, school distribution, and programme engagement intensity across sub-districts. Overall, Table 9 demonstrates comprehensive district-wide coverage while also illustrating how the mentoring programme’s operational structure overlays the formal administrative structure. This distinction is important for interpreting subsequent analysis that refers to Regions I–IV.

As per the mentors’ job description, all mentors were required to visit their respective ECE centres four times monthly. However, this did not materialise in many instances. Figure 9 shows that before the COVID-19 pandemic, most teachers received one mentor visit per month (n = 85), making it the most common frequency. A smaller number of teachers reported receiving two visits per month (n = 39) or three visits per month (n = 29). Notably, 48 teachers reported receiving 4 or more visits per month. Overall, the data suggest that while monthly mentoring was common, the intensity of mentor visits varied considerably across ECE centres.

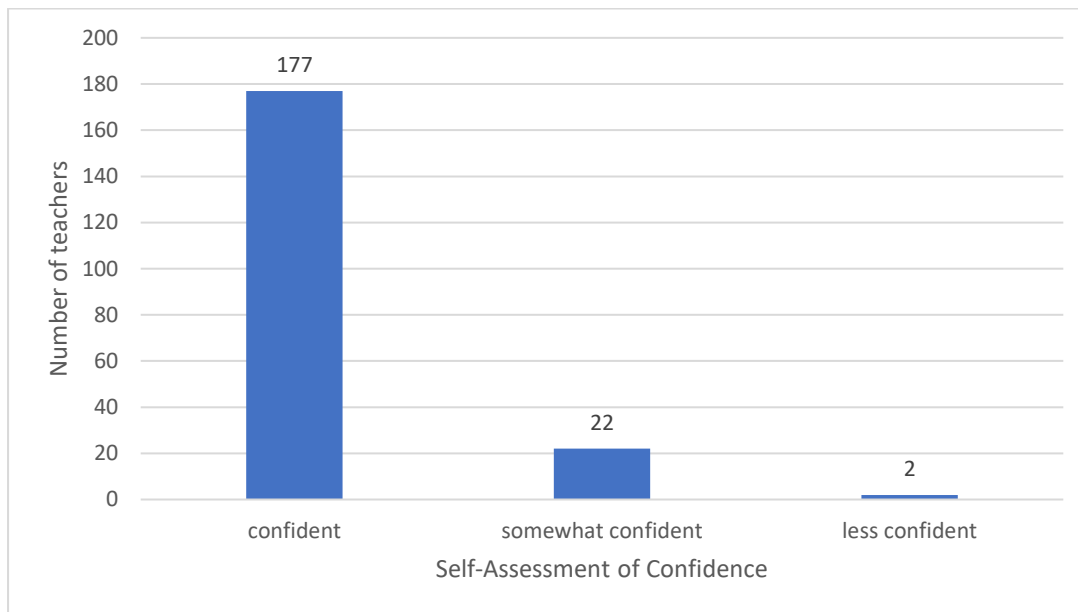
Figure 9

Average Number of Monthly Mentor Visits Before the COVID-19 Pandemic



One of the main objectives of the ECE teacher mentoring programme in Kupang was to enhance teachers' capacity to employ child-centred approaches. According to the survey results (see Figure 10), of the 201 teacher participants, 177 expressed confidence in using child-centred teaching practices, 22 felt somewhat confident, and only two reported feeling less confident.

Figure 10
Teachers' Confidence in Using a Child-Centred Approach



Overall, the online survey data indicate that the teacher respondents represent a predominantly female, experienced, and district-wide distributed ECE workforce, with varied levels of formal qualification and uneven access to structured mentoring training. While participation in cluster meetings was generally high and most teachers reported confidence in implementing child-centred approaches, the frequency and intensity of mentor visits varied considerably across centres. As a whole, these findings provide an important contextual foundation for understanding teachers' experiences within the mentoring programme. The following section presents the profile and characteristics of the online survey participants who served as mentors, offering a complementary perspective on the programme's implementation.

Online survey participants: Mentors

A total of 30 mentors were initially invited to participate in the survey. 33 mentors ultimately completed the survey, resulting in a response rate exceeding 100%. This occurred because three former mentors, who had officially resigned but remained in the programme communication group, also completed the survey. Given their continued relevance to the mentoring programme, their responses were retained for analysis.

As presented in Table 10, the survey respondents (N = 33) were predominantly female (72.7%), with males comprising 27.3% of the sample. Most mentors were aged 30–39 years (60.62%), followed by those aged 25–29 (27.3%), while a smaller proportion were aged 40 years and above (12.12%). Most mentor survey participants hold a bachelor's degree (93.9%), while a small proportion have completed postgraduate study (6.1%). Teaching experience varied considerably, ranging from less than one year to more than 10 years. More than half of the mentors reported experience teaching in early childhood education settings (57.58%), although some had worked across multiple educational levels. In terms of mentoring experience, over half of the mentors (57.57%) had served in mentoring roles for 3–4 years, while the remainder (42.42%) had been in the role for 1–2 years. Mentors were geographically distributed across Regions I–IV, indicating representation across the mentoring programme's operational areas.

Table 10

Demographic Characteristics of the Online Survey for Mentors

Characteristics	Category	n	%
Gender	Female	24	72.7
	Male	9	27.3
Age (years)	25-29	9	27.3
	30-39	20	60.62
	≥ 40	4	12.12
Highest educational qualification	Master's degree	1	3.03
	Bachelor's degree	32	96.97
Teaching experience	Less than 1 year	3	9.1
	1-2 years	8	24.2
	2-4 years	8	24.2
	5-10 years	4	12.1
	More than 10 years	9	27.3

	Never taught	1	3.0
Level of education – teaching experience	ECE (Pre-School)	19	57.58
	Basic Education (Elementary School)	6	18.18
	Junior Secondary	5	15.15
Duration in the mentoring role in Kupang District	1 – 2 years	14	42.42
	3 – 4 years	19	57.57
Geographic distribution of mentors by region (I – IV)	Region I	11	33.33
	Region II	7	21.21
	Region III	8	24.24
	Region IV	7	21.21

The number of teachers mentored varied (see Figure 11). While most mentors (14) reported working with 10-15 teachers, 12 mentors worked with more than 15. A smaller number supported between 4 - 9 teachers, and one mentor reported mentoring only 1 – 3 teachers.

Figure 11
Number of Teachers Mentored

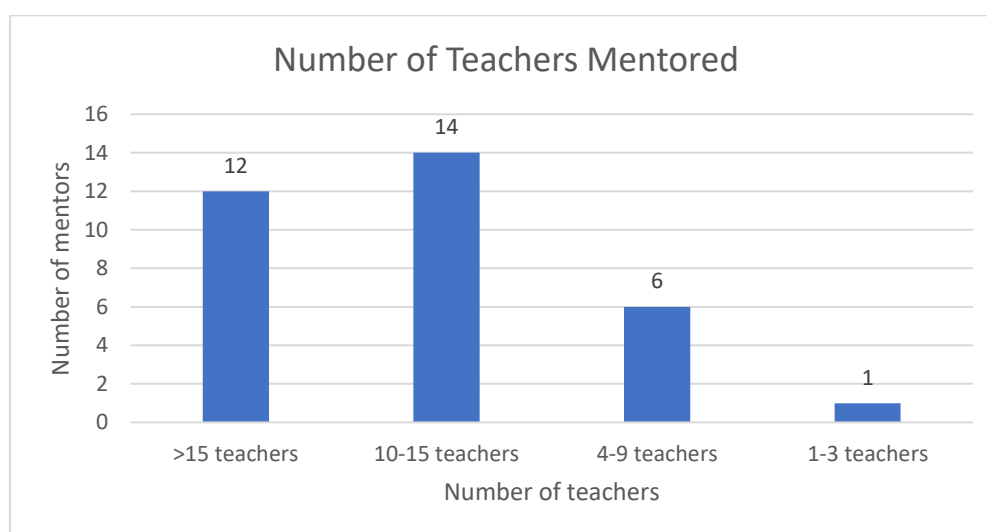
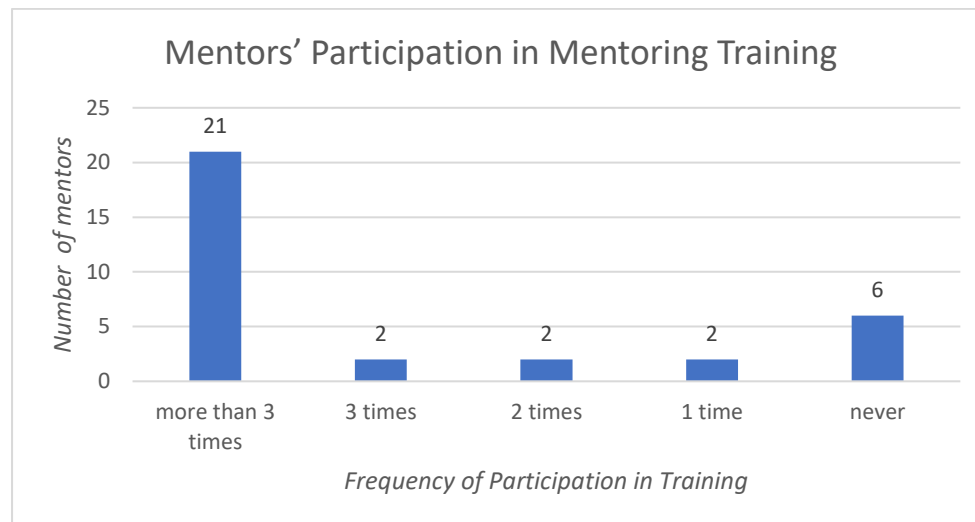


Figure 12 illustrates mentors' participation in mentoring training (N = 33). The majority of mentors (21) reported attending training more than three times, indicating a high level of repeated engagement in professional development activities. A small and equal number of mentors (2 each) attended training three times, two times, or once. Notably, six mentors reported never participating in mentoring training. Overall, while most mentors appear to

have substantial exposure to training, the presence of a group with no training highlights uneven participation in formal professional development within the programme.

Figure 12
Mentors' Participation in Mentoring Training



Before the COVID-19 pandemic, most mentors (24) visited ECE centres four times a month, while others visited two to three times a month. Mentors engaged with teachers through different modes of communication. Thirteen reported meeting exclusively face-to-face, another 13 combined face-to-face and online meetings, five used phone calls, and two relied mainly on online discussions during the pandemic period. Participation in training was also uneven: 21 mentors had attended more than three training sessions on early childhood and mentoring topics, six had attended three or fewer, and six had never received formal training. Mentors' confidence levels were generally high. Twenty-seven participants stated they felt very confident in their mentoring role, five reported being somewhat confident, and only one described themselves as less confident.

The data from the online survey for mentors suggests that while mentors are generally young, degree-qualified, and experienced in teaching, formal qualifications do not necessarily equate to specialised mentoring competence. Although most mentors (21 of 33) reported attending mentoring training more than three times, six had never participated in any training, and only small numbers attended one to three sessions, indicating uneven access to professional preparation. This uneven participation in mentoring training, particularly the presence of mentors with no formal preparation, contrasts with the overwhelmingly high self-reported

confidence levels, raising questions about how competence is defined and assessed within the programme. In addition, substantial caseloads (often more than 10–15 teachers per mentor) and broad geographic distribution may limit the depth and quality of mentoring interactions. Overall, the findings indicate a stable and confident mentoring workforce, but one that may face challenges related to training consistency, workload intensity, and quality assurance.

Semi-structured interview: ECE teachers

Twelve ECE teachers were selected from the broader survey sample of 201 teachers across 24 sub-districts in Kupang District. The interview participants represented diverse geographic locations, levels of experience, educational backgrounds, and degrees of engagement in professional development activities (see Table 11).

Table 11
Teacher Participant Demographics

No	Pseudonyms	Age	Educational background	Length of teaching experiences	Participation in the ECE mentor training	Participation in the ECE teachers' monthly cluster meeting
1	Teacher Ariel	38	High school	> 10 years	> 3 times	Always
2	Teacher Diana	34	High school	5 – 10 years	3 times	Always
3	Teacher Anna	39	Bachelor	2 – 4 years	Never	Always
4	Teacher Elsa	41	High school	> 10 years	> 3 times	Always
5	Teacher Belle	36	Bachelor	5 – 10 years	> 3 times	5 – 6 times a year
6	Teacher Moana	41	Bachelor	> 10 years	> 3 times	5 – 6 times a year
7	Teacher Jasmine	55	High school	5 – 10 years	3 times	Always
8	Teacher Mulan	35	Bachelor	5 – 10 years	> 3 times	5 – 6 times a year
9	Teacher Aurora	34	High school	5 – 10 years	> 3 times	5 – 6 times a year

10	Teacher Merida	55	Bachelor	5 – 10 years	Twice	5 – 6 times a year
11	Teacher Ticiana	47	Bachelor	> 10 years	> 3 times	Always
12	Teacher Megara	29	High school	2 – 4 years	Once	3 – 4 times a year

The teacher interviewees ranged in age from 29 to 55 years. The majority were female, reflecting the gender distribution in the wider survey sample. In terms of educational qualifications, seven held bachelor's degrees, while five were high school graduates. Their teaching experience varied considerably: four had more than 10 years of experience, six had between 5 - 10 years, and two had 2–4 years of experience. This variation allowed for comparison between beginning and more experienced teachers within the mentoring programme.

Participation in professional development activities also differed among the interview participants. Most had attended ECD training more than three times, although a small number reported limited or no participation. Engagement in monthly ECD cluster meetings was generally high: several teachers reported always attending, while others participated five to six times per year or three to four times annually. This diversity in professional engagement provided insight into how mentoring intersected with broader professional learning structures.

The semi-structured interviews invited teachers to reflect on their experiences of being mentored, perceived benefits and challenges, changes in pedagogical practices (particularly regarding child-centred approaches), and their perspectives on the sustainability and future direction of the mentoring programme (see Appendix N for interview questions). The inclusion of teachers with varying levels of training exposure and cluster participation enabled a nuanced understanding of how mentoring was experienced across different professional profiles.

Semi-structured interview: Mentors

Twelve mentors were selected (see Table 12) for in-depth interviews from the broader online survey sample of 33 mentors. Participants were drawn from the same sub-districts from four programme regions as the selected teachers to ensure contextual alignment. Although two of the four identified novice mentors did not respond to the interview invitation, mentors from neighbouring subdistricts were subsequently recruited to maintain regional representation and achieve the intended sample size.

Table 12
Mentor Participant Demographics

No	Pseudonyms	Age	Educational Background	Prior teaching experiences		Length of the mentoring role	Live in the assigned sub-district?		How many teachers have you mentored?
				Length of teaching experiences	Level of education		Yes	No	
1	Mentor Phoebe	38	Bachelor	5 – 10 years	Pre-school	>3 years		√	10-15 teachers
2	Mentor Penelope	32	Bachelor	5 – 10 years	Pre-school	2 years	√		4-9 teachers
3	Mentor Aphrodite	47	Bachelor	2 – 4 years	Pre-school	>3 years		√	10-15 teachers
4	Mentor Thalia	35	Bachelor	5 – 10 years	Pre-school	>3 years	√		>15 teachers
5	Mentor Alexandra	29	Bachelor	2 – 4 years	Sunday School	>3 years	√		10-15 teachers
6	Mentor Athena	28	Master	< 1 year	Pre-school	>3 years		√	>15 teachers
7	Mentor Cassandra	40	Bachelor	5 – 10 years	High school	>3 years		√	>15 teachers
8	Mentor Hera	33	Bachelor	5 – 10 years	Pre-school	2 years	√		>15 teachers

9	Mentor Ophelia	28	Bachelor	<1 year	Primary school	>3 years	√	>15 teachers
10	Mentor Sophia	29	Bachelor	<1 year	Junior high school	>3 years	√	10-15 teachers
11	Mentor Zeus	35	Bachelor	2 – 4 years	Senior high school	>3 years	√	>15 teachers
12	Mentor Ares	33	Bachelor	1 – 2 years	Primary school	>3 years	√	10-15 teachers

The mentors ranged in age from 28 to 47 years. Most held bachelor's degrees, and one held a master's qualification. All had prior teaching experience before assuming mentoring roles, although the duration varied from less than one year to more than 10 years. Their previous teaching contexts included preschool, Sunday school, and primary to senior secondary education settings.

Mentoring experience among the interview participants also varied. The majority had been in the mentoring role for more than three years, while a smaller number had two years of experience. This distribution mirrored the broader survey findings, where 19 of 33 mentors had at least three years of mentoring experience. The number of teachers mentored ranged from 4–9 teachers to more than 15 teachers, indicating variation in mentoring workload.

Geographically, more than half of the mentors lived in the same sub-districts as their assigned schools, reducing travel constraints and enabling more frequent engagement. Survey findings also identified that, prior to the COVID-19 pandemic, most mentors visited ECD centres four times per month as required by the programme design, although implementation was not always consistent across locations.

During the interviews (see Appendix O for interview questions), mentors were asked to reflect on their mentoring practices, leadership roles within the teacher working groups, perceived impact on teacher capacity, challenges encountered (including logistical and technological barriers during the pandemic), and their professional confidence in fulfilling mentoring responsibilities. Survey data indicated generally high levels of self-reported

confidence among mentors, which provided an important interpretive lens for analysing interview narratives.

Semi-structured interview: Government and development agencies participants

In addition to teachers and mentors, ten policy and programme stakeholders participated in semi-structured interviews. All identified individuals were invited to participate and voluntarily agreed to take part in the study (see Table 13).

Table 13
Policy and Programme Stakeholder Demographics

No	Name	Category/Job Position/Office Based
1	Moses	Representative of the Ministry of Education, Culture, Research, and Technology (MoECRT). Office: Jakarta
2	Sarah	Representative of the Ministry of Education, Culture, Research, and Technology (MoECRT). Office: Jakarta
3	Irina	Representative of a development agency One. Office: Jakarta
4	Monisha	Representative of a development agency Two. Office: Jakarta
5	Louisa	Representative of a development agency Three. Office: Kupang
6	Noah	Representative of a development agency Three. Office: Jakarta
7	Inayah	Representative of a development agency Four. Office: Jakarta
8	Ticiana	Representative of a development agency Five. Office: Kupang
9	Manuel	Representative of the Kupang district government. Office: Kupang
10	Aaron	Representative of the village government. Office: Kupang

The participants represented both government institutions and development agencies. Four participants were government representatives: two Directors from the Ministry of Education, Culture, Research, and Technology (MoECRT) based in Jakarta, one Head of Office from the Kupang district government, and one Village Head from Kupang. These participants provided perspectives from national, district, and village levels of governance.

The remaining six participants were staff members from development agencies. Their roles included Task Team Leader, Development Programme Coordinator, ECD Specialist, Education Specialist, ECD Expert, and Office Manager. Most development agency participants were based in Jakarta, while two were based in Kupang.

Overall, the composition of participants reflects a multi-level policy and implementation landscape, incorporating national decision-makers, sub-national government authorities, and development partners involved in early childhood education and mentoring initiatives.

The Process (proximal processes) in the mentoring relationships

Guided by Bronfenbrenner's bioecological theory, I analysed the findings from surveys and interviews with a particular focus on proximal processes, which are the primary mechanisms of development in the PPCT model. Bronfenbrenner and Morris (1998, 2006) define proximal processes as enduring, progressively more complex, and reciprocal interactions between an active individual and their immediate environment. For these processes to influence developmental outcomes, they must occur consistently and be sustained over time.

In this study, I conceptualised the interactions between mentors and ECE teachers as proximal processes. These interactions not only occurred over multiple years but also deepened and broadened as teachers progressed through their first, second, and third years of mentoring. In the early stages, exchanges tended to focus on procedural guidance and classroom management. Over time, however, discussions became more dialogic and reflective, addressing pedagogical reasoning, child development principles, and problem-solving in specific classroom contexts. The reciprocal nature of the relationship, where both mentors and teachers contributed to feedback, guidance, and shared learning, further aligns with the bioecological definition of proximal processes. To capture these dynamics, I used inductive coding to identify recurring patterns of interaction, enabling analysis of how mentoring relationships operated as a sustained driver of professional development.

Through thematic analysis, I examined how mentoring interactions functioned as a proximal process and asked: In what ways do mentor-teacher interactions become recurring, meaningful exchanges that support professional growth? The analysis highlighted three specific forms of proximal processes that shaped effective mentoring relationships in the ECE teacher mentoring programme in Kupang District:

1. Assisting and guiding pedagogical practices, where mentors provided practical support before, during and after teaching sessions.

2. Pedagogical knowledge sharing, which occurred through observation, feedback, and collaborative planning of teaching and learning activities.
3. Collaborative and reciprocal relationships, in which both mentors and teachers engaged in two-way exchanges that fostered trust, mutual respect, and shared learning.

Although presented as three categories, these processes were dynamically intertwined, with pedagogical guidance often generating knowledge exchange, and reciprocal dialogue strengthening the depth and continuity of interaction over time. By situating these findings within the PPCT framework, there is evidence that mentoring interactions, when sustained and reciprocal, function as proximal processes that not only influence teachers' pedagogical development but also reveal the active role of person characteristics (e.g., mentors' relational skills, teachers' openness) in shaping their effectiveness.

Assisting and guiding pedagogical practices

Mentors supported teachers through classroom visits, feedback, modelling, and joint planning. Teachers frequently referred to *mendampingi* (assisting) and *membimbing* (guiding) as defining features of effective mentoring. Most teachers valued regular mentor presence, linking it to feeling supported and open to feedback, which in turn strengthened their confidence to try new teaching strategies and refine classroom practice. Survey data indicated that over 75% of teachers and 30% of mentors emphasised assisting and guiding as core to mentoring. As Teacher Anna explained, "My mentor helped me plan engaging activities and gave useful feedback after class." Similarly, several mentors described using observation and modelling to scaffold teacher improvement, adapting their approach to each teacher's capacity.

The following are excerpts from mentor and teacher participants' definitions of effective mentoring shared in the online survey:

To assist and observe how teachers apply new teaching methods after participating in training. (Online survey, Teacher respondent 21)

Effective mentoring is assisting with responsibility, delivered by a genuine mentor. (Online survey, Teacher respondent 23)

Mentoring consists of guiding through good examples so that ECE teachers can achieve better learning quality. (Online survey, Teacher respondent 35)

Effective mentoring is a process of assisting, conducted regularly by the mentor, using relevant tools that both mentors and teachers understand. (Online survey, Mentor respondent 10)

Mentoring is effective when a mentor can provide guidance that teachers are able to follow. The guidance can be based on the mentor's teaching experience and the teachers' needs for support. (Online survey, Mentor respondent 13)

Observing and assisting early childhood teachers by providing strong motivation. (Online survey, Mentor respondent 26)

The survey excerpts suggest that participants conceptualised effective mentoring as both a structured and relational process. On the one hand, teachers and mentors emphasised the value of systematic practices, such as observation, feedback, and the use of shared tools, which enabled teachers to apply new pedagogical methods consistently. On the other hand, they also underscored the importance of relational qualities, including genuineness, responsibility, and the ability to motivate, as critical to building trust and sustaining engagement. Overall, these perspectives indicate that effective mentoring is not solely about transmitting pedagogical knowledge but also about fostering a supportive environment where teachers feel guided, encouraged, and empowered to grow.

The interview findings further illustrate how mentors enacted their roles in practice. Mentor Phoebe described observing classroom activities, offering feedback, and modelling techniques such as effective storybook reading. Similarly, Mentor Alexandra explained how she used visual aids like pictures and short videos to encourage teachers, combining constructive feedback with positive reinforcement. From the teachers' perspective, this approach was highly impactful; Teacher Merida highlighted that hands-on modelling by her mentor significantly shaped and improved their pedagogical practices. Together, these interview accounts show how observation, feedback, and demonstration became central strategies in the mentoring process.

Pedagogical knowledge sharing

The second proximal process identified in the findings concerns the sharing of pedagogical knowledge within the mentoring relationships. This exchange occurred not only between

mentors and teachers but also among teachers themselves and, in some cases, between mentors. Teachers consistently expressed an expectation that mentors would guide them in pedagogical practices, particularly in relation to the national curriculum and child-centred teaching strategies. Failure to meet these expectations, they suggested, could erode teachers' trust in their mentors.

Monthly mentor meetings were highlighted as a central platform for such knowledge exchange. Teachers viewed these gatherings as opportunities to learn about the national curriculum and effective classroom strategies. As Teacher Belle articulated, "Mentors should possess a comprehensive understanding of preschool teaching methods and a mastery of various approaches suitable for young children." Similarly, Teacher Tiana emphasised that "effective mentoring depends on the mentors' ability and how the mentors actively participate in teachers' learning... the mentors should know (deeply) about this topic to give us guidance and better assistance."

Both mentors and teachers acknowledged that effective feedback and guidance require mentors to have solid pedagogical expertise. Mentor Sophia observed that mentors must "possess enhanced knowledge and skills in ECD and mentoring techniques... without this, how can we provide the necessary guidance?" Teachers echoed this view, noting that when mentors lacked expertise, the mentoring process became less effective. For example, Teacher Moana, with over 20 years of experience, described how a knowledgeable mentor once encouraged her to share her expertise during cluster meetings, but later encountered challenges when a new mentor in her sub-district lacked sufficient pedagogical understanding. She cautioned that "it becomes problematic if teachers surpass the mentor in expertise, especially when the mentor's ego prevents them from accepting advice from those they are meant to guide."

Mentors also recognised that they might not always have immediate answers to teachers' questions, but saw value in collaborative problem-solving. Mentor Alexandra described her approach:

I engaged teachers in discussions about their teaching... whenever they shared their struggles, we collaboratively explored solutions. Even if I could not immediately provide a pedagogical solution, I aimed to foster a positive rapport by showing genuine care and attention. Her systematic

practice of tracking teachers' challenges and preparing resources for follow-up exemplified a proactive and supportive mentoring style. (Mentor Alexandra)

Teachers further valued mentors who combined pedagogical skills with practical teaching experience. Teacher Mulan emphasised that mentors should “possess more teaching experience than the teachers” to effectively bridge pedagogical gaps. Likewise, Mentor Phoebe underscored the need for humility and curriculum mastery, stating that mentors must “embody humility and maintain a low profile to effectively communicate and engage with the entire ECD community.” Several teachers highlighted the dedication of mentors who continued offering support after the pilot programme ended, as illustrated by Teacher Elsa's appreciation of her mentor in a remote sub-district.

Mentors also pointed to the importance of complementing pedagogical knowledge with ongoing training and practical application. Mentor Ophelia described encouraging teachers to share their improved practices with peers, thereby distributing the responsibility of knowledge sharing. Other participants, like Teacher Merida, highlighted the need for mentors to expand their skills to include digital literacy: “Considering the advancements in technology, mentors should also have proficiency in Information Technology (IT)... they should actively share current information on teaching methods, leveraging IT knowledge to enrich our learning experience.”

Overall, the findings suggest that pedagogical knowledge sharing is central to effective mentoring. Both teachers and mentors emphasised the importance of expertise, humility, and collaboration in shaping meaningful professional learning. Both mentors and teachers also emphasised the need for mentors to have strong pedagogical knowledge, particularly regarding the national curriculum.

Collaborative and reciprocal relationships

Mentoring was most effective when grounded in collegial, respectful partnerships. Mentors who avoided top-down approaches and engaged teachers in shared decision-making built stronger relationships. Mentor Sophia described how she ‘worked together’ with teachers to plan, motivate, and support. Similarly, some teachers also shared knowledge back with mentors. “I gave my mentor advice about classroom setup, and she used it in other schools. It's a give-and-take relationship,” said Teacher Tiana.

This collaborative ethos was echoed by government and development agency stakeholders. They emphasised adult learning principles and respectful dialogue. “The mentor isn’t the expert who knows everything; the key is problem-solving together, treating teachers as equals, and showing commitment”, said Teacher Louisa. Government official Moses stressed that mentors should “build collegial relationships, collaborate with external actors when needed, and understand adult learning principles to effectively support teachers.” These themes closely intersect with the personal characteristics of mentors and teachers, which are discussed in the following section

Personal characteristics in mentoring

Bronfenbrenner and Morris (1998) argue that individual characteristics can be either generative, supporting positive development, or disruptive, undermining it. In mentoring relationships, such attributes shape whether partnerships become collaborative and constructive or strained and ineffective. To explore this dimension, teachers and mentors in the online survey were asked to identify the most important qualities underpinning effective mentoring.

Across both groups, communication emerged as the most salient factor. Seventy-six teacher respondents placed good communication at the centre of effective mentoring, often linking it to openness, respect, and cooperation. Mentors echoed this, citing “building good communication” and “developing friendly relationships” as their most frequent responses. Less frequently mentioned, but still valued, were traits such as honesty, humility, patience, kindness, and trust. Collectively, the survey findings suggest that effective mentoring rests not only on technical expertise but on relational skills that foster openness and reciprocity.

These survey patterns were elaborated in the interviews. Teachers consistently described communication and relationship-building as inseparable. They emphasised that mentors need to engage both formally, through observations, cluster meetings, and feedback sessions, and informally, via phone calls or casual conversations. Mentors, in turn, stressed that respectful, non-hierarchical relationships enabled them to provide feedback more effectively. As Mentor Phoebe explained, beginning with appreciation before offering feedback created “a circle of mutual respect.” Mentor Ophelia added that treating teachers as friends rather than subordinates made teachers more willing to discuss their needs.

When discussing desirable dispositions, both mentors and teachers converged on a cluster of attributes- honesty, friendliness, politeness, humility, and openness- as essential to sustaining trust. Mentors particularly highlighted honesty and responsibility as central to their role, while teachers placed greater emphasis on friendliness and kindness. The interview evidence suggests that mentors who embody these traits were perceived as credible partners, whereas those lacking them risked eroding teachers' willingness to engage openly.

Bronfenbrenner and Morris (1998) suggest that characteristics of force can either be generative or disruptive. Therefore, identifying these characteristics is crucial in building an effective mentoring relationship. Participants in the online survey were asked to identify the most important factors in building an effective mentoring relationship. Table 14 presents the findings from teachers' online survey responses. The multi-coding analysis of teachers' responses (n = 194) indicates that good communication was the most frequently mentioned factor (68 responses), highlighting its central importance in effective mentoring relationships. This was followed by references to trust, role modelling, motivation, support, sincerity, and friendliness (32 responses), suggesting that teachers strongly value the affective and moral dimensions of mentoring. Openness and respect were also prominent (30 responses), reinforcing the expectation of non-hierarchical and reciprocal interactions. Mentoring as a process of knowledge sharing was mentioned in 24 responses, while good relationships (18 responses) and cooperation (9 responses) were comparatively less emphasised. Overall, the findings suggest that teachers prioritise communicative and relational qualities over purely technical aspects of mentoring.

Table 14

Key Factors in an Effective Mentoring Relationship (Teachers' Perspectives)

Key factors supporting effective mentoring relationships	Teachers (number of responses)
Good communication	68
Openness and respect	30
Knowledge sharing	24
Good relationship	18

Good cooperation	9
Aspiration or role model, trust, motivation, self-confidence, support, sincerity and friendliness	32

Table 15 illustrates the results of the online survey, highlighting mentors' perceptions of the key factors contributing to effective mentoring, based on responses from 33 mentors. Mentor participants most frequently identified building good communication as the central factor in developing an effective mentoring relationship (n = 8). This was followed closely by building a friendly or positive relationship (n = 7), reinforcing the importance of relational closeness in mentoring practice. In addition to relational aspects, mentors also emphasised the significance of having knowledge and skills in mentoring (n = 5), indicating that professional competence remains an important foundation for effective support.

Table 15

Key Factors in an Effective Mentoring Relationship (Mentors' Perspectives)

Key factors supporting an effective mentoring relationship	Quantity
Building good communication	8
Building a friendly/good relationship	7
Having knowledge and skills in mentoring	5
Humility	4
Respect	3
Honesty	3
Building networks	3
Enthusiasm	2
Cooperation	2
Tolerance, provide solution, become peer-mentor, openness, diligence, loyalty, coordinate, responsible, sensitive, trustworthiness, confidence, good approach, exchange opinion, sharing, ready to help teachers, improve children's abilities	1

Several personal characteristics were also highlighted. Humility (n = 4), respect (n = 3), and honesty (n = 3) were mentioned as essential qualities that shape constructive mentor–teacher interactions. A smaller number of mentors referred to network building (n = 3), enthusiasm (n = 2), and cooperation (n = 2). Other individual traits, such as tolerance, openness, diligence, loyalty, commitment, responsibility, trustworthiness, confidence, and readiness to support teachers, were each mentioned once. Overall, the findings suggest that mentors primarily conceptualise effective mentoring as grounded in strong communication and positive interpersonal relationships, supported by professional competence and reinforced by moral and personal integrity.

Both teacher and mentor participants acknowledged in the online surveys that building good communication is essential in establishing effective mentoring relationships and placed this factor at the top of the lists. Mentor responses included the following:

- communicating with each other during the mentoring relationship.
- communicating about ECD issues.
- communicating to give feedback and suggestions.
- building good communication.
- honest and open communication.

Likewise, teacher responses included:

- building positive communication.
- communication and cooperation.
- communication with other positive values, such as honesty, openness, and positive relationships.

During the interviews, mentor and teacher participants were asked about relevant skills and dispositions for both mentors and mentees (teachers). Mentor Athena reflected on this, noting that she had broadened her perspective on what makes an effective mentoring relationship. She emphasised that mentors need to bring both expertise and the right dispositions, explaining that mentors should have more knowledge and skills to perform mentoring practices with teachers, and that they also require good communication skills to provide input, offer feedback, and evaluate teaching practices effectively.

The personal attributes of the mentors and teachers are discussed in the next section, beginning with the perspectives of the mentor and teacher participants, followed by the views of the government representatives and the development agencies.

Mentors' characteristics: Mentors' and teachers' perspectives

The interview findings suggest that mentors conceptualised effective mentoring primarily as a relational practice grounded in communication, integrity, and humility. For mentor participants, communication was not merely a technical skill but a relational strategy that enabled feedback, dialogue, and mutual respect. As Mentor Phoebe explained, building a strong mentoring relationship begins with appreciation and constructive feedback, creating what she described as a “circle” of mutual respect. Similarly, Mentor Ophelia emphasised that mentors should avoid positioning themselves as superior and instead relate to teachers as colleagues or friends, as communication becomes easier when hierarchical distance is reduced. Their responses were as follows:

To be a good mentor, we must develop a good relationship with teachers and ECD managers. Good communication skills are essential for a strong relationship between mentor and teacher. To begin the conversation, I appreciated their work, and they often praised mine, allowing me to continue providing feedback to the teachers. This circle will foster respect for one another. (Mentor Phoebe)

To have a good relationship with the teachers, don't put yourself in a 'higher' position and force your teacher to follow every suggestion you make; we have to be friends with teachers. Communicating with teachers will be more accessible when we already have a good relationship with them, especially when discussing their needs. (Mentor Ophelia)

Beyond communication, mentors highlighted honesty as foundational to effective mentoring, while teachers strongly emphasised friendliness and politeness, describing effective mentors as approachable, kind, and respectful. Openness emerged as a shared yet complex theme. Some mentors deliberately modelled vulnerability by sharing their own struggles to encourage reciprocal disclosure. However, several teachers noted that hierarchical perceptions could inhibit openness, as mentors were sometimes viewed as authority figures whose guidance must be obeyed. These accounts suggest that openness becomes meaningful only when mentors consciously position themselves as partners rather than superiors.

For mentors, honesty involved both personal integrity and transparency from teachers. Mentor Ares noted that when teachers conceal difficulties, mentoring becomes ineffective because support cannot be appropriately tailored. Mentor Sophia extended this notion by linking honesty with sincerity in listening, suggesting that genuine attention is essential for

trust-building. In this sense, mentors viewed honesty as a reciprocal expectation: mentors must act with integrity, and teachers must be candid about their challenges.

Mentors also referred to dispositions such as confidence, patience, creativity, humility, responsibility, and courtesy. However, these were framed less as ranked traits and more as qualities that support relational engagement. Friendliness, for example, was described as a practical strategy for rapport-building.

The interview findings highlight that teachers perceived communication skills as one of the most essential characteristics for mentors, as these enabled them to provide feedback, offer motivation, and build constructive relationships. Teachers also emphasised that effective communication should occur not only face-to-face but also through other modes of interaction. For instance, Teacher Aurora noted that “the first skill is communication, and the second is having an emotional approach to the teacher, observing and learning teachers’ attitudes and characteristics.” Similarly, Teacher Tiana underscored the importance of sustained communication, stating that “mentors should communicate with the teachers at the centres and during ECD cluster meetings; and maintain communication face-to-face or through phone conversations and the Zoom application.”

The mentor and teacher participants often saw communication and good relationships as complementary. Mentors Phoebe and Ophelia argued that building a good relationship might support the mentors in communicating with the teachers, especially in discussing areas for improvement.

In the interviews, the mentor and teacher participants also noted the skills and dispositions of influential mentors. The mentor participants considered honesty the most prominent disposition for an effective mentor, with participants mentioning it four times. In the second ranking of the mentor’s personalities, the mentor participants highlighted traits such as confidence, patience, and creativity, which were mentioned three times by participants. In the third position, the mentor participants noted that humility, friendliness, responsibility and courtesy are essential for an effective mentor, mentioned twice by mentor participants.

According to the mentor and teacher participants in the interviews and supported by data from the online survey, phrases used to describe mentors’ dispositions in building an effective mentoring relationship are: honesty, friendliness, politeness, and openness.

Honesty

Mentors emphasised that teachers needed to be transparent about their challenges so that support could be accurately tailored. Mentor Ares noted that when teachers conceal difficulties, mentoring becomes ineffective because support cannot be appropriately tailored. Mentor Sophia extended this notion by linking honesty with sincerity in listening, suggesting that genuine attention is essential for trust-building. In this sense, mentors viewed honesty as a reciprocal expectation: mentors must act with integrity, and teachers must be candid about their challenges.

Teachers echoed this emphasis, consistently ranking honesty among the most desirable qualities in a mentor. For Teacher Aurora, honesty was inseparable from responsibility and humility, while Teacher Elsa linked it to diligence and creativity. When viewed together, the accounts suggest that honesty operates bidirectionally: teachers expect mentors to act with integrity, while mentors rely on teachers' candour to provide meaningful guidance.

The teacher participants have a similar view of honesty for the mentor's characteristics, although it combines with other significant characteristics, such as the views of Teacher Elsa and Teacher Aurora:

A mentor should be diligent, knowledgeable, honest, independent, and creative. (Teacher Elsa)

A mentor's qualities should include being responsible, disciplined, honest, and humble. (Teacher Aurora)

Being friendly and polite

Teacher participants indicated in the interview that the most prominent dispositions for an effective mentor were friendliness and politeness. Teachers consistently described effective mentors as approachable, kind, and respectful. Teacher Jasmine highlighted how mentors who combined friendliness with motivational skills were better able to inspire teachers and communities alike.

Mentors similarly framed friendliness as a practical strategy to create rapport. Mentor Cassandra invoked the philosophy of an Indonesian philosopher, Ki Hajar Dewantoro, to describe her approach: walking 'in front' to model behaviour, 'beside' to accompany learning, and 'behind' to offer moral support. Such accounts illustrate that friendliness and

politeness are not peripheral traits but central to the relational dynamics that enable constructive dialogue and feedback.

Engaging with teachers and ECD managers in a friendly and polite manner was fundamental to establishing an effective mentoring relationship. Teacher Jasmine noted that mentors should be good at motivating people, the teachers, and the ECD communities; mentors should have excellent speaking skills and be kind, friendly, and polite.

Openness

Openness emerged as a crucial yet contested quality in the mentoring relationship. For several mentors, openness meant normalising vulnerability. By sharing their own struggles, they aimed to model authenticity and create a safe space for teachers to admit difficulties. As Mentor Alexandra explained, “When they see my weaknesses, the teachers started to show and tell me their struggles.”

Teachers, however, highlighted how hierarchical dynamics could restrict openness. Some perceived mentors as authority figures, which left them feeling obliged to “obey orders” or even seek forgiveness for mistakes, as mentioned by Teacher Elsa. From this perspective, openness required more than inviting dialogue; it also demanded forgiveness, humility, and the dismantling of hierarchical barriers. Collectively, these accounts suggest that openness is most effective when mentors position themselves as partners rather than superiors, creating conditions for reciprocal learning rather than compliance.

Overall, both mentors and teachers described effective mentoring less as a hierarchical transfer of expertise and more as a relational and dialogic process grounded in communication, honesty, and mutual respect. While mentors tended to emphasise integrity and responsibility, teachers placed slightly stronger emphasis on friendliness and emotional closeness. Together, these perspectives indicate that relational qualities form the core of effective mentoring practice.

Mentors’ characteristics: Government and development agencies’ perspectives

Government officials and development partners largely converged on the view that effective mentoring requires both technical expertise and strong interpersonal capacities. Moses

emphasised that mentors should assess teachers' existing knowledge and skills early in the relationship in order to provide targeted support. He argued that:

The most important factors are that the mentor should know their teachers' level of knowledge, teaching skills, and what has been done to improve their teaching strategy. For example, the mentor found that their teachers need to improve their skills in the child-centred approach or classroom management strategies; the mentors should have this information and know how to assist them. The mentors do not have to master every theory in ECD, but at least they know how to assist the teachers and ECD managers in problem-solving. Those things are important for the mentors to increase the level of teachers' competency. (Moses)

Similarly, Noah stressed the importance of situational analysis, urging mentors to engage in dialogue with teachers to understand their backgrounds and challenges before offering support. Noah supported the view that mentors need to have some skills in assessing teachers' capacities.

The mentors should have understood the current situation of the teachers, especially the ones they are assisting. So, they must engage in conversation with the teachers to know their background and what challenges the teachers have. The mentors should know these things. In an organisation, we call it an analysis of the situation. (Noah)

Across participants in this category, communication and observation skills were consistently highlighted as essential. Louisa and Noah described mentoring as a process of observing, documenting, and engaging teachers in reflective discussion, with Louisa underscoring the need for a non-directive, problem-solving approach rather than a corrective stance. Ticiana echoed these points, noting that mentors should possess stronger pedagogical knowledge than the teachers they guide, while also demonstrating relational skills that build acceptance and trust within the ECD centres.

Beyond technical competence, participants highlighted personal integrity and humility as critical to sustaining mentoring relationships. Manuel from the district education office stressed that dishonesty and hidden agendas, such as political ambitions, undermine trust and erode the credibility of mentors.

This is a difficult question. What are the indicators for these? The figure of a mentor, I think, has to carry out their roles. There are no 'wings of the task' [doing other things unrelated to the tasks]. If you are a mentor, your job is to assist the teachers; do it professionally, so there won't be any

problems. But if you, as a mentor, have hidden agendas, it will become a problem. I think that is happening to around 1–2% of mentors [who are mentors to get into politics]. (Manuel)

Such perspectives reinforce that, from a policy and institutional standpoint, mentoring is not only a matter of skill acquisition but also of character formation and ethical practice. Manuel added that mentors should change their paradigms about mentoring and mentoring teachers, and, more importantly, eliminate their narrow-mindedness.

First, I think mentors should set aside their egos; they should not assume they are the experts. Second, mentors should not perceive their mentees as weak or lacking capacity. When mentors adopt this mindset, communication between mentors and teachers becomes more effective. However, if they prioritise their egos, communication challenges will arise. Similarly, teachers should carry out their tasks diligently and without hidden agendas. (Manuel)

Mentee (teacher) characteristics: Mentors' and teachers' perspectives

The following section examines the characteristics of mentees (ECE teachers) as perceived by both mentors and teachers themselves. These characteristics include willingness to engage in mentoring, openness to learning, and willingness to provide feedback. Understanding these attributes is important, as the effectiveness of mentoring relationships depends not only on mentors' competencies but also on teachers' attitudes, dispositions, and levels of professional engagement.

Willingness to be mentored

Both mentors and teachers identified a willingness to be mentored as a central quality that shaped the effectiveness of the mentoring relationship. Six mentors and eight teachers pointed to this trait, noting that receptivity to guidance enabled teachers to benefit from feedback and adapt their practices. Mentor Cassandra described it as having a “big soul” to receive critique and acknowledge one’s limitations, while Mentor Thalia linked it to a readiness to shift pedagogy: “Willingness to be mentored means the teacher has to be ready to change their practice.”

Teachers echoed this view but framed willingness in practical terms. Teacher Tiana, for example, associated willingness with being responsive to programme activities, attending meetings, and replying to mentors' requests for information. Other teachers, like Aurora, demonstrated willingness by asking questions and trying new strategies, while Megara equated it with being "nice" to mentors. However, reluctance was also observed, especially among senior teachers (such as Teacher Tiana) who felt more experienced than the mentors and therefore resisted feedback. These accounts suggest that willingness is not merely a passive quality but requires active engagement and humility to accept new ideas, regardless of prior experience.

Openness

Openness emerged as another key characteristic identified by both mentors (eight participants) and teachers (four participants). For mentors, openness was considered vital because it created space for teachers to share challenges and seek help. As Mentor Cassandra reflected, without openness, teachers tended to conceal their struggles, especially when they perceived mentors as outsiders. Teachers also underscored this point. For example, Teacher Merida observed that "ready-to-be-shaped" teachers were more likely to improve because they acknowledged their limitations and welcomed support. Teacher Anna added that openness was closely linked to courage, the ability to ask questions, admit difficulties, and embrace new skills. At the same time, Merida further explained that it also encompassed resilience in facing the challenges and unpredictability of teaching. These insights highlight openness not merely as vulnerability, but as an active stance of self-reflection, adaptability, and readiness to grow.

Willingness to provide feedback to the mentor

A less frequently mentioned but significant characteristic was teachers' willingness to provide feedback to mentors. Both sides recognised this as important for sustaining reciprocal relationships. Mentor Ares explained that teachers should not assume mentors know everything and could suggest themes that better fit their classroom needs. Mentor Penelope valued feedback as a way of mutual adjustment: "Even if I made some mistakes, the teachers could give me input so that I could change my approach."

Teacher participants also described situations where feedback was directed at mentors' behaviour or practices. Teacher Diana recalled suggesting schedule changes to improve

cluster meeting attendance, while Teacher Belle stressed that teachers should feel safe to comment on mentors' punctuality or approach. At the same time, Belle acknowledged that some challenges, such as mentors' travel distances, were beyond immediate resolution and required teachers to adapt. These accounts reveal that mentoring was not perceived as a one-way process; effective relationships depended on reciprocal feedback and the creation of safe spaces for dialogue.

Mentee (teacher) characteristics: Government and development agencies' perspectives

This section presents how government officials and development agency representatives conceptualised the characteristics of effective mentees within the ECE teachers' mentoring programme. From their perspectives, teachers' engagement in mentoring was shaped not only by technical competence but also by relational attitudes, including willingness to collaborate, openness to being mentored, and a sense of responsibility within the mentoring relationship. These perspectives provide insight into how mentoring was framed at the institutional and policy levels.

Willing to engage in a collaborative relationship

Moses suggested that the teachers must bring specific personalities, cognitive abilities, and motivation to benefit fully from mentoring. He stressed that the willingness to collaborate with mentors was a defining quality. For Moses, effective mentees are not defensive about their limitations but show patience and perseverance in pursuing change.

First, teachers must be open to change and adopt a growth mindset. They should not feel embarrassed if they lack certain teaching skills, nor should they be judgmental toward the mentor by assuming that the mentor will criticise their past teaching practices. Second, teachers should demonstrate a strong work ethic and perseverance, as the expected changes in their learning will not occur immediately. There is much for teachers to learn, such as adopting child-centred approaches, selecting appropriate educational toys to support children's growth and development, and, importantly, learning how to identify each child's developmental level. Third, teachers' motivation plays a critical role. Motivation enables teachers to accept the mentor as a colleague and partner in improving the quality of teaching at ECD centres. (Moses)

Willingness to be mentored

Louisa extended this point by stressing that teachers' willingness to be mentored is critical for any programme to succeed. For her, openness to feedback, curiosity, and recognition of one's own limitations form the foundation of productive mentoring.

Teachers are key, because if they are not open or interested in being mentored, the programme will never succeed. First, teachers need to be willing to be mentored and open to trying new things. They should also be interested in listening to others. Teachers need to recognise that 'I don't know everything; I'm not an expert in my own classroom,' and that there is value in learning from others in the mentoring space. If every teacher comes to the mentoring programme with that mindset, they will be able to learn from one another. (Louisa)

She cautioned that mentoring relationships falter when teachers resist listening. Instead, teachers should adopt a proactive stance, approaching mentors not only to receive advice but also to request targeted support.

They will all build each other up, rather than having a teacher come in saying, 'I don't want to be here, I don't need to listen to you, because I know everything and this is what you all should be doing.' That approach is going to fail. I think teachers should not only be open to having a relationship with the mentor, but they also need to be proactive and say, 'OK, I notice I'm having a problem with this... could you observe me, or can you provide me with some suggestions on what to do about this or that?' Asking for suggestions is a strength; otherwise, you have dug yourself into a ditch and are just sitting there with nowhere to go. (Louisa)

Louisa's view positions mentees not as passive recipients but as active participants who must take initiative, framing their questions and seeking advice as part of a shared professional journey.

Being responsible in the mentoring relationship

Noah similarly argued that responsibility in mentoring relationships lies not only with mentors but also with teachers. He noted that teachers should learn to conduct self-assessments, set goals, and practise open communication as strategies for building trust. For Noah, teachers who understand these processes may one day step into mentoring roles themselves.

I think the strategy should be the same: teachers need to know themselves and learn how to use self-evaluation tools so they can provide truthful information to the mentor. For example, after doing a self-assessment,

teachers can say, ‘OK, this is my challenge, this is what I need, these are my strengths,’ and so on. It is very important for teachers to carry out self-evaluation at the beginning and then set their objectives together with the mentor. This strategy will help them build engagement, strengthen trust, and facilitate easier input exchange. Another strategy for teachers is to support the mentor in the ECD cluster meetings. When teachers understand the mentoring process ... I mean, who knows, these teachers might become mentors in the future. You know, lead teachers or those with strong experience can also go on to mentor other teachers (Noah).

His comments reinforced the idea that mentoring is not unidirectional. Teachers who take responsibility for their own growth, through reflection, goal setting, and collaboration, strengthen the mentoring process and potentially prepare themselves to mentor others in the future.

Using Bronfenbrenner’s bioecological theory as an analytic lens, I examined the mentoring relationships in the Kupang District ECE programme through the concept of proximal processes, pedagogical practices, pedagogical knowledge sharing, and collaborative, reciprocal relationships. Effective mentoring combined structured support, such as classroom observation, feedback, modelling, and joint planning, with relational qualities like honesty, friendliness, openness, and humility, which fostered trust and engagement.

Mentors were expected to demonstrate strong pedagogical expertise, situational awareness, and relational skills, while teachers’ willingness to be mentored, openness, and proactive engagement were equally critical. Reciprocal knowledge exchange, respectful communication, and non-hierarchical interactions enabled both mentors and teachers to co-construct learning, address classroom challenges, and sustain professional growth. Stakeholders, including government and development partners, further emphasized that mentoring effectiveness depends not only on technical competence but also on ethical practice, integrity, and the cultivation of collaborative, supportive partnerships that empower teachers while nurturing future mentoring capacity.

The context of mentoring across systems

A total of 34 participants took part in individual semi-structured interviews to share the benefits and challenges of mentoring relationships based on their experiences during the implementation of the ECE teacher mentoring programme. This section focuses on the enabling forces and hindering factors identified within the bioecological systems most

directly connected to mentoring: the microsystem and the mesosystem. Findings are organised to highlight how these two systems shaped mentoring practices, relationships, and outcomes.

Microsystem: Mentoring relationships and relational dynamics

In this study, the microsystem refers to the immediate relational context in which mentoring occurs, specifically the interaction between mentors and teachers within the ECE centres in Kupang District. The themes identified at this level examine both the forces enabling and factors hindering the establishment of effective mentoring relationships. The findings further illustrate how these reciprocal interactions contributed to professional growth for both mentors and mentees (teachers), highlighting mentoring as a relational and developmental process embedded in daily practice.

Enablers: Friendship and accessibility in mentoring

This sub-section explains how friendship (warmth, trust, and non-hierarchical rapport) and accessibility (regular presence and ease of contact) operate as entry points for effective mentoring. I show how these two features lower relational barriers, increase help-seeking, and enable timely feedback on classroom practice.

When reflecting on programme benefits, about half of the participants noted that mentors were valuable sources of information who regularly visited centres to provide guidance. These visits typically focused on core elements of teaching practice, lesson preparation, developing teaching aids, and selecting appropriate methods, and created space for practical modelling and feedback. Beyond classroom issues, teachers also felt able to share non-teaching concerns (e.g., personal stressors or challenges with ECE managers), indicating that the relationship was one of trust and approachability. Taken together, the combination of friendly rapport and reliable availability made feedback easier to receive and apply, strengthening confidence to try new strategies and sustaining the ongoing, reciprocal interactions expected of effective proximal processes.

In several cases, the mentoring relationship evolved into genuine friendship, which both mentors and teachers considered important. For teachers, this reflected a strong sense of trust

in their mentors, encouraging them to share challenges more openly. As one participant described:

In addition to her role as a mentor, she also became our best friend. When I encountered teaching problems, I shared them with her; when I felt a lack of support from my ECD manager, I turned to her. I frequently discussed my problems with my mentor. (Teacher Belle)

Teacher Anna and Teacher Mulan highlighted additional perspectives. They explained that certain mentor characteristics, such as being friendly, spontaneous, and firm, contributed to building effective mentor-teacher relationships.

The current mentor came to my house and asked about the situation of our centre. We are close; she is like a friend to me, and she is different from the two previous mentors. She is the third mentor in our sub-district. What I like about her is that she is a spontaneous person, clear in her guidance, and has excellent teaching skills that I can learn from her. (Teacher Mulan)

My mentor easily mingled with the teachers, and it did not take long for her to become close to us. There was no gap between the mentor and teachers, which made me feel safe to share my teaching-related problems with her. (Teacher Anna)

The district education office in Kupang had a limited number of ECD supervisors. Consequently, when mentors were first recruited, many teachers assumed that their role would resemble that of a supervisor. In the local ECD community, supervisors were typically regarded as formal figures who visited centres and issued prescriptive action plans for teachers and managers. Mentor participants were aware of this perception, as supervisor visits were often associated with criticism of teachers' pedagogical practices rather than developmental support. To avoid such misinterpretation, Mentor Ophelia deliberately presented herself as a friend rather than a superior:

My mentored teachers were happy when I visited their centres. They could feel that I cared for them and paid attention to their needs. I visited and behaved as their friend, without any gap or hierarchical status. This made the teachers feel safe and secure to tell me anything, and I also felt accepted by them. I even helped repair the relationship between a teacher and an ECD manager who had not been speaking to each other (Mentor Ophelia).

Barriers to effective mentoring

Two interrelated barriers disrupted the sustained, reciprocal interactions required of the proximal process: (1) power imbalance, when mentors asserted superior status or overreached into community decision-making, undermining psychological safety, feedback uptake, and shared decision-making; and (2) competence gaps, primarily among teachers (planning, preparation, classroom enactment, professional habits) and, at times, among mentors (pedagogical modelling and professionalism), which limited teachers' capacity to plan, enact, and reflect on practice, thereby reducing reciprocity, slowing the translation of feedback into classroom change, and pushing mentors toward directive, one-way support rather than co-constructed learning.

Power imbalance

Power imbalance refers to asymmetries in authority, expertise, or voice that make teachers feel subordinate and less able to participate as equal partners. When mentors position themselves above teachers or overreach into community decision-making, reciprocity is lost, trust erodes, and mentoring becomes compliance-oriented rather than developmental.

Manuel, a district government representative, described instances of ineffective mentoring relationships in one or two sub-districts of Kupang. According to him, these problems emerged when certain mentors perceived themselves as more capable than the teachers and even the village leaders:

There were one or two mentors who acted as if they had capacities above those of the teachers. We must avoid this kind of behaviour. One mentor was overly intrusive at the village level, even intervening in decisions made by the village head. The same mentor was also reported to the police for another reason. In these situations, I had to step in to solve the problems. Thank God I was always able to help. (Manuel)

Teacher Merida also shared her experience of conflict with her first mentor, which she attributed to a lack of transparency and accountability, as well as personality differences. She further highlighted ethnicity as a contributing factor, contrasting her first mentor, an outsider, with her second mentor, who was from Kupang:

My first mentor was arrogant, possibly due to her cultural background. One day, I was asked to come to the local NGO office, responsible for mentoring employment, because the first mentor gave a false report about me to the Director of that NGO. After that, I confronted her, telling her not

to spread rumours about me. My first mentor was very different from our second mentor, who is originally from Kupang; our second mentor was friendly. (Teacher Merida)

Teacher Tiana also reported difficulties with her mentors, describing issues of commitment, professionalism, and hierarchical attitudes. Her first mentor frequently arrived late to parent–teacher association meetings, leaving her to lead the discussions:

I had challenges with my first mentor because she often came late to parent–teacher association meetings. By the time parents arrived, she had not yet come, so I had to facilitate the discussion. When I asked her why she was always late, she said it was because her house was far from the venue. (Teacher Tiana)

This mentor was eventually dismissed for holding an additional job in violation of contract regulations. Tiana’s subsequent mentors presented further challenges: one was reassigned elsewhere despite being effective, while another adopted a hierarchical style that created distance and distrust:

There was another mentor, who acted as if he was above us and superior. The communication between teachers in my sub-district and ZST was not going well. It was like there was a ‘big valley’ between us. He also liked to gossip, going to ECE Centre 1 to ask about ECE Centre 2, then to ECD Centre 2 to ask about ECE Centre 3. We were not happy about it. (Teacher Tiana)

These accounts illustrate how power imbalances, lack of commitment, and cultural differences can undermine trust and weaken mentoring relationships. When mentors positioned themselves as superior, teachers perceived a gap that restricted open communication and reduced the developmental value of the mentoring process. Moreover, issues of accountability, such as dishonesty, lack of transparency, or conflicting work commitments, further eroded trust and credibility. By contrast, when mentors demonstrated approachability, transparency, and cultural familiarity, teachers felt more supported and were more likely to engage constructively. These findings reinforce that effective mentoring in the microsystem requires not only pedagogical expertise but also relational qualities that foster mutual respect, trust, and equality.

Teacher competence gaps

Less than half of the teacher participants acknowledged their own capacity gaps, including limited self-discipline, punctuality, and skills in teaching preparation. Several explained that

these limitations were the root causes of their challenges. Teacher Ariel reflected on her lack of preparation and ability to design a teaching programme for her centre:

Before the programme, my problem was related to preparing for teaching. We did not have a semester, monthly, weekly, or daily teaching programme, nor a children's assessment instrument. We did not have guidelines to develop a local curriculum. We did not know how to make this and that. It was incredible, thanks to the mentoring relationship and the mentor's assistance. (Teacher Ariel)

Teacher Ariel further described teachers' limited understanding of ECE and the absence of positive professional habits: "Our challenge was also related to a lack of capacity as teachers without prior knowledge of ECE. I observed other teachers; we lacked discipline, had problems with punctuality, and sometimes delayed our action plans from teacher training."

Mentor Athena confirmed this challenge, noting that several teachers under her guidance had neither a teaching background nor prior experience in ECD centres:

I was responsible for mentoring teachers in six ECD centres in my sub-district. Initially, the teachers stated that they lacked sufficient teaching experience, and some had non-education bachelor's degrees. I was responsible for assisting them through mentoring sessions. When teachers had problems, we worked together to solve them. Now, teachers can adjust their teaching techniques to be relevant to preschool children. (Mentor Athena)

Similarly, Mentor Cassandra and Mentor Aphrodite highlighted teachers' lack of internal capacities, particularly in confidence and motivation to change their practices:

The challenge comes from the teachers themselves. For example, some teachers have been mentored, and I have asked about their obstacles so I could help them. Teachers have been trained in a series of training sessions, then further developed through mentoring sessions at the ECE centre, and reinforced in the cluster meeting. Many things have been done to support their pedagogical development, but after a few weeks, there was no change. The challenge lies with the teachers, who sometimes feel they lack the capacity or confidence. Lack of confidence creates doubt about change, and I have challenges with several teachers in these situations. (Mentor Cassandra)

Some of the teachers lack effort. Until today, I do not know how to manage teachers who do not care to adopt new practices. They were very motivated when we still had support from UNICEF and MFAT, but now the

approaches [support from the district government] are different. (Mentor Aphrodite)

Mentor Hera, however, pointed out that challenges were not limited to teachers; some mentors also demonstrated incompetence in fulfilling their role. She explained that teachers were less willing to accept mentoring that did not include pedagogical practice:

As mentors, we should walk the talk. We are expected to deliver our mentoring practice in a professional manner. I heard of a previous mentor from a different sub-district who came to the ECD centre, just took some pictures, and did not deliver her mentoring practice. It made teachers in her sub-district unhappy with her presence. I know some people can be good at verbal explanations but have fewer practical skills. (Mentor Hera)

Hera herself had extensive experience in ECE teaching, participated in a series of mentoring trainings, and was able to provide effective pedagogical advice and modelling. By contrast, other novice mentors, such as the one who only took photos to report her visits, were perceived as unprofessional, possibly due to a lack of training, skills, or confidence.

These findings show that barriers to effective mentoring arose from both relational dynamics and competence gaps. Power imbalances, where mentors positioned themselves as superior, hierarchical, or intrusive, undermined trust and created distance in mentor–teacher relationships. At the same time, teachers’ lack of preparation, discipline, confidence, and prior experience limited their ability to benefit fully from mentoring support. The effectiveness of the programme was further challenged when some mentors themselves lacked the training, skills, or professionalism to model best practices. By contrast, mentors who combined strong pedagogical expertise with relational sensitivity were able to overcome these challenges and foster trust, enabling teachers to engage more openly and develop their practices.

Benefits of participating in the mentoring programme

This section synthesises the benefits reported by mentors, teachers, and stakeholders, showing how sustained mentor-teacher interactions generated both personal gains (employment, confidence, leadership) and professional improvements (planning, pedagogy, classroom environment, and parent engagement). Initially, personal gains and capacities are outlined, followed by the professional benefits for teachers and for mentors.

Improved personal gains and capacities

Participation in the ECE teacher mentoring programme generated personal benefits for mentors, particularly in terms of employment, remuneration, and career development opportunities. For several mentors, the role provided not only financial stability but also a pathway for professional growth, including opportunities to enter the civil service. As Mentor Thalia explained, “I’ve got a job and earn some money.” Similarly, Mentor Athena reflected, “I got a job and gained the experience to speak in public; these opportunities improved my knowledge and personal capacities through the training I attended.” Mentor Sophia also highlighted the financial aspect, stating, “I have a job and receive a monthly salary.”

Mentor Sophia, a fresh graduate in guidance and counselling, highlighted how mentoring provided a valuable entry point into professional life:

I had no prior experience as a mentor. When I applied for this job, I had just graduated with a B.A. in guidance and counselling. I think it helped me to gain experience in the field because I had to live in the assigned sub-district. Who knows, I might get a permanent job as a civil servant like the former mentor who passed the test and is now working as an elementary school teacher. (Mentor Sophia)

Growing self-confidence

Many mentors reported initial insecurity due to limited teaching experience, lack of role clarity, and unfamiliarity with the ECE curriculum; training and repeated practice gradually built their confidence. Mentor Sophia illustrated these views as “I have become more confident and less nervous in front of many people.” Likewise, Mentor Cassandra reflected:

Honestly, when I was selected as a mentor, I lacked self-confidence because I was unfamiliar with the ECE curriculum. What would I do as a mentor? What approach should I take? I was so ‘blank’ at the beginning. Then, I participated in a training series, where I learned public speaking skills and delivered numerous presentations. Now I am more confident standing in public and facilitating events, even in front of important people such as government officials and community leaders. (Mentor Cassandra)

Teachers similarly reported increased self-confidence, particularly those with limited educational backgrounds. For instance, Teacher Merida explained that she entered the field without a teaching background and experienced years of self-doubt until mentoring support helped her build confidence in her role. Other teachers described how mentors actively facilitated this process by transferring relevant skills and encouraging leadership opportunities. Teacher Belle, for example, emphasised that mentoring in areas such as

learning media development and classroom arrangement not only improved her knowledge and skills but also strengthened her confidence. Similarly, Teacher Moana highlighted that being entrusted by her mentor to facilitate sub-district cluster meetings with other teachers and lead parent association sessions boosted her confidence, further validated when her ECD centre was later recognised as a model example in the sub-district.

These accounts underscore the crucial role of mentorship in alleviating feelings of inadequacy among teachers with non-teaching backgrounds. Through both technical guidance and leadership opportunities, mentors fostered professional growth that translated into higher self-efficacy. Collectively, the findings suggest that mentorship not only supports individual teachers' confidence but also contributes to elevating the profile and recognition of their ECD centres within the wider community.

Professional benefits for teachers

Government and development agency representatives consistently noted improvements in teachers' competencies, pedagogical practices, and professional attitudes as key benefits of the programme. For example, Moses highlighted the benefits of the ECE teacher mentoring programme for the teachers involved, improving their competencies. Meanwhile, Manuel and Noah emphasised other important benefits for the teachers, including learning about the child-centred approach and continuing their professional development. Moses stated:

When discussing the benefits for teachers, I spoke with teachers at several ECE centres and engaged in discussions with them. Most teachers expressed that the mentoring programme, implemented collaboratively by the central government, local governments, MFAT, and UNICEF, significantly enhanced their competencies and enabled them to provide higher-quality learning within their centres. (Moses)

Manuel offered these ideas:

The teachers acquired new teaching skills for young children. Previously, they often taught without any structured plans, relying only on daily improvisation. Now, however, they work more professionally, preparing teaching programmes that include systematic lesson planning, structured learning activities, and regular student assessments to monitor progress. (Manuel)

Noah observed:

Based on my observations and other evaluation and monitoring data, it is evident that most teachers are more familiar with child-centred and play-based methods in their pedagogical practices and lesson plans. The teachers know how to create educational toys using ‘loose parts’¹ and don’t depend on market toys. The teachers learned about loose parts from one of the trainings. Loose-part items could be found in their surrounding environments. (Noah)

Mentoring also contributed to improved classroom environments and stronger parent–teacher relationships, as reflected by Noah: “Teachers became more creative in engaging children during learning. I noticed classrooms decorated with children’s work and creative name displays supporting early literacy. Communication with parents also improved, showing greater collaboration.”

Monisha explained that the end-line survey, which measured the programme’s achievements, showed a significant impact on teachers’ capacities as a result of the ECE teacher mentoring programme. Echoing this, Noah also reported that teachers had strengthened their capacities, particularly in pedagogical practice. He further noted that mentor teachers now have the potential to conduct peer mentoring and facilitate parent meetings, and that the final assessments of this programme, clearly demonstrate significant improvements in teachers’ capacities. Overall, the programme has provided teachers and mentors with substantial knowledge and skills.

Teacher Jasmine, who described herself as ‘an old teacher,’ acknowledged that she continued to benefit from the mentoring programme. She explained that before joining the programme, she had little knowledge of structured teaching, particularly in relation to lesson planning and classroom organisation.

The mentor gave us knowledge and understanding of arranging a child-friendly classroom and developing daily and weekly teaching plans. I am an old teacher, but before the mentoring programme, I knew nothing about teaching plans. The mentor ensured that the theme and sub-theme were clear on the day of the visit. My mentor also suggested we divide the activities into several steps: the opening session, transition, main session, and closing session. The mentor taught us to set up the classrooms

¹ Loose parts are open-ended, movable materials (e.g., stones, shells, fabric, cardboard) that children can combine and transform; in play-based pedagogy they foster creativity, problem-solving, and physical activity at low cost using local/recycled items (Nicholson, 1971; Inspiring Scotland, 2019; Gibson, et al., 2017)

according to the children's needs, not based on the teachers' desires.
(Teacher Jasmine).

Similarly, Teacher Mulan reflected on how her practice had shifted from a more classical approach that prioritised early reading and writing drills.

I used to teach and push the children to be able to read and write; however, after the mentor's regular visit, I knew that we should not force the children to do it. The mentor showed me how to prepare relevant teaching materials or teaching aids according to the teaching plans. Thus, I introduced letters using teaching aids and numbers using concrete objects to the children.
(Teacher Mulan)

The availability of educational toys and teaching materials is a vital consideration in the teaching and learning process. However, in the Kupang district, as in other districts in Indonesia, educational toys are typically factory-made and remain financially inaccessible for most ECE centres in rural villages. As part of their training, the ECE mentors acquired skills in creating big books for children and producing educational toys from local, natural, and recycled materials. These skills were then transferred to teachers during mentoring sessions, which were particularly valued by Teacher Ariel and Teacher Aurora.

My teaching skills have improved from using too many songs, and then I learned how to tell a story to the children using a book I created. We learned to write a book from the mentoring workshop facilitated by advisors from Waikato University, and learned techniques to read a storybook for the children. Before the programme, we had factory-made educational toys. We always had to buy them until the national facilitators brought the concept of 'loose parts' during teacher training and follow-up sessions led by the mentor. We used loose parts items displayed in our classroom settings; for example, there is an art corner, block corner, natural materials corner, and a preparation corner; all corners are full of loose parts items. (Teacher Ariel)

We were initially hesitant about using loose parts after the teacher training, but our mentor helped us display loose parts items in every corner of the classroom. The hardest part was arranging the puppet show and role-play corners, in which our mentor challenged us to implement what we learned from the training. (Teacher Aurora)

Teacher participants, particularly those with only high school qualifications, expressed their appreciation for being included in the ECE teacher mentoring programme. They explained that the programme enhanced their pedagogical capacity and allowed them to feel on par with teachers who held bachelor's degrees. Teacher Mulan, who teaches in one of the most remote

sub-districts and does not hold a bachelor's degree, valued this professional development opportunity highly.

Many ECE teachers graduated from high school, but we feel blessed through this mentoring programme because the mentor improved our capacity as ECE teachers. We learned themes and sub-themes from the daily teaching plans provided by the mentor, for example, a theme about the profession and a sub-theme related to the teacher. My mentor came to school twice a week, and we had an excellent relationship. The mentor continuously checked the theme and sub-theme on the day of the visits. We were motivated by the mentor's visit. (Teacher Mulan)

Before participating in the ECE teacher mentoring programme, some teachers had no prior knowledge of child development aspects in the Indonesian ECD curriculum. In East Nusa Tenggara Province, corporal punishment was still widely accepted, underpinned by the local proverb 'there is gold at the end of the rattan stick.' For many teachers, topics related to child protection and child rights were therefore unfamiliar and challenging. Teacher Jasmine recalled:

Initially, we did not know about mentoring, then we participated in the teacher training, and then the mentoring training. The mentor said we need to learn about child development aspects and why we are not supposed to use harsh words or corporal punishment on children. (Teacher Jasmine)

Teachers like Jasmine and Mulan highlighted how mentoring improved their practice, from creating child-friendly classrooms and developing structured teaching plans to shifting away from rote learning toward play-based methods and concrete materials for literacy and numeracy.

Professional benefits for mentors

Several mentor participants explained that they gained new knowledge of early childhood education through the ECE teacher mentoring programme, as many had no prior teaching experience in preschool settings. These mentors relied on training materials provided by national and international facilitators. For example, Mentor Athena, who had only one year of ECD teaching experience, noted:

We received training and participated in a series of workshops, where we learned about early childhood development stages from Ministry of Education trainers. We received modules and guidelines to support our mentoring practices. My facilitating skills improved, and I also learned how to manage people. (Mentor Athena)

Mentor visits also contributed to teachers' capacity to develop teaching plans at various levels, from daily to annual programmes. Mentor Aphrodite highlighted her role in modelling such practices:

The benefit of the mentoring programme is gaining knowledge on how to mentor teachers, prepare learning materials, create learning activities, and utilise learning methods to facilitate young children. For example, I have become a teacher's role model in preparing daily lesson plans that engage children, which was not easy because many teachers had been using conventional methods for years. (Mentor Aphrodite)

Five participants from government and development agencies also emphasised the professional benefits of the programme for mentors, particularly in terms of pedagogical development, mentoring practice, and opportunities to participate in training. For example, Ticiana argued that strengthening the capacity of mentors and teachers created a 'domino effect' that ultimately improved children's learning experiences.

The benefits for mentors include increased capacity and greater confidence in carrying out their duties. When mentors assisted teachers, the teachers provided better quality teaching, and when the teachers improved their teaching, the children enjoyed learning more through child-friendly methods. (Ticiana)

Monisha echoed this point, noting that mentors broadened their perspectives not only on children's development but also on teacher professionalism and the wider education system. Inayah added that mentors developed both personally and professionally over time, often showing significant growth in confidence and skills:

I felt like being their mother or caregiver, and I am happy to see their personal growth and pedagogical improvement. We connected through Facebook, and I observed their activities. At first, some were passive during training, but over three years, their confidence grew significantly. (Inayah)

Some mentors went on to share their experiences in national forums, including webinars, which Inayah saw as evidence of sustainable professional development:

Some of them have become national speakers, and I was very proud. I could see that they continued to try to improve their competency and motivation even after the programme ended. I believe they will continue the culture of learning, and it will be sustained for a long time. (Inayah)

In addition to workshops, mentors also benefited from on-the-job training in West Java, where they observed alternative approaches to child protection and positive discipline.

Ticiana described this experience as transformative:

At the beginning, many teachers used negative sentences, loud voices, and often yelled at students. When we sent mentors for training in Bandung, they learned to speak softly, use positive sentences, and avoid punishment. They transferred these practices to teachers in Kupang, who now avoid offensive language and understand that violence harms children physically and mentally. In my opinion, teachers have now become softer and calmer.
(Ticiana)

Taken together, these perspectives suggest that the programme operated as a professional learning system for both mentors and teachers; as mentors' pedagogical and facilitation skills deepened, they were better able to model practice, curate resources, and catalyse peer-learning networks. This iterative development strengthened the mentor's professional identity and created a pipeline for locally grounded mentoring capacity that extends beyond the project's lifespan.

Mesosystem: Interaction dynamics between mentors and teachers

The interactions between mentors and mentees represent the mesosystem, which refers to the connections and interactions between one or more social systems within a microsystem. In this study, the mesosystem is reflected in the relationships between mentors and teachers at the ECE centres, as well as within broader professional networks such as the ECE Teachers' Association Forum and teacher cluster meetings. This section begins with enabling factors that strengthened mentoring relationships, followed by a discussion of the hindering aspects observed at the mesosystem level.

Enabling factors to form a perceived mentoring relationship

In my study, two mesosystem enablers stood out: knowledge transfer and networking in professional learning communities and beyond. First, straightforward, practice-focused knowledge transfer (e.g., modelling, co-creating low-cost materials, and step-by-step demonstrations) provided teachers with immediately usable strategies. Second, networking through sub-district cluster, the ECE Teachers' Association, and links to village authorities

expanded peer learning and unlocked practical support, helping sustain authority beyond individual centre visits.

Knowledge transfer from mentors to teachers

Inayah, an ECE trainer, was impressed by the teachers' pedagogical improvements, which she observed indirectly through social media. She highlighted the transfer of practical skills from mentors to teachers, such as creating teaching materials from natural or locally available resources:

I saw them on Facebook, and I recognised from their posts that the teachers truly implemented learning through play and used locally made materials. They even went beyond what we had delivered to the mentors; after receiving support, they could develop their own learning materials adjusted to their geographical challenges and context. (Inayah)

For Inayah, such practices were still relatively rare in Indonesia, and she regarded the Kupang teachers' use of local materials to support differentiated learning as exceptional:

The teachers in Kupang have implemented the new emancipated learning curriculum, which enables differentiated learning based on children's needs and interests. I haven't seen such practices in other regions, where local materials are used to implement the new curriculum. (Inayah)

Similarly, Ticiana described how mentoring shifted teaching practices from teacher-centred to more child-centred approaches:

Previously, the teacher sat in front of the classroom, and communication was one-way. Through mentoring, mentors supported teachers in changing their practices. As a result, children's work was displayed on the wall, students sat in small groups, and classroom arrangements changed weekly. These changes made the children happier when coming to school. (Ticiana)

Ticiana also noted that teachers learned to use self-made teaching materials, loose parts, and locally written storybooks:

Before the programme, ECE teachers depended on store-bought toys and reading materials. Now they create their own storybooks in local languages and develop learning media from loose parts. This shift is remarkable because teachers no longer rely on external purchases. (Ticiana)

Networking in professional learning communities and beyond

Teachers and mentors collaborated in facilitating cluster meetings at the sub-district level, where non-pilot schools also participated. These forums allowed teachers to expand their networks by engaging with peers, government officials, and community leaders. Mentor Alexandra shared how she supported a centre in negotiating with village authorities to secure funding for a new building:

I assisted two teachers who were teaching in a garage. I encouraged the committee and parents to discuss the situation with community leaders. Eventually, the village government allocated funds to build a proper centre. Without this change, teachers' practices would not have improved, no matter the training. Now they have three classrooms and an outdoor play space. (Mentor Alexandra)

This experience underscored the importance of effective communication and cooperation within broader village-level networks. In addition, the Kupang ECE Teachers' Association played a significant role by organising annual training in collaboration with UNICEF and government partners. Almost all mentors were members of the Association, often co-facilitating learning sessions with lead teachers. Teacher Moana illustrated the benefits of these forums:

We received materials on the curriculum and assessment not only from our mentor's visits but also during sub-district meetings, where we learned from other teachers' practices and failures. Sometimes, my mentor even asked me to help facilitate the discussion. (Teacher Moana)

Moana further explained that these professional gatherings were accessible and cost-effective: "One advantage of holding meetings at the sub-district level is that transportation costs are lower; we can attend the meeting and return home on the same day."

Teachers reported gaining practical skills in planning and delivering lessons. They transitioned from teaching without clear plans to developing structured programmes, arranging child-friendly classrooms, and applying play-based approaches with teaching aids, rather than relying on rote methods.

Mentoring relationships dynamic

Mentoring within the ECE teacher mentoring programme was not experienced as a fixed or uniform structure; rather, it evolved through ongoing interactions. While many participants

described mentoring as collaborative and supportive, moments of hierarchy and tension also emerged. The following sub-sections examine these relational patterns in more detail.

Non-hierarchical versus hierarchical mentoring relationship

The teacher and mentor participants generally described their relationships as non-hierarchical, often comparing them to friendships or even sisterhood. Mentor Cassandra illustrated this view, “I built a good relationship with the teachers, and because we met weekly, my relationship with the teachers was very close. We met for work and non-work-related activities.”

Similarly, participants from development agencies emphasised that effective mentoring should be collegial, transparent, and culturally appropriate. Irina highlighted the importance of balance and trust:

Teachers should not feel the presence of power when their mentors are their school principals. A good relationship between the coach and the teacher involves trust and a sense of comfort with each other. If the head teachers, as a coach, did not feel comfortable, they might not be interested in coaching. If the coaches feel comfortable, they will also make the coachee feel comfortable. The teachers would feel that the coaching session is effective when some insights or results from the coaching sessions bring value to them. They [the head teacher and teacher] are on the same team, working together to make a difference in the same school. (Irina)

At the beginning of the programme, the relationship between mentors and teachers was still formal, with many teachers perceiving the mentors as supervisors. Ticiana reflected:

At the beginning of the programme, the relationship between mentors and teachers was still in the formal stage; the teachers felt that they were under the supervision of the mentors because they used to teach random topics with no link to the curriculum. I think that because the teachers did not know the mentors’ roles, their relationships became more flowing and friendships over time. (Ticiana)

However, Ticiana also reported that experienced teachers were sometimes reluctant to accept guidance, especially when they felt more qualified than the mentors:

Some teachers have different capacities and less teaching experience than their mentors. Conversely, some teachers think they have been in the profession for a long time, so why should they listen to mentors who might not have teaching experience or have no educational background in early childhood? For them, it was like, ‘Why should I listen to you when you

don't have a bachelor's degree in early childhood?' Over time, with training for mentors and teachers, as well as additional mentoring workshops, I observed that their relationships improved. The teachers did not feel supervised; instead, they felt that the mentor came to collaborate with them. I can see the changes in their relationships, becoming more open, less scared, and less confused. (Ticiana)

Tension in the mentoring relationship

Ticiana also observed that inconsistencies in mentoring approaches sometimes created tension:

I observed that some of the mentoring approaches differ from one mentor to another. I observed tension between mentors and teachers, specifically regarding pedagogical practices. When the mentors shared some pedagogical practices with the teachers, the national facilitators had trained them on the new teaching curriculum for early childhood, but the teachers had never been informed about the changes in the curriculum. At first, the teachers were reluctant to change their practices until the district government informed them that the Ministry of Education had just launched a new curriculum called the 'emancipated learning curriculum. (Ticiana)

She further shared her vision of an ideal mentoring relationship:

I think that to build a collegial relationship, there are no superiors and subordinates, and it should be equal. Their collegial relationship should have the same vision to provide better early childhood development. Another element is also important, which is transparency, especially in financial matters. The mentors should be transparent with the teachers and ECD managers regarding the budget. (Ticiana)

At the same time, she acknowledged challenges when mentoring failed:

From our previous experience, a mentor was dishonest about money, which raised suspicion about the mentor. Other factors were respect and listening skills. The mentors should not impose their will on the teachers; instead, they should listen to and accommodate their teachers' initiatives. Lastly, there must be knowledge transfer for the teachers to continue their professional skills. (Ticiana)

Finally, Ticiana illustrated her view of mentoring using a cultural metaphor:

Illustration for the mentor when they visit the schools: imagine they come to the school as a guest; the mentors come to someone else's 'house'; they have to be polite. On the other hand, the teachers should open themselves.

They should open their ‘cups to be filled in’ with knowledge and skills from their colleagues, who are their mentors. (Ticiana)

The ECE teacher mentoring programme was reported to have significantly improved teachers’ capacities, particularly in pedagogical practices. It also enhanced mentors’ ability to support peer mentoring and engage parents, with final assessments confirming substantial gains in teacher knowledge and skills.

Summary

Drawing on the process-person, microsystem, and mesosystem findings, the study demonstrates that sustained, reciprocal mentor-teacher interactions, characterised by assisting/guiding practice, pedagogical knowledge sharing, and collaborative, non-hierarchical relationships, functioned as proximal processes that drove professional growth. Their impact hinged on the mentors’ skill, availability, and integrity, as well as on teachers’ openness, confidence, and effort; power asymmetries and competence gaps dampened reciprocity and slowed change. In the microsystem, approachable rapport and regular presence created psychological safety; in the mesosystem, practice-focused knowledge transfer and networking via ECE teacher clusters/associations spread low-cost innovations (e.g., locally made materials/loose parts) and mobilised support beyond single centres.

The next chapter moves outward to the exosystem (organisational support, district governance, resources), the macrosystem (policies, norms, cultural beliefs), and the chronosystem (three-year programme trajectory, shifts such as the emancipated learning curriculum, and post-project sustainability).

CHAPTER VI: FINDINGS – PART 2

Introduction

This chapter focuses on findings related to the three outer layers of the bioecological model, moving from everyday interactions to the wider systems and temporal forces that shaped mentoring in ECE centres in Kupang. First, under the exosystem, I examine the institutional and leadership structures, how school leadership and district government support enabled mentoring, what benefits accrued at this level, and which institutional barriers (e.g., limited facilities/infrastructure and interpersonal or organisational conflicts) constrained it. I then detail programme-specific hindrances that operated through these structures, including mindset challenges, high turnover of mentors and other actors, budget constraints, and questions of sustainability.

Next, at the macrosystem level, I consider policy and cultural ideology, as well as the enabling effects of the national pilot and policy alignment, alongside barriers arising from cultural norms and limited national recognition and funding. Finally, I address the chronosystem, the role of time, tracing changes across the programme years, shifts in thinking, evolving pedagogical practices, the provision of appropriate knowledge and skills to mentors, and observable changes in children's learning. The section closes with a summary that links these systemic and temporal conditions to overall mentoring effectiveness.

Exosystem: Institutional and leadership structures

The exosystem refers to institutional and organisational contexts that do not directly involve mentors and teachers but shape their professional experiences through indirect influence. In this study, the exosystem encompasses ECE centre leadership and district government structures that frame the conditions under which mentoring operates. This section examines how leadership support and district-level policies functioned as enablers of effective mentoring, highlights the benefits emerging at the exosystem level, and analyses institutional and systemic barriers that constrained the programme. It also explores the hindering factors within the ECE teacher mentoring programme that were linked to broader structural and leadership dynamics.

Enablers of effective mentoring at the exosystem level

The effectiveness of the ECE teacher mentoring programme was closely linked to support from ECE centre leadership, the district (and local) government, as well as support from the development agencies. Quotes in this section reflect the views of government personnel from the Ministry of Education, district and local governments, as well as representatives of development agencies at both national and local (Kupang) levels.

ECE centre leadership

Headteachers who participated in coaching training in the ECED front-line pilot programme funded by the World Bank developed new mentoring skills and adopted more collegial, supportive attitudes toward teachers. As one participant from the development agency explained, coaching created a “more fluid relationship” in which headteachers positioned themselves as equals, asking reflective questions such as, “Where do you want to go in your learning?” and supporting teachers in identifying their own goals and resources. This approach encouraged trust, active listening, and joint problem-solving.

District and local government support

District government support also played a crucial role. The mentoring programme provided a mechanism for local authorities to ensure quality standards were implemented in ECD centres and to disseminate education policies to village-level communities. In some cases, village leaders allocated funds for teacher training, school renovations, or teaching materials, reflecting the programme’s capacity to mobilise resources at multiple levels of governance.

Although preschool education falls under district authority and the provincial government was not directly involved in programme implementation, the initiative contributed to strengthening administrative and reporting functions. As Louisa explained, while the provincial level had limited operational responsibility, the mentoring programme supported data collection processes that informed national authorities. At the district level, the programme functioned as a governance mechanism, enabling authorities to monitor quality implementation and disseminate education policies to village communities.

Louisa added that the mentoring programme supported the district government in ensuring that ECE centres implemented quality practices and in disseminating district education programmes to the village level, as she mentioned, “the benefit for the district government is

that it provides a way for them to ensure that quality ECE is being implemented, and it helps them get their district government information out to their communities.”

Participants also described how the programme established a locally grounded mentoring system. Monisha emphasised that the initiative extended beyond mentoring practices to include structured planning, strategy development, and multi-level stakeholder engagement. By involving ECE managers, local government officials, village leaders, religious figures, and community champions, the programme embedded mentoring within broader community and governance structures. This integration strengthened ownership, particularly in community-based ECE centres.

Noah suggested that the mentoring programme in Kupang provided a useful example for other districts in NTT province. He stressed the importance of local support, especially from parents and village authorities, in strengthening ECE services:

For the local government, I think this is a good example not only of the effectiveness of the ECE centre but also of creating an enabling environment in surrounding centres, such as securing support from parents and the local authority. To improve the quality of ECE centres and secure local support. Based on that, I think the other districts should replicate the ECE teacher mentoring programme that was implemented in Kupang.
(Noah)

Manuel also noted that his office encouraged village governments to allocate funds for teacher training, as the district budget alone was insufficient.

When I visited some villages to monitor the implementation of the mentoring programme, I suggested that the village government allocate a budget for teacher training, as the district budget could not cover it. The mentors and lead teachers could facilitate the training. My office was only assigned a budget to train 100 teachers at the district level. (Manuel)

Aaron, a village head from one sub-district in Kupang, confirmed that the programme had inspired him to allocate village funds to strengthen ECE services in centres beyond the designated model schools.

I saw something different from the ECD model in my village. The teachers have new skills, teaching with available natural resources from the school’s environment. The facilities of the ECE model were improved, and the parents were very supportive of the ECD activities. Therefore, I agreed to secure some budget for renovating the facilities of the other three centres,

because there were four centres in total, and only one was a model school. We also provided indoor and outdoor materials and gave small incentives for the teachers to attend ECE cluster meetings and training. (Aaron)

Manuel explained that village governments supported a limited number of teachers to pursue bachelor's degrees in ECE by allocating village funds, thereby increasing their eligibility to be appointed as mentors. The requirement for mentors to hold a bachelor's degree encouraged many teachers, previously qualified only at the high school level, to pursue higher education. Local government incentives for degree-qualified teachers further reinforced this trend.

One more benefit for the district government is that the number of teachers pursuing bachelor's degrees [in ECE] increased because one of the requirements for a mentor is to hold a bachelor's degree. The district government had an agreement with a Catholic University to open a classroom in one sub-district in Kupang. Therefore, the ECE teachers did not need to go to the city to attend classes; instead, university lecturers came to the sub-district. In addition, there will be more support from the government if centres employ teachers with bachelor's degrees in ECE. (Manuel)

Similarly, Ticiana observed a growing interest among teachers to study at university, which she attributed partly to role models within the mentoring programme:

I also saw that many teachers were interested in taking classes in the ECE programme at the Open University. Maybe they were inspired by their mentors or other bachelor's degree teachers. Maybe during the ECE cluster meetings at the sub-district level, when the teachers gathered, those who graduated from high school saw that the other teachers with undergraduate degrees had better capacity. (Ticiana)

Development partner support

Manuel outlined additional enablers of the programme, emphasising the contribution of development partners such as MFAT New Zealand and UNICEF in supporting the district to achieve its development plans:

I think MFAT and UNICEF have significant experience in assisting the district government in the education sector. Both organisations helped the district to ensure we reached our mid-term development goal. We valued their expertise and contributions in creating a model of quality ECE services. Their contribution was key, alongside other organisations and NGOs who helped us develop the early childhood development model. I

understand that the ECE teacher mentoring programme in Kupang became a national model implemented in different provinces in Indonesia. (Manuel)

The ECE teacher mentoring programme strengthened governance structures by supporting district authorities in ensuring quality standards, disseminating programmes to the village level, and even inspiring replication across other districts. Collaboration with development partners and the requirement for mentors to hold bachelor's degrees further enhanced local capacity, motivating many teachers to pursue higher education. Importantly, village governments also became actively involved by allocating funds and resources, demonstrating how the programme mobilised support across different layers of the exosystem to sustain and expand quality ECD services.

Exosystem barriers

Teacher participants in the online survey identified several challenges in establishing effective mentoring. The most significant challenge was teachers' lack of competence (26.86%), followed by conflicts with ECD management (22.39%), geographical barriers (16.42%), and lack of infrastructure (10.45%). Other issues, though reported less frequently, included limited government support (7.46%), insufficient mentor capacity (5.97%), lack of parental support (4.48%), and poor teacher welfare (2.99%). Additional challenges, such as stunting and the COVID-19 pandemic, were also noted (2.99%).

Interview data reflected similar concerns: teachers' personal or professional incompetence; this theme has been discussed at the microsystem level; lack of facilities and infrastructure; conflict among key actors in the mentoring programme; challenges in the mindsets of the key stakeholders; high turnover of mentors and key stakeholders; budget constraints; and programme sustainability.

Lack of facilities and infrastructure

Five participants highlighted challenges with inadequate facilities and poor infrastructure. Problems included limited classrooms, insufficient teaching materials, and a lack of sanitation facilities. Poor roads and long distances also made access difficult. Teacher Anna, working in a remote area, explained:

Our centre uses part of a church building. After arranging the classroom, we often had to move everything because the church needed the space.

Buying teaching materials is costly, so the mentor advised us to use natural resources like rocks, sand, and leaves. (Teacher Anna)

Teacher Mulan also faced resource shortages but valued her mentor's support: "We lacked teaching aids, but with the mentor's help, we used local materials." While Teacher Elsa struggled with distance and transportation, "I walked a long way to reach the centre, sometimes bringing children along because their parents had to work in the fields."

Mentors from outside the assigned sub-district faced similar issues. Alexandra described the difficulties of travel in Kupang: "It took me 2–3 hours by motorbike to reach centres, through rocky, unpaved roads. In the rainy season, it was worse. Sometimes I missed classroom observations, but teachers adjusted their time for me." She also noted the lack of facilities at some centres: "One centre had only a wooden building, no proper toilet or water source, making health practices difficult."

Teachers further explained that distance learning delayed the start of lessons and that poor internet connectivity made online learning during COVID-19 impossible. As Teacher Anna put it, "Children often arrived late because they lived far from the centre, and during COVID, we couldn't do online learning due to weak internet and lack of devices."

Conflict

Several participants described conflict among teachers, mentors, and ECD managers. Mentor Alexandra recounted issues with a manager who misused donor funds: "One ECD manager in my sub-district used funds without reporting properly. I was upset, but I came to improve children's learning, not to fight. When I asked him to return the money, he became angry."

Teacher Belle explained that her centre was located in the manager's house, which created tension: "I often had conflicts with the manager because he treated the centre as his own. He never attended meetings or did administrative work, so I ended up handling both teaching and management. Belle admitted she once considered resigning but stayed after her mentor encouraged her: "At one point, I thought of giving up my job, but my mentor listened and told me to stay."

Other conflicts emerged between teachers and colleagues or parents. Teacher Moana recalled resistance from senior teachers and pressure from parents: "When I presented at a cluster meeting, some senior teachers dismissed my ideas. Parents also demanded their children read and write early, which shows a lack of understanding of ECD."

Teacher Jasmine described tension with another centre in her village, which led to threats of closure: “Another kindergarten was jealous because our centre became part of the mentoring programme and received accreditation. The manager even influenced the village head to close my centre. Luckily, my mentor supported me during the village meeting.”

Although mentor-teacher conflicts were rare, cases of dishonest or unreliable mentors were reported, and those mentors were replaced. Overall, conflicts between teachers and ECD managers were the most frequent.

Institutional and systemic barriers in the exosystem limit the effectiveness of mentoring by creating rigid structures and competing priorities. Limited resources, heavy workloads, and fragmented coordination across institutions reduce the space for meaningful engagement, often weakening the consistency and depth of mentoring support. These external constraints shape the quality of interactions, even when mentors and teachers are motivated.

Mindset challenge

A major barrier was the prevailing mindset among key actors such as ECD managers and village leaders, who often equated quality with physical infrastructure. Moses explained that while some leaders, like the Regent of Kupang, valued ECD, this mindset was not consistent at lower levels: “Changing mentality is key. Good ECD is not about modern buildings or factory-made toys, but about learning that meets children’s needs with everyday resources.” Similarly, Irina recalled difficulties during a World Bank programme, where principals appointed as mentors struggled to shift from a hierarchical to a collegial approach: “Principals often acted bossy. Building equal, friendly relationships with teachers was not easy.”

High turnover of mentors and other key actors

Frequent turnover of mentors and other key actors weakened programme consistency. Louisa highlighted that centres with mentor changes performed less well: “Centres with consistent mentors achieved more than those with frequent changes.” Turnover was often linked to geography. Noah noted long travel distances as a factor, while Ticiana described extreme conditions in remote areas: “Some mentors quit because of long travel on bad roads, dust, and illness.” Other causes included dishonesty, contract termination, and the COVID-19 pandemic. Beyond mentors, high staff rotation at UNICEF, MFAT, and within government agencies also disrupted coordination. As Monisha observed, “Staff and consultant changes

created coordination gaps between national and subnational levels.” Irina added that leadership changes in government further undermined continuity: “When champions leave, programmes lose momentum. With new ministers, priorities shift, and approaches change.”

Budget constraint

Four participants identified budget limitations as a major challenge during both the implementation and planning of the ECE teacher mentoring programme at the district level. Manuel reflected on his responsibility in advocating for policy support, emphasising the difficulty of convincing policymakers to allocate funds for ECD services:

I tried communicating with many parties, regional heads, office leaders, and parliament members, to increase the budget for ECD. Unfortunately, many did not understand the importance of ECD or the role of mentors. They saw ECD as just ‘singing and dancing’ and were unaware of the curriculum and learning-through-play approach. Advocacy required significant effort, but collaboration with NGOs and community figures helped strengthen the case. (Manuel)

Noah also acknowledged budgetary constraints but proposed a practical solution for districts with limited resources. Instead of relying solely on external mentors, he suggested appointing lead teachers with strong pedagogical skills to serve as mentors and implementing the programme gradually:

Kupang has 500 preschools. Instead of covering them all at once, the district could support 100 centres per year. Lead teachers could provide pedagogical assistance, and within five years, all centres would be included. This phased approach makes the programme more affordable and sustainable. (Noah)

While Manuel and Noah highlighted policy- and system-level funding challenges, Louisa drew attention to the financial constraints faced by teachers themselves, arguing that incentives are essential to ensure their participation: “Teachers earn very little, and mentoring happens outside teaching hours, often during the rainy season with transport challenges. We expect them to commit extra time, which takes them away from work or family, so they need to be compensated.”

Programme sustainability

Another key challenge concerns the programme's sustainability. Moses highlighted that local governments often perceive the initiative as externally driven rather than their own, leading to discontinuation once central support ends:

The next challenge is the continuity of the general policy. This is a very classic problem in government, where the local government or grassroots feel that this is not their policy, but a project from the central government. When it ends, the programme ends. (Moses)

Monisha stressed that for sustainability, mentoring must be institutionalised within government structures:

How do we make the mentoring system exist in Indonesia? It should be embedded in the national education system, particularly within the supervision system. We want the mentoring role to have more functions and interventions, so it becomes a systematic change rather than just another temporary programme. (Monisha)

Similarly, Noah pointed out that the concept of “mentoring” itself does not yet have a clear place within existing government structures:

This is a new term for us at the national level. What we have now is a similar programme through the ECE Cluster, so we need to clarify how mentoring can be integrated into this existing platform. With evidence from implementation, it becomes easier to showcase and advocate for its adoption. (Noah)

Macrosystem: policy and cultural ideology

Findings at the macrosystem level indicate that mentoring was shaped by national policy priorities, development agendas, and prevailing cultural ideologies. These broader forces did not operate through direct interaction with mentors and teachers; rather, they influenced how mentoring was recognised, legitimised, funded, and culturally interpreted within Indonesia's education system. This section examines how national pilot endorsement, policy alignment, and development partner advocacy functioned as enabling conditions for scaling and institutionalisation. It also analyses how cultural norms, limited policy recognition, and funding constraints created structural barriers that affected the programme's sustainability and long-term integration into government systems.

Enablers: National pilot programme and policy alignment

As the ECE Director, Moses explained that the Kupang programme created a model of quality ECD in rural areas. Initially sceptical due to Nusa Tenggara Timur Province's low educational outcomes, he was impressed by the transformation he observed in ECD centres:

The centres that were like a cowhouse in the past have now changed. I know the mentors who worked so hard to assist the teachers and ECD managers in changing their practices and their centre's environment. Kupang's success inspired the ECE directorate to adapt the quality ECE guidelines for wider replication. I believe our mentoring approach may have an optimal impact on ECE centres, and this model could be implemented in different districts or cities. In the same year [2020], I decided to scale up this programme to other regions... Kupang had been our inspiration. (Moses)

Development partners echoed this view, noting that mentoring supported the national government in bridging policy gaps and reaching teachers directly. Louisa stressed its role in ensuring that national guidelines reached the classroom level, reducing the risk of messages stopping at district offices: "This mentoring system helps plug that gap." Similarly, Noah argued that mentoring demonstrated how existing structures, such as ECD cluster meetings, could be leveraged for teacher professional development: "If we want to train all the teachers, it needs approximately 90 years... so we have to work differently. This mentoring programme was part of that innovation."

Monisha further reflected that the programme introduced the very concept of "mentoring" into Indonesia's education system, where it had previously been absent: "We introduced the first step: What is a mentor? What is mentoring actually? What is needed in the mentoring system... that gives an understanding of the mentoring system." She concluded that Kupang provided the ministry with a best practice model for national replication: "With our strong advocacy at the national level... showing the best example of the mentoring system in Indonesia, they could replicate it in other parts of Indonesia."

Addressing challenges in early childhood education often requires 'out of the box' strategies that extend beyond education to include health, welfare, and parental engagement. Moses, the ECE Director, emphasised that the Kupang programme was designed as a holistic ECD model that integrated education with health, parenting, child welfare, and protection: "We

wanted to create a model of Early Childhood Education that was implemented holistically... We hoped that Kupang could guide the other districts through this model.”

In line with this, Noah argued that mentoring should not only focus on improving teachers’ competencies but also strengthen parental engagement, support children’s transition to primary school, and advocate for local resource mobilisation to ensure sustainability: “This programme did not only support teaching capacities but also engaged parents, primary schools, and village funding, making ECE centres more sustainable in the long run.”

While holistic child development remained the ultimate goal, both Moses and Noah underlined that improving teacher capacity was central to the mentoring strategy. Moses reflected, “The key to mentoring was the transformation happening in the education unit so that we could produce quality output, especially for children to grow and develop appropriately according to their age.”

Although mentoring was new to Indonesia’s ECE system, both Moses and Noah noted that it could be embedded into existing teacher forums, such as monthly ECE cluster meetings, which already functioned as knowledge-sharing platforms. Noah explained, “This cluster approach... became a platform for teachers and ECE managers to improve the quality of their centres.” Similarly, Sarah, a representative of MoECRT, pointed out that while the terminology was new, Indonesia had past experiences with similar approaches, such as World Bank-supported teacher working groups in the 1990s, where lead teachers functioned much like mentors.

Both Moses and Noah highlighted that the Kupang pilot programme sought to address the persistent challenge of low educational outcomes in eastern Indonesia by focusing on 100 model schools. For Moses, the programme represented a strategic effort to build teacher competency and service quality across the district: “Our focus was developing quality ECE services in 100 model schools in Kupang...we wanted to improve the quality and competencies of the teachers and the centres as service providers throughout the district.” Noah added that the mentoring system also had a wider purpose: “Quality is not only about training or materials but also how the knowledge and skills gained could be spread to other ECE centres.”

Participants highlighted that the goals of the ECE teacher mentoring programme aligned closely with the priorities of development agencies in Indonesia. Monisha explained that the programme, implemented in partnership with the Ministry of Education and other agencies, reached remote areas in eastern Indonesia, regions often overlooked by donors, and created opportunities for influencing policy so that similar initiatives could be disseminated nationwide. She emphasised, “We don’t want to improve the capacity of teachers only, but also have a long-term impact on the policy side... bringing good study cases that can be replicated throughout Indonesia.”

A major strength of the programme was its ability to engage policymakers at multiple levels. Monisha described how regular consultative meetings and high-profile promotion by Indonesian and New Zealand officials raised the programme’s visibility: “Our spokesperson was the New Zealand ambassador to Indonesia and Indonesia’s Education Minister... Our Prime Minister, John Key, launched it.” These efforts positioned the programme as both technically valuable and politically significant.

Four participants stressed that the mentoring programme was designed in response to identified gaps in teacher training and continuing professional development. A UNICEF (2016) needs assessment had found little access to training, reliance on rote teaching methods, and limited child-centred learning. By contrast, the mentoring approach was seen as more sustainable, adaptable, and locally relevant. As Monisha noted, “Improving the quality of ECE services is still very lacking in some parts of Indonesia, so improving teacher capacity through mentoring is essential.”

For development partners, such as MFAT, the programme also supported Indonesia’s broader development agenda of strengthening human capital, as outlined in the RPJMN (National Medium-Term Development Plan). Monisha observed that New Zealand’s expertise in early childhood education, particularly through the national NZ curriculum *Te Whāriki* (NZ Ministry of Education, 2017), made it a valuable partner in helping Indonesia adapt best practices to its local context.

At the district level, mentoring was viewed as a practical response to systemic challenges. Noah argued that relying solely on government training budgets would take decades to reach all teachers: “If we want to train all the teachers, it needs about 90 years from now... so

mentoring is part of the innovations.” He and Louisa further pointed out that mentoring compensated for the shortage of ECD supervisors and provided an ongoing model for professional development that could extend beyond pilot centres.

Overall, the agencies’ involvement was shaped by their shared recognition that mentoring addressed teacher capacity gaps in underserved areas, aligned with Indonesia’s national development goals, and had the potential to serve as a scalable and sustainable model for professional development, provided it was embedded into government systems and adapted to local contexts.

Barriers: Cultural norms, limited national policy recognition and funding

Several structural and contextual barriers shaped the implementation and sustainability of the mentoring programme. These barriers extended beyond individual relationships and reflected broader cultural expectations, policy positioning, and financial limitations. The following sub-sections examine how cultural norms influenced mentoring dynamics, as well as how limited national policy recognition and funding constraints affected the programme’s institutional support and long-term viability.

Monisha highlighted a cultural barrier in mentoring when teachers are older than the mentors. In many contexts, younger individuals are expected to show respect and deference to elders, which can create a gap in establishing a common understanding. She explained that mentors need to gain teachers’ trust and act as facilitators rather than authority figures:

The teacher is usually older than the mentors because of the cultural context. While mentors may have higher education, they often lack teachers’ experience. It’s essential to establish mutual understanding from the outset. Mentors should not think they know better than the teachers; they should probe, guide, and help teachers find their own solutions.
(Monisha)

Moses described the challenge of gaining national recognition for the mentoring approach. Convincing policymakers required multiple studies and strategic adjustments, such as using the term ‘facilitator’ instead of ‘mentor’:

Kupang provided data through baseline, midline, and end-line surveys comparing pilot and non-pilot schools. Based on these results, the ECE Directorate scaled the Kupang programme nationally. The function and

roles are similar, but at the national level, we call them facilitators for holistic integrative ECD. (Moses)

Irina emphasised that funding alone does not solve systemic issues; government commitment and inter-divisional coordination are critical. She explained the complexity of navigating multiple government levels, from central finance departments to directorates within ministries, and the need to communicate programme concepts clearly across all levels: "There are various levels of government, each with different priorities and procedures. A joint programme may be approved at the top, but implementation requires understanding at every level, which is not easy because opinions differ."

Irina also noted challenges when foreign aid budgets are managed separately from regular state budgets, sometimes creating parallel structures that are difficult to integrate and fully utilise. She explained that "We formed a unit under the ministry to manage the World Bank programme. Several funds ran simultaneously, but in the end, they could not be fully absorbed, and projects did not always operate hand in hand."

Sustainability was a recurring concern. Like Irina, Louisa, and Sarah noted that the lack of dedicated government budgets for teacher training risked undermining long-term impact, echoing lessons from past donor-funded initiatives that declined once financial support ended. As Louisa put it, "The goal is to have a pilot become a model that the government sees the value of, and moves forward on their own." She added that working with national and provincial governments was critical for scaling the programme, which at one stage was considered for rollout to 150–200 districts in Indonesia.

Both Louisa and Monisha emphasised the importance of grounding mentoring in local realities rather than applying a top-down national model. Advisors from UNICEF and Waikato University collaborated to adapt New Zealand practices, tailoring them to the cultural and social context of eastern Indonesia. Louisa reflected that "what applies to the western part of Indonesia might not be applicable in the eastern part."

The findings at the macrosystem level indicate that the mentoring programme was shaped not only by policy endorsement but also by broader cultural norms and structural conditions at the national level. Cultural expectations regarding age and hierarchy influenced how mentoring relationships were negotiated, requiring mentors to adopt facilitative rather than

authoritative roles. At the same time, limited initial policy recognition and the need for strategic reframing, such as renaming mentors as ‘district facilitators’, highlighted the importance of political alignment for institutional legitimacy. Funding fragmentation, inter-ministerial coordination challenges, and the absence of dedicated long-term government budgets further constrained sustainability. These findings suggest that while the programme gained national visibility and policy traction, its long-term integration depended on continued government ownership, coherent financing mechanisms, and contextual adaptation. In this sense, the macrosystem functioned both as an enabling arena for scaling and as a structural constraint shaping the programme’s durability.

Chronosystem: The role of time in mentoring

The chronosystem in this study refers to the historical time in which the timeline of the ECE teacher mentoring programme implementation influences teachers’ pedagogical practice. The findings revealed four patterns highlighted by the participants: shifts in professional mindsets, changes to pedagogical practices, progressive development of mentors’ knowledge and skills and modifications to children’s learning.

Shift in professional mindsets

Most responses showed comparisons before and after the implementation of the ECE teacher mentoring programme. The teacher participants admitted they did not know what was written in the national ECE curriculum. Thus, it was common back in 2017 for mentors to witness how the teachers used the Reading, Writing, and Arithmetic (3Rs), the three foundational academic skills in basic education, before the ECE teachers were trained. The teacher training topics were not limited to the ECE curriculum but also included issues such as child rights, child protection, and learning through play. Some of these selected topics helped teachers understand new concepts of the emancipated learning curriculum (introduced by the national facilitators) that differed from classical methods.

A training series and mentors’ assistance enabled teachers to shift their thinking by understanding new concepts, approaches, and terminologies. Mentor Aphrodite described what she saw on her first visits to their ECE centres: “The first time, I saw how the teacher taught in the classroom was asking children to sing, write, calculate, and read. There was no classroom learning media, only a blackboard, chalk, or books.”

Teacher Diana illustrated how she changed her understanding of ‘naughty children’ that was common to describe very active children. She commented, “There are three of us teaching in our ECE centres. We used to think that our students were naughty, but now we know that there aren’t naughty children; they are very active children.”

The concept of early literacy and numeracy in early childhood was also something new for mentors and teachers. Teacher Elsa illustrated this view:

We did not understand how to teach early children appropriately, did not know the theme and sub-themes, and only taught them about reading. But after we participated in the training, we knew we should only introduce literacy, not teach them to read. (Teacher Elsa)

Several teacher participants reported that their understanding of emancipated learning in the national ECD curriculum improved. These changes related to planning, implementing, and assessing children based on the National curriculum.

Yes, many changes; for example, I became more confident because I understood the new curriculum. I can develop teaching plans that I was previously unable to do. I can manage the classroom environment; lastly, I can create learning media and teaching aids using recycled materials or natural materials. (Teacher Belle)

Teacher and mentor participants mentioned that teachers used local materials or ‘loose parts’ to create learning media. Loose parts are removable items that can be disassembled according to children's learning needs. Loose parts concepts and examples were included in teacher and mentor training facilitated by the national trainers. Teacher Jasmine illustrated this view:

Now we use materials from the surroundings of the ECE centre, which we call ‘loose parts’, recycled materials, and other used items, so we do not need money to buy toys from the factories. We can also develop a daily and monthly teaching programme. (Teacher Jasmine)

Teacher Moana reported that during on-the-job training, the teachers also learned new terms called ‘invitation sentences’ to ask open questions:

I am thankful to Athena, my mentor. She supported me and allowed me to participate in the on-the-job training in Bandung. I learned about child development indicators and play-based activities. From the training and the on-the-job training, I learned how to make ‘invitation sentences’ for children. I learned how to let children explore the environment, and I still use the technique today. Recently, my mentor asked me to share my experiences in the ECE teachers’ cluster meeting. (Teacher Moana).

Changes to pedagogical practices

Most research participants indicated changes in teachers' pedagogical practices. Nine teachers mentioned they used locally made educational toys; eight teachers reported they developed teaching plans, and six teachers shared that they changed their practice from teacher-centred to student-centred approaches. Most of the teacher participants attributed their pedagogical practices to the guidance from the mentoring programme.

Teacher Mulan described changes to her pedagogical practice, including the use of recycled items to create educational toys and strategies for engaging children in storytelling:

From my previous experiences, before we had mentors, my teaching practice was more classical: lecturing and telling children what to do. After my school participated in the teacher mentoring programme, I used recycled materials to develop many projects with children. I no longer tell children what to do. Additionally, children are now more engaging and ask me more questions. I told the children stories in the past, but it was one-way communication. Unlike my past approach, which primarily involved telling stories to children, I also explored children's stories, allowing us to share and listen to each other's stories. (Teacher Mulan)

Teacher Anna described shifting to the new practice centred on providing more educational toys and allowing children to select the toys:

The way I teach is now different; I do not force what I want the children to learn, but I observe children's interests first. We used to prepare limited learning materials and asked children to play according to the prepared materials. Now it is different. I still designed the materials, but with a greater variety of materials, then I asked the children to choose what they wanted to play in a specific, agreed-upon time. I observed that children were more interested in various colourful materials. (Teacher Anna)

Mentor Phoebe encouraged teachers to use teaching aids from local materials. She said, "I gave examples of how to use teaching aids from local materials in our centres' environment to deliver early literacy and numeracy skills to the children."

Changes in planning were also mentioned by research participants. Teacher Jasmine and Teacher Belle reported that they could now develop teaching plans and use locally made teaching materials:

The changes I made are in the development of teaching plans, starting from daily, weekly, and monthly lesson plans. I could arrange my classroom environment to support my learning plans. (Teacher Jasmine)

After the training, the mentor helped us develop teaching plans. We developed daily and weekly teaching plans; we could make them ourselves now. We no longer need factory-made toys because we can create our own toys relevant to the themes or the sub-themes of learning. (Teacher Belle)

Mentor Phoebe and Aprodite claimed that their teachers changed their pedagogical practice to be more child-friendly. Mentor Phoebe noted that the teachers altered their speech patterns and intonations, and adjusted their physical approach to the children:

Teachers used more positive language and lowered their voices when speaking to the children. The teachers used to shout and use harsh language. Now that they know the technique, they don't have to yell when teaching the children. The teachers are more gentle and maintain eye-to-eye contact with the students so that the students don't need to look up. They preferred to bend when talking to the children. (Mentor Phoebe)

Similarly, Mentor Aphrodite described that her teachers also changed how they communicated with and disciplined children. There were, however, some exceptions to this:

When I first arrived at one of the ECE centres in the first month, the teachers in that school hit the children. Other schools used sticks not to hit the children, but to hit the tables to make them quiet. Most teachers changed their practices; they don't hit children anymore, use learning media to teach, and lower their voices while teaching (it used to be very loud and harsh). However, based on my observations, a few teachers are still reluctant to change their practice. (Mentor Aphrodite)

Storytelling was also a method commonly used. Through the mentoring programme, teachers at the pilot centres participated in a series of training sessions facilitated by international trainers from the University of Waikato. The teacher participants still remembered and implemented some activities from the training, such as making story books, practising telling stories to the children, and creating activities based on stories that had just been read.

Teachers Aurora, Merida, and Tiana illustrated these views:

I have changed my teaching practice. For example, telling stories to the children became a daily routine, and I welcomed children through the gate, something we did not do in the past. I included all children's development aspects in the daily teaching plans and involved children in creating educational toys using local materials. Sometimes, the children helped me add more items easily found in the centre's environment. (Teacher Aurora)

For example, when children arrive at the centre, I ask them to fill out a 'self-attendance' form to introduce them to early literacy and encourage them to put their signatures on it. They can put anything in that signature section; even some scratches are acceptable. (Teacher Merida)

From the training I joined in July 2017 and from the mentoring workshop with Ms Donella in 2019, there was a significant change in terms of the use of local and traditional games for the children. (Teacher Tiana)

Teachers also provided many opportunities for children to express their interests and explore their talents. Teacher Megara highlighted this view:

I changed my instructions to the children. For example, I used to decide what objects children had to draw in class. Now I have just prepared crayons and other coloured pencils, and children can draw any objects according to the themes. (Teacher Megara)

Manuel stated that in the non-model ECD centres, the children were taught using the classical method, while in the ECD models, they have a child-centred teaching method:

In other non-model schools, children were taught to sing, played games during break, did a little bit of singing, and then were sent home. Conversely, in the ECD models, the children received learning through play methods. The pilot centres have the curriculum, teaching programme, schedule of the themes, learning plans, and distributed tasks amongst the teachers. (Manuel)

These findings indicate a substantial shift in teachers' pedagogical practices from teacher-centred, lecture-based approaches toward more child-centred, play-based, and interactive learning environments. Participants consistently attributed these changes to the mentoring programme, which strengthened teachers' capacity in lesson planning, the use of locally sourced materials, positive communication strategies, and responsive classroom practices

Progressive development of mentors' knowledge and skills

This theme was highlighted mainly by the government and development agencies' representatives, as they were more aware of the limitations of one-off teacher training. Thus, the sharing of knowledge and skills during the mentoring session was perceived as essential to support the teachers' pedagogical practice. Fewer government and development agency participants commented on how mentoring practices supported teachers' pedagogical practices. Monisha, Ticiania and Inayah shared that to support teachers' pedagogical development, the development agencies and the government should (1) provide mentors with appropriate knowledge and skills and (2) transfer knowledge from the mentors to the teachers. Monisha illustrated these views:

I think for a really big change, it has to take one step at a time. So, I'm so happy that this programme has a sustainable impact on the policy of the Ministry of Education to replicate the programme. However, to create a long-term system, I think it takes a long-term intervention, then yes, what I believe from the start is the knowledge transfer or the capacity building that I think will stay longer in this community of practice within the targeted area, but to maintain the system, it's also one of the challenges of the local government. (Monisha)

Monisha noted that providing mentors with appropriate knowledge and skills would benefit both the teachers' pedagogical practice and the children.

I believe we have achieved more than 90% of the planned outcome indicators. Especially in the mentoring system, we have improved the capacity of the teachers through mentoring. We have set up a comprehensive system for mentoring, and we have developed many materials and learning tools for teachers and mentors to use in their work. The last benefit is to the children. So, it shows the impact on the children, right? We showed the significant impact on the children; we showed the significant impact from the learning assessments that they have improved their learning outcomes. (Monisha)

Ticiana outlined that an effective ECE teacher mentoring programme combines training and mentoring:

Our strength is that we have effective mentoring, in addition to a series of training. It is like, after the training, the teachers did not 'go home alone'. The mentors accompanied them throughout the 'journey'. This is a simple process; as the teachers, you join the training, followed by mentoring. Back to the ECE centres, as a teacher, you try to match the theories [from the training] with your pedagogical practice. (Ticiana)

Ticiana discussed how the mentoring sessions helped mentors and teachers develop their knowledge and skills, beyond the ECE teacher cluster meetings:

There is a space to discuss between the mentor and the teachers, and they call it a mentoring session. We need an effective mentor to handle the conversation and conduct mentoring sessions. Sometimes, the teachers asked questions, but the mentor did not know the answer, and the teacher received no response. There is another forum where the mentor would bring up the issue at the ECD cluster meeting and discuss the problem with the other teachers. The teachers could find the answers or alternative solutions from the mentor or from the cluster meetings. The mentors' assistance was running effectively both at the centre level and at the cluster level. This is what I think can make some changes happen in teachers' pedagogical practice. (Ticiana)

Perceived changes to children's learning and development

Participants perceived that changes in teachers' practices associated with the mentoring programme contributed to improvements in children's learning, development, and behaviour. Five government and development agency participants also described perceived benefits of the mentoring programme for children, drawing variously on programme evaluation reports, observations, and their professional experiences. Some participants referred specifically to programme evaluation findings when discussing changes in children's learning outcomes, while others described indirect benefits arising from changes in teaching practices, learning environments, parental engagement, and service coordination. It is important to note that this study did not directly assess children's developmental or learning outcomes. The findings presented in this section therefore reflect changes observed and reported by teachers, mentors, and programme stakeholders, rather than independently measured child outcomes. Where participants referred to findings from programme evaluation reports, these are presented as contextual evidence rather than as outcomes directly measured in this study.

Teachers and mentors reported that children appeared to become more independent, creative, and actively engaged in learning. They described specific behavioural shifts, including increased confidence, greater participation in classroom activities, and improved peer interactions. Children were frequently described as happier, more willing to ask questions, and more independent in their learning. Teacher Anna observed that "children are happier; they pay more attention to educational toys made from local materials. I saw the children become more focused and ask more questions about their learning." Similarly, Teacher Elsa noted, "I observed changes in the children. They looked happier, were more independent, and seemed more ready to continue their primary education."

Beyond classroom engagement, teachers described changes in children's prosocial behaviours. Several teacher participants reported that children became more confident, more cooperative, and more respectful towards peers. Teacher Aurora explained that children were "more confident, help each other, respect each other, and less selfish," suggesting improvement in social interaction and empathy. Importantly, some teachers explicitly compared children's behaviour before and after the mentoring intervention. Teacher Mulan reflected, "With the children, they are better now. There are more activities in the classroom; the children were not afraid, more independent, brave to talk, and more confident. In the past, they tended to be scared and sat like statues." This contrast highlights a shift from passive

classroom behaviour to more active engagement. Teacher Tiana similarly described increased cultural confidence: “Children were shy about wearing traditional clothes, singing in their native language, dancing traditional dances, and playing traditional games. Nowadays, children are happy and proud doing these activities.”

These findings suggest that mentoring influenced not only teachers’ pedagogical practices but also children’s classroom participation, social confidence, and cultural expression. Ticiana articulated that the children's behaviour was more engaged in their learning and they enjoyed their time in the centres as a result of the learning through play method:

They are excited to learn, and they are interested in hearing the teacher's stories. Sometimes, when it was time to go home, the children did not want to go home yet; they still wanted to play in the centres. This means that the new teaching method is interesting. It makes them [the children] want to keep playing, but they don't just play in the centres because the teachers can help them learn through play. (Ticiana)

Ticiana added that the children developed their motoric and cognitive skills without losing the joy of playing at the ECE models:

The children's motor skills develop well because they have outdoor materials to support physical improvement. The children also developed their cognitive skills through games and can recognise letters and numbers through enjoyable activities. (Ticiana)

The national ECE curriculum contains guidelines on age-appropriate developmental aspects for preschool children developed by the Ministry of Education, Culture, Research and Technology. In reference to this, Teacher Ariel and Teacher Diana claimed that they observed that some stages of child development had been achieved, such as cognitive skills, physical development, language and social-emotional development:

I observed some aspects of development in my students; they were more active at school. I observed that children had developed their physical, motor, language, and cognitive skills. They speak, combining their native language and the national language. They could also make a small project using wooden blocks and make a telephone from used mineral water cups. (Teacher Ariel)

For example, children are more creative and imaginative. They can recognise numbers and letters through play. It has changed from the first few months, when they needed more help from their parents to stay at school, to accompany them. Now, they become more independent and braver. (Teacher Diana)

Mentor Phoebe noticed changes in the classroom arrangement and how the teachers arranged indoor toys. For Phoebe, the children showed good characteristics such as being independent, helpful, and healthier:

I think the children are not easily bored with some activities with teachers because the classroom arrangement is not as monotonous as it was. Teachers divided the activities into several steps. Teachers may ask the children to jump while singing, connect some puzzles, or build blocks or role-play in the main activities. Sometimes, the children asked for more activities when teachers only provided two activities in the main session. The children are more independent. They can return the toys to the shelf according to the types and the storage boxes. Furthermore, children are used to praying before eating snacks and washing their hands. (Mentor Phoebe)

Teacher Moana said she was surprised that her students' achievement exceeded the learning target:

I observed that the children's development improved. I did not think my students could imagine beyond the materials I had prepared when they were playing with the *loose parts*. For example, one day, I had a theme about the market, so I prepared materials to support how children learn and experience going to the market. It turned out that the children were not only learning about buying and selling in the market, but they were pretending to have a lot of money from selling something and the need to put the money in the bank. I then set up another corner for them to role-play about saving money for the bank. I like that the idea was not from me but from them. (Teacher Moana)

Several government and development agency participants also referred to programme evaluation reports when discussing perceived benefits for children. Moses, for example, drew on baseline, midline, and end-line findings to support his view that the programme had contributed to improvements in children's learning outcomes.

Perhaps the most important thing is that we start from the benefits for the students. I read the evaluation report submitted to me, where it was clearly stated that, from the intervention, there were some observable changes in student learning outcomes by comparing the baseline, midline, and end-line surveys, citing the topic of student learning outcomes. Now, it means that this program has benefits for the students. (Moses)

Of course, from our end-line survey, we can see the improvement in the children's outcomes due to these learning environments, especially when we compare the children who did not enrol in the ECD centres. I think this becomes like an indirect benefit for the children when we appropriately set

the learning environment; it becomes a determining factor in improving the children's outcomes as well. (Noah)

Louisa suggested that children were likely to benefit indirectly from the mentoring programme through improved lesson planning and greater diversity in classroom activities. She argued that when teachers exchange ideas and learn from one another during mentoring, children are exposed to a broader range of play-based learning experiences than would occur if a teacher worked in isolation.

Noah mentioned that the children benefited from the involvement of different actors in the mentoring programme, including the mentors, teachers, and parents:

The children's benefits are numerous because, through the mentoring programme, teachers can communicate more effectively with parents, for example, during regular PTA activities. During the PTA meeting, parents received parenting sessions facilitated by mentors and teachers. Some topics included positive communication with children, discussing violence against children, early stimulation at home, and health and nutrition. (Noah)

He added that parents' understanding was improved and benefited children:

The parents learned how to conduct early stimulation, such as playing with children at home, and how children can learn from these activities. The parents were told about child safety and security. I think the mentors and teachers also encouraged the parents to drop off and pick up the children at the ECE centres, not letting them walk to and from school. The parents also understand how they can praise their children positively, not violently, and treat them. The parents can learn how to nurture and educate their children at home, including how to maintain their health and nutrition at home (Noah)

Noah reported improvements in children's hygiene practices, including handwashing before and after eating:

We provide this kind of hand-washing station and clean toilets not only for the infrastructure, but the children have also been taught how to wash their hands before and after eating. This is a way to improve their hygiene behaviour. For example, through the training, we also supported the teacher with creative learning methods, enabling children to become more curious about learning and more active during the learning sessions. When I say learning, it means playing [learning through the play method] in the ECD centres. (Noah)

Still related to health and hygiene, Noah added that children might benefit directly from the mentoring programme, as the mentor worked closely with the local government to improve their support:

And last but not least is how the mentors can support the ECD centres by getting support from the village government to secure the village budget, and then how to engage with other ECD service providers to work together with posyandu and puskesmas [local health services]. Local health services regularly monitor children's health and other indicators of child development. The mentors conducted advocacy work for specific village budgets, such as the budget for supplementary food for children. As mentioned before, this kind of support can directly benefit the children.
(Noah)

Based on his observation when visiting the ECE centres, Manuel stated that there was no difference in the building facilities between the ECE models and non-models; the difference lay in the services. Manuel said there was an attempt to fulfil the child's rights in the early childhood development centres:

There are not many differences from ordinary preschools, but they are different in the service pattern; the learning pattern is not the same as that of other preschools. Based on my experiences doing field visits, there are some changes; the teachers and ECD managers in the pilot schools tried their best to fulfil some aspects of the child rights. That is what I witnessed from the pilot schools. (Manuel)

Taken together, these accounts suggest that participants perceived changes in children's engagement, independence, learning, and behaviour alongside improvements in teachers' pedagogical practices and learning environments. These changes appear to have occurred indirectly through strengthened pedagogical practices, enriched play-based environments, and enhanced collaboration with parents and local service providers. However, these findings should be interpreted as participants' reported observations and perceptions rather than as evidence of a direct causal relationship between mentoring and child outcomes. Establishing such a relationship would require direct and systematic assessment of children's outcomes, which was beyond the scope of this study.

The findings at the chronosystem level demonstrate that time was a decisive factor in the mentoring process. Over sustained periods of engagement, shifts in professional mindsets gradually translated into evolving pedagogical practices, strengthened mentor competencies, and observable improvements in children's learning and behaviour. Rather than producing

immediate results, the mentoring programme operated cumulatively, with repeated interaction, continuity, and stability enabling deeper transformation across individual, relational, and classroom levels. The chronosystem thus underscores that meaningful change in ECE settings emerged through sustained and iterative processes over time.

Summary

This chapter has explored how the mentoring programme unfolded across the different bioecological layers, revealing both its promise and its limitations. The accounts of mentors and teachers point to mentoring as more than a technical exercise; it is a relational, contextual, and systemic process. While the programme fostered shifts towards child-centred pedagogy and greater teacher confidence, it also exposed structural and interpersonal tensions that can constrain its impact. What stands out is that the very conditions enabling growth, such as trust, openness, and supportive leadership, are fragile and deeply influenced by cultural, institutional, and historical contexts. These insights highlight mentoring as a dynamic practice embedded in a wider bioecology model, rather than a one-size-fits-all intervention. The findings suggest that the programme's effectiveness cannot be understood solely at the classroom level but must be viewed in relation to broader power dynamics, policies, and community values.

The next chapter (Discussion) moves beyond descriptive to critically interpret the results through Bronfenbrenner's PPCT framework. It integrates insights across the process, person, context, and time dimensions, situates them within existing national and international scholarship, and examines how mentoring operates within Indonesia's policy and cultural landscape. The chapter further analyses the tensions, enabling conditions, and structural constraints identified in this study.

CHAPTER VII: DISCUSSION

Introduction

This chapter moves from what happened to what it means. Using Bronfenbrenner's PPCT model as an analytic lens, I interpreted how mentoring mechanisms (Process and Person) interacted with the context (micro, meso, exo, and macro) and time (chronosystem). The aim is to make the findings usable for the government, development agencies, academics and practitioners by linking patterns in the data to practical design choices.

The study's main objective was to examine how the ECE teacher mentoring programme in Kupang supported teachers in enhancing their pedagogical practices, and to identify the enablers and barriers within the mentor-teacher relationship across contexts. Thematic analysis was undertaken and then interpreted through the PPCT elements to explain how and why change occurred or stalled.

This chapter is organised as follows: first, I clarify how the PPCT model is used to interpret, rather than repeat, the findings. Second, I discuss the mechanism of change: the proximal processes that mattered and the person characteristics that helped or hindered them. Third, I examine the contexts that shaped mentoring, moving outward from the microsystem and mesosystem to the exosystem and macrosystem. The chapter closes with the role of time (chronosystem) in sustaining or disrupting change.

In this chapter, I use Bronfenbrenner's PPCT model as an interpretive frame rather than a template for re-presenting results. I first consider the mechanisms of change (proximal processes and person characteristics). I treat routine mentor-teacher interactions as proximal processes (process) and read their effectiveness in light of person characteristics for mentors (e.g., pedagogical expertise, integrity, availability, relational stance) and for teachers (e.g., openness, confidence, follow through). These mechanisms are then situated in context, from everyday classroom relationships (microsystem) and professional networks (mesosystem) to organisational supports (exosystem) and policy/culture (macrosystem), and examined through time as patterned rhythms and disruptions in practice (e.g., weekly visit cycles, programme phases, COVID-19 shifts). This approach aligns with the mature PPCT emphasis on attending

to micro-, meso- and macro-time while remaining sensitive to organisational timing that shapes exosystem conditions (Bronfenbrenner, 2005; Tudge et al., 2009).

Analytically, I proceed in four steps: (1) identifying recurring interactional patterns that functioned as proximal processes; (2) specifying the mentor and teacher attributes that strengthened or weakened them; (3) locating these dynamics within micro/meso/exo/macro settings; (4) and tracing temporal consistencies and disruptions that amplified or dampened effects. In doing so, I adopt Bronfenbrenner's distinctions among micro-time (moment-to-moment exchanges), meso-time (regularity of interactions across weeks), and macro-time (historical/period effects), while keeping culture visible not only at the macro level but also as practices that permeate closer settings (Bronfenbrenner, 1999; Vélez-Agosto et al., 2017). In short, PPCT helps connect what participants did to the conditions that made change more or less likely.

Proximal processes: The mechanism of change

This section explains how mentoring worked in practice by outlining the proximal processes most evident in the data and the mentor/teacher attributes that made those processes productive or fragile, before connecting them to reported development outcomes.

Three recurring interactional patterns emerged clearly in the data: (1) assisting and guiding practice, (2) knowledge sharing, and (3) collaborative, non-hierarchical work. Teachers responded most strongly to in-situ observation, followed by specific feedback, and to live modelling of lessons or routines they could immediately adapt. These findings echo Bronfenbrenner and Evans' (2000) argument that effective proximal processes occur regularly, extend over time, and become progressively more complex. Mentor regularity was crucial: teachers consistently contrasted mentors who visited weekly and provided sustained feedback with those who appeared only occasionally and were perceived as abandoning their role. In this sense, regular visits functioned both as a proximal process in their own right and as a micro-time component of the microsystem, signalling commitment and enabling relationships (Augustine-Shaw & Liang, 2016; Collin, 2019; Haines & Popovich, 2014; Watson, 2019).

Observation, feedback and modelling were not isolated techniques but relationally embedded processes. Teachers valued mentors' observations when these were followed by constructive

dialogue and concrete feedback that they could trial in their own classroom. Modelling was particularly effective when feedback and observation were insufficient to effect change, enabling teachers to observe alternative pedagogical approaches enacted in real-time. The combination of observation, feedback, and modelling thus illustrates how proximal processes in mentoring operated across micro- and meso-time, gradually building pedagogical complexity and teacher confidence (Hudson, 2010; Richter et al., 2013).

The culture of knowledge sharing further strengthened mentoring processes. Mentors who translated strategies from training or CPD into classroom practice were regarded as supportive, whereas those who withheld or lacked knowledge were seen as ineffective. Teachers emphasised that trust and role clarity were critical: when these conditions were present, knowledge flowed; when absent, it stalled. This finding supports Johnson et al.'s (2023) argument that clarity and transparency are pivotal in establishing mentoring relationships, and aligns with Pareira and Mohiya's (2021) emphasis on trust as a prerequisite for knowledge transfer. In Kupang, knowledge sharing functioned simultaneously as a proximal process, shaping micro-cultural norms and interactional climates, and as a temporal process unfolding through repeated visits. Evidence from this study, consistent with related research, indicates that such dispositions either activate or constrain proximal processes by influencing engagement and reciprocity (Allen & Eby, 2003; Bosman, 2015; Bronfenbrenner, 2005; Cho & Lee, 2021).

Personal characteristics: Generative and disruptive comparison

Bronfenbrenner and Ceci (1994) emphasise that generative personal characteristics can set proximal processes in motion, while disruptive ones may prevent them from unfolding. In my study, both mentor and teacher attributes acted as enablers or barriers to mentoring relationships at the microsystem level, directly shaping the quality of observation, feedback, modelling, and knowledge-sharing processes.

Mentor characteristics

Mentor attributes that enabled positive mentoring included pedagogical expertise, accountability, integrity, availability, and relational competence. Drawing on Bronfenbrenner's framework, these attributes can be understood as personal characteristics

that either invite or sustain proximal processes. Demand characteristics, visible personal qualities that elicit particular responses from others, such as friendliness (“*ramah*” in *Bahasa Indonesia*), were particularly valued. Teachers highlighted warmth, politeness, and humility as central to building trust and perceiving mentors as approachable allies rather than school supervisors. This aligns with Ewing’s (2021) discussion of approachability and resonates with Indonesian cultural values reflected in the proverb “*padi semakin berisi semakin menunduk*,” which associates knowledge with humility.

Force characteristics – dispositions that shape the direction and persistence of interactions, such as being supportive, reliable, and accountable- further strengthened mentoring relationships. Mentors who consistently maintained visitation schedules, offered tailored pedagogical guidance, and extended psychosocial support (for example, mediating with village authorities) were perceived as committed and trustworthy. Conversely, lapses in accountability or integrity, including irregular visits, superficial engagement, or misconduct, were perceived as serious breaches that undermined credibility and discouraged teachers from adopting new practices.

Teacher characteristics

Teacher dispositions mattered equally. Willingness to be mentored emerged as a demand characteristic: those who entered the relationship open to advice and eager to learn were more likely to activate reciprocal processes. Force characteristics such as openness and responsibility reinforced this, with teachers who embraced feedback and shared responsibility for the relationship progressing further than those who remained passive. Resource characteristics, like confidence and follow-through, determined whether new practices were actually trialled and sustained in classrooms. Evidence from my study and prior works (Allen & Eby, 2003; Bosman, 2015) suggests that when teachers are responsive, reflective, and willing to provide feedback, even to mentors, the relationship deepens and proximal processes gain traction.

Barriers and disruptive traits

Not all characteristics were generative. Mentors who displayed arrogance, dishonesty, or unresponsiveness created distance rather than trust. Some teachers also resisted mentoring, showing low motivation or treating visits as irrelevant. In these cases, even when mentors attempted observation or feedback, the interaction remained superficial and failed to develop

into a sustained process. These findings align with Maria-Monica and Alina (2014), who argue that mentoring relationships tend to deteriorate when mentors demonstrate limited commitment, shallow engagement, or lack clarity and confidence in their role.

Overall, the most effective pairings combined mentors' pedagogical and relational reliability with teachers' openness and responsibility. Research on mentoring consistently emphasises that relationship quality, trust, and mutual engagement are central predictors of mentoring effectiveness (Allen et al., 2008; Ragins & Kram, 2007). Under these conditions, friendliness, accountability, willingness, and follow-through functioned as generative characteristics in Bronfenbrenner's (2005) sense, enabling observation, feedback, modelling, and knowledge-sharing to operate as sustained proximal processes rather than isolated interactions. Where either party's dispositions were disengaged or resistant, mentoring interactions tended to become procedural or transactional, a pattern similarly noted in studies of ineffective or low-quality mentoring relationships (Eby et al., 2013; Jones & Brown, 2011). In such cases, developmental gains were limited, reinforcing the importance of reciprocal commitment in sustaining professional growth.

The next section moves to examine the broader contexts that shaped these mentoring mechanisms. The analysis proceeds from the microsystem (individual teacher-mentor conditions), to the mesosystem (interpersonal and networked interactions), then to the exosystem (organisational supports and constraints), and finally to the macrosystem (policy and cultural influences).

Microsystem dynamics: Individual enablers and barriers

Having examined the core mechanisms of proximal processes and person characteristics, I now turn to the microsystem, the immediate mentor-teacher relationships, where those mechanisms were enacted and shaped by cultural expectations, daily practices, and interpersonal dynamics. The findings reveal that individual enablers, such as rapport, regular presence, and clarity of roles, often supported teacher learning, while barriers, including generational gaps, entrenched personal values, and disruptive behaviours, undermined reciprocity and slowed change.

Generational and experiential gaps emerged as a central micro-cultural barrier. Traditional mentoring literature often assumes that mentors are older, more experienced, and hold greater

authority than mentees (Kram, 1988). In Kupang, however, this pattern was inverted: the average mentor was 31, while teachers averaged 38 years of age. This inversion complicated role expectations. Cross-cultural mentoring research suggests that authority expectations are deeply embedded in socio-cultural norms, particularly in collectivist and high power-distance contexts (Clutterbuck et al., 2017; Ghosh & Reio Jr., 2013). In the Kupang context, cultural norms emphasising respect for seniority influenced mentoring interactions. Younger mentors often felt hesitant to question or challenge the practices of older teachers. These culturally embedded expectations made it challenging for younger mentors to question or challenge the established practices of older teachers.

The literature on mentoring and role ambiguity has similarly noted tensions when hierarchical assumptions are disrupted (Merriweather & Morgan, 2013). Findings from this study echoed these dynamics. Teachers frequently addressed younger mentors using the honorific *Kakak* (“older sibling”), even when the mentor was younger. Although this softened hierarchical distance and conveyed respect, it also underscored ambiguity in perceived authority. Authority in such contexts was not automatically conferred by formal role but had to be established through relational competence and credibility (Ghosh, 2013; Ragins, 2016).

Alongside age and experience, personal values represented another barrier at the microsystem level. Many teachers, particularly those described by mentors as ‘senior teachers’, held traditional beliefs about discipline, often using rattan canes to maintain classroom order. This practice reflects a wider macro-cultural influence in Timor, where strict discipline is socially legitimised. Such values hindered the uptake of mentoring, as teachers resisted learner-centred pedagogy grounded in child rights and protection principles. Wringe (2020) has observed that challenging authoritarian traditions in education remains a deeply problematic issue. In Kupang, the lack of sustained professional development opportunities (Qoyyimah, 2018) left many teachers with limited exposure to alternative methods. Mentors, therefore, had to act as change agents, introducing play-based and child-centred approaches. While some teachers gradually shifted their practice, others disengaged, justifying their use of force through cultural rationales. In these cases, mentoring relationships stalled, as conflicting value systems blocked the establishment of trust and reciprocity.

The findings also show how individual mentor characteristics interact with micro-time (regular visits) and micro-culture to activate or dampen proximal processes. For example,

Mentor Aphrodite, described as supportive and approachable, gained trust by consistently visiting, clarifying her role, and demonstrating humility in interactions with older teachers. Over time, these behaviours enabled a respectful and collaborative relationship, illustrating how personal dispositions, combined with micro-time consistency, produced developmental change (Bronfenbrenner & Morris, 2006). In contrast, disruptive traits such as arrogance or disrespect undermined relationships. Teachers perceived mentors like Cassandra as selfish and dismissive; their mentee-teachers responded passively, withholding input and avoiding engagement. Such dynamics reflect patterns of dysfunctional mentoring identified in contemporary mentoring research, where negative mentor behaviours undermine trust, reduce relational reciprocity, and weaken developmental outcomes (Eby & Robertson, 2020; Eby et al., 2013). When mentors are perceived as dismissive, arrogant, or inconsistent, mentees often disengage, leading to superficial interactions rather than sustained proximal processes (Ragins, 2016).

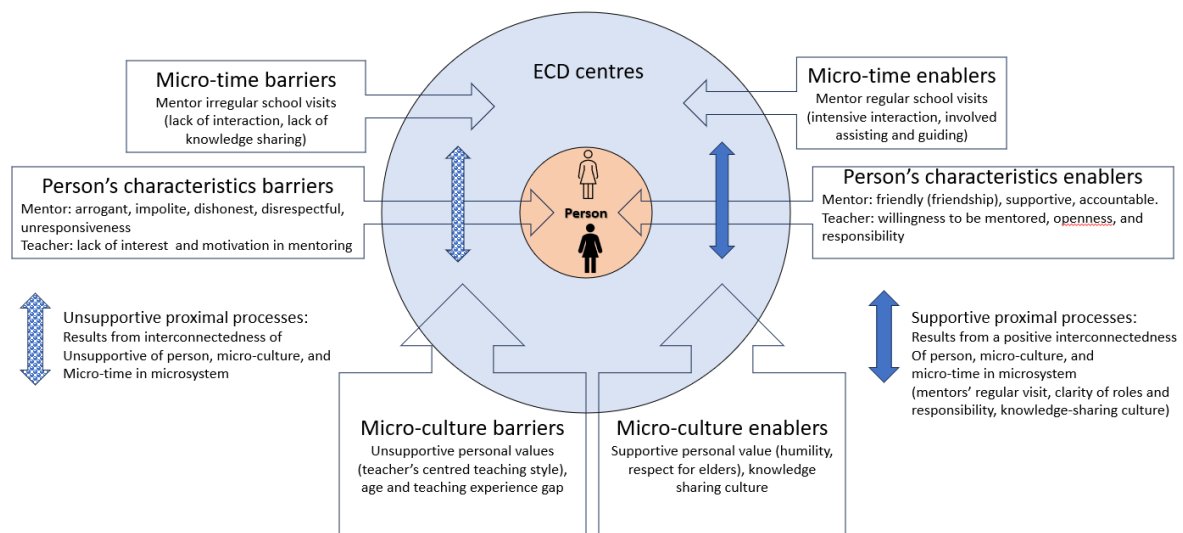
Mentoring also provided a platform for personal growth at the microsystem level. For mentors, initial uncertainty and lack of confidence (Achinstein & Davis, 2014; Bray & Nettleton, 2007; Clarke et al., 2014; Gotian, 2016) gave way to greater assurance as they received training, workshops and curriculum support (Howe, 2006; Kupila & Karila, 2019; Liu et al., 2021; Ressler et al., 2015). This growth aligns with Stelter et al.'s (2021) assertion that high-quality training sustains effective mentoring. For teachers, many of whom began their careers with limited qualifications (Bett, 2016; Schwartz et al., 2019), mentoring boosted confidence in applying child-centred approaches. Survey data indicated that 177 teachers reported confidence in using such methods, with only 22 expressing uncertainty. These outcomes align with Barrett et al.'s (2019) findings, which suggest that mentoring supports teachers' self-belief and competence.

Finally, psychosocial support was an important enabler within the microsystem. Mentors not only provided pedagogical guidance but also emotional reassurance during conflicts with managers or when teachers considered leaving the profession. This mirrors Kram's (1988) distinction between career and psychosocial mentoring functions and aligns with evidence that emotional support is a prerequisite for effective mentoring (Gakonga, 2019; Hobson et al., 2009; Nabi et al., 2021). Such support was critical for teacher retention, aligning with Schaack et al.'s (2022) argument that professional development opportunities influence teachers' decisions to remain in the profession.

The interrelationships among person characteristics, proximal processes, microculture, and microtime are presented in Figure 13.

Figure 13

Microsystem Interrelation Components Impacting the Mentoring Relationship



This figure illustrates how mentoring relationships at the microsystem level were shaped by the interaction of person characteristics, micro-time conditions, and micro-cultural norms within ECE centres. Proximal processes, manifested through observation, feedback, modelling, and knowledge-sharing, formed the core developmental mechanism. When generative personal dispositions (e.g., humility, openness, accountability) aligned with sustained micro-time engagement (regular visits) and supportive micro-cultural norms (respectful collegiality and knowledge-sharing), mentoring relationships evolved into reciprocal and growth-oriented interactions. In comparison, disruptive traits, irregular engagement, and hierarchical rigidity dampened proximal processes, resulting in superficial exchanges and limited professional development. The figure, therefore, visualises mentoring not as a static role arrangement but as a dynamic ecological interaction system. Two case examples of microsystem dynamics in ECE centres serve as illustrations.

Case 1.

Mentor Aphrodite, with supportive, accountable and approachable characteristics, visited an ECD centre regularly and met Teacher Diana, who was willing to be mentored, open and responsible. At the beginning of her visit, Aphrodite clearly communicated her roles and responsibilities while serving as a mentor at this sub-district. During regular visits, Aphrodite

frequently shared pedagogical knowledge from mentoring training and was willing to assist and guide Teacher Diana to develop teaching plans. As Teacher Diana was much older than her, Aphrodite was mindful of the culture of respect for elders and being humble while interacting with her at the ECD centre. This example illustrates that some factors in the microsystem are interrelated and serve multiple functions, such as mentor regular visits, which could be identified as micro-time enablers and proximal processes.

Case 2.

Mentor Cassandra was perceived by Teacher Moana as an arrogant, disrespectful, and selfish mentor. Although Teacher Moana was not Mentor Cassandra's mentee-teacher, she observed how Mentor Cassandra interacted and communicated with her mentee-teachers during various occasions (training, meetings, CPD forums). Teacher Moana commented that Teacher Jasmine (one of Mentor Cassandra's mentee-teachers) looked under pressure, was afraid and did not talk much when Mentor Cassandra was around; there was no bond between them. Teacher Jasmine seemed to agree with everything Cassandra said during the small group discussion because Cassandra did not care about her mentee-teachers' opinions. When Jasmine was alone with Moana, Jasmine said she was jealous of Moana because Moana had Athena as her mentor. Many other teachers perceived Athena as a humble, smart, friendly, diligent and caring mentor. While Moana was thankful to have Athena as her mentor, she also noticed that other teachers had unpleasant relationships with their mentors. Case 2 illustrates how disruptive characteristics of the mentor could 'invite' undesirable mentee-teacher responses, such as passivity and unresponsiveness. This would make the activation of proximal processes and the achievement of intended developmental outcomes less likely.

This analysis suggests that the microsystem served as a relational filter, where person characteristics, values, and temporal consistency either activated or constrained proximal processes. Trust, respect, and humility enabled younger mentors to navigate cultural hierarchies and support pedagogical change, whereas arrogance or entrenched values hindered reciprocity. At the same time, the mentoring relationship itself contributed to personal growth and psychosocial resilience for both mentors and teachers.

Mesosystem dynamics: Interpersonal enablers and barriers

At the mesosystem level, mentoring relationships in Kupang were shaped by the quality of interpersonal interactions between mentors and teachers, as well as the broader professional networks that extended beyond individual ECE centres. My findings highlight two sets of interpersonal enablers: non-hierarchical and friendship-like relationships, as well as collaborative and reciprocal dynamics, which strengthened trust, communication, and professional learning. Several barriers, power imbalances, meso-cultural influences, incapacitated mentors, and discontinuities in meso-time undermined mentoring effectiveness and weakened relational trust.

Interpersonal enablers

Non-hierarchical relationships and friendships emerged as a critical enabler. When mentors presented themselves as colleagues rather than supervisors, teachers perceived the relationship as more equal and less formal, encouraging openness and learning. This resonates with Larsson et al.'s (2016) argument that non-hierarchical mentoring fosters engaged, emphatic, and sustainable relationships, and with Ewing's (2021) emphasis on non-hierarchical qualities as central to mentoring practice. Similarly, Ambrosetti and Dekkers (2010) conceptualised mentoring as a reciprocal, non-hierarchical process aimed at professional outcomes, while Clutterbuck (2014) conceptualised effective mentoring as 'friendship of peers', a developmental partnership grounded in dialogue and mutual learning rather than hierarchical authority.

In Kupang, participants frequently described their relationship in terms of friendship. Teachers noted that friendliness enhanced trust and encouraged them to share both professional concerns and personal struggles. This reflects early research linking friendship to mentoring effectiveness (Buell, 2004; Gardiner, 2008; Ragins & Kram, 2007; Young et al., 2004). While some scholars have debated the compatibility of friendship with formal mentoring (Beres & Dixon, 2016; Johnson & Ridley, 2008), my findings suggest that collegial friendships enriched the mentoring process, creating a safe environment for vulnerability and growth (Bosman, 2015; Taylor, 2021). Although friendship is not synonymous with non-hierarchy, in practice, the two overlapped in Kupang: teachers viewed

mentors less as evaluators and more as colleagues, reducing hierarchical barriers and encouraging mutual learning.

A second interpersonal enabler was the establishment of collaborative and reciprocal relationships. Within CPD forums and professional clusters, mentors and teachers engaged in joint lesson planning, provided reflective feedback, and co-facilitated workshops. These practices align with McGee's (2019) view of mentoring as a collaborative process involving reciprocal problem-solving and planning, as well as Leeder et al.'s (2022) educative mentoring framework, which positions mentors and mentees as co-learners. Similarly, Kemmis et al. (2014) emphasised relational aspects of mentoring, noting that collaboration transforms mentoring into a partnership of mutual growth. My data support a similar conclusion: teachers reported that mentors who engaged in reciprocal exchanges, listening as well as teaching, fostered stronger relationships and deeper pedagogical learning.

Interpersonal barriers

However, the mesosystem also revealed barriers. The most prominent was power imbalance, where some mentors assumed hierarchical roles, acting as supervisors rather than partners. Teachers described feeling silenced or dismissed, echoing Hobson and Malderez's (2013) warning about judgmental mentoring, which they termed as judgmentoring and Mosley-Wezel et al.'s (2017) argument that power asymmetries persist in mentoring. Bosman (2015) similarly noted that power is inherently asymmetrical, which can undermine reciprocity. Teacher Merida's account of a mentor "acting like a boss" illustrates how hierarchical mentoring breeds resentment and disengagement, leading in some cases to programmatic failure. This resonates with the literature on dysfunctional mentoring (Hezlett, 2005; Hoffman et al., 2015; Limeri et al., 2019), which identifies factors such as abuse of power, absenteeism, and misaligned expectations as those that damage mentoring outcomes.

Power asymmetries in Kupang were reinforced by meso-cultural norms embedded within broader societal value orientations. Cross-cultural research consistently positions Indonesia relatively high on the power-distance dimension, reflecting a tendency to accept hierarchical authority and unequal power distribution (Hofstede, 1980; Hofstede et al., 2010; Rhee et al., 2014; Suseno et al., 2020). In such contexts, hierarchy is often normalised, and subordinates may be less inclined to question superiors or engage in upward feedback (Botero & Van Dyne, 2009; Choudhary & Subramanian, 2021; Kirkman et al., 2006; Ramaswami et al.,

2014). Rather than viewing these tendencies as deterministic, they can be understood as cultural scripts that shape expectations about authority and relational conduct.

Within educational settings, these norms may structure mentoring interactions by reinforcing deference to seniority and constraining open dialogue. In the Kupang mentoring context, such meso-cultural dynamics appeared to sustain deferential interaction patterns, influencing how mentors and mentees navigated authority, feedback, and professional exchange. Some mentors adopted directive roles aligned with hierarchical expectations, potentially limiting collaborative reflection. At the same time, teachers anticipated displays of politeness, humility, and relational sensitivity consistent with Indonesian social etiquette (Wiryomartono, 2020). Departures from these norms, including perceived breaches of respect in speech or embodied conduct, risked undermining trust and relational stability.

From a bioecological perspective, these patterns illustrate how macrosystem cultural values become enacted within meso-level institutional relationships. Cultural orientations such as power-distance do not operate abstractly; they are reproduced through everyday interactional practices that shape the quality and depth of mentoring dialogue. In this sense, mentoring emerges not as a neutral technical intervention but as a culturally mediated and politically situated process, echoing arguments that mentoring relationships are inherently shaped by power and social norms that may either enable or constrain professional growth (Chambers, 2014; Fyall et al., 2020).

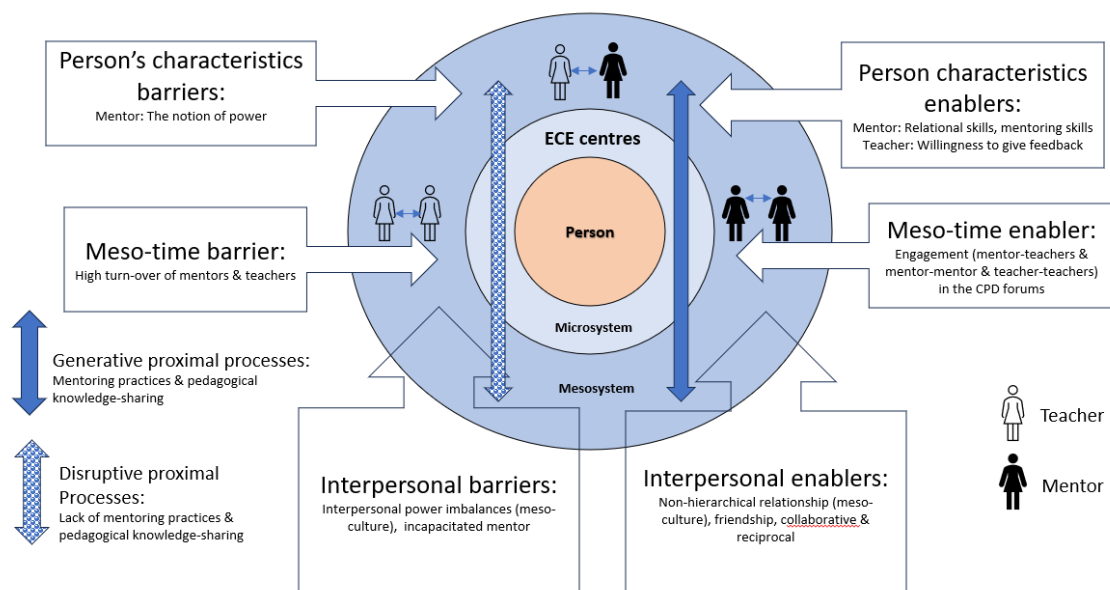
Another barrier arose from incapacitated mentors. Many mentors had limited teaching experience, with only two to three years in their mentoring role, compared to mentee-teachers who had five to ten years of classroom experience. Some teachers questioned the credibility of younger or less-experienced mentors, echoing concerns raised in the microsystem analysis. This aligns with Fyall et al.'s (2020) study, which found that mentors often rely on personal 'hunches' in the absence of structured training, and with Brown's (2020) observations of unprofessional mentoring behaviours undermining trust. While some mentors were committed and skilled, others lacked practical competence, reducing teachers' willingness to engage in reflective practice.

An illustration of mesosystem components can be seen in Figure 14. These include enablers and barriers at the level of a person's characteristics, meso-time, interpersonal domains, which include meso-culture setting, and identified proximal processes. For example, Mentor

Hera was a teacher before her mentoring role in the Olympus sub-district. Many teachers and mentors considered her a ‘good teacher.’ Her characteristics included excellent communication and mentoring skills, which allowed her to provide feedback and demonstrate teaching to her mentored teachers. Most of the teachers eagerly awaited her visit to the pilot centres as she usually brought new pedagogical knowledge and shared this with them. Hera was also a member of the ECE Teacher Association in this sub-district, which made her actively involved in the CPD arena. Mentor Hera is originally from the Olympus sub-district, where she worked as a teacher and then as a mentor. She spoke the same language as the ECD centre community and showed appropriate behaviour relevant to this area. Mentor Hera’s personality, behaviour and interpersonal skills reflected how the mesosystem domain enables the mentor to provide adequate support to the mentee-teachers.

Figure 14

Mesosystem Components Impacting Mentoring Relationships



On the other hand, Mentor Ares was perceived by the teachers as a mentor who tended to dominate the mentor-mentee relationship, creating a power imbalance. He was not originally from the Acropolis sub-district where his mentoring role was situated, and he used to be a secondary teacher. Mentor Ares appeared to lack the capacity to mentor ECE teachers and maintained a position of power over mentored teachers, ECE managers, and local authorities.

He often visited the pilot centres unannounced, making his presence unwelcome to the teachers and ECE managers. Mentor Ares' case illustrated that the mentor's personal characteristics, values and behaviours posed barriers to building effective relationships with mentee-teachers.

Meso-time and continuity

The temporal dimension of the mesosystem, meso-time, also shaped mentoring outcomes. Consistent engagement in CPD forums and cluster meetings strengthened professional networks and broadened teachers' opportunities for collaborative learning (Nolan & Molla, 2018). However, high turnover among both teachers and mentors disrupted continuity. As McLinden (2017) notes, meso-time concerns the regularity and stability of interactions; in Kupang, frequent staff changes weakened relational stability and interrupted the sustained exchanges necessary for effective mentoring.

While broader evidence suggests that mentoring can reduce teacher turnover and strengthen retention (Eby et al., 2013; Schwan et al., 2020; Woo et al., 2019), such benefits depend on stable and ongoing relationships. In contexts marked by persistent personnel changes, mentoring processes struggle to consolidate trust, institutional memory, and professional commitment. Government and NGO staff turnover further compounded this problem, weakening coordination and eroding institutional memory (Ampomah & Cudjor, 2015).

Professional growth through mesosystem interactions

Despite these challenges, many teachers and mentors reported professional growth at the mesosystem level. Teachers described improved pedagogical knowledge, shifting from the traditional 3Rs (Reading, Writing, and Arithmetic) to play-based, child-centred approaches (Dole et al., 2016; Parker et al., 2022), and practical innovations such as creating teaching aids from natural resources. These findings align with Indonesian research linking mentoring to enhanced pedagogical competence (Nopriyeni et al., 2019; Pondagitan & Agustina, 2022). Mentors, meanwhile, gained facilitation skills and expanded professional networks, echoing Hudson's (2010) claim that mentors benefit when they articulate and model pedagogical knowledge.

The mesosystem highlights how interpersonal dynamics, trust, collaboration, reciprocity, and cultural respect enabled mentoring to function as a developmental partnership, while power

asymmetries, cultural misalignments, incapacitated mentors, and discontinuities in meso-time constrained its effectiveness. These findings underscore the relational and contextual complexity of mentoring, confirming Kemmis et al.'s (2014) argument that mentoring should be conceived less as evaluative supervision and more as a collaborative, mutual process of professional growth (Talbot, 2018).

Exosystem dynamics: Organisational enablers and barriers

In this study, the exosystem represented organisational structures, leadership practices, and institutional arrangements that teachers and mentors did not directly control, yet which profoundly shaped the mentoring ecology. These organisational conditions acted both as enablers, such as programme coordination, monitoring visits, and structured training, and as barriers, including leadership constraints, resource limitations, policy gaps, and cultural hierarchies. By conditioning the flow of support, recognition, and resources, the exosystem influenced whether micro-level interactions and meso-level relationships thrived or faltered over time.

Organisational enablers

The findings indicate two significant organisational enablers at the ecosystem level and are discussed below.

Institutional monitoring and symbolic recognition.

Quarterly monitoring and evaluation (M&E) visits emerged as a powerful organisational enabler, operating simultaneously as technical oversight, leadership demonstration, and symbolic recognition. Teachers and mentors consistently described feelings of pride and excitement when their work was acknowledged by visiting district and national officials, as well as representatives from UNICEF and MFAT. As both a researcher and former staff member of the development agency overseeing this programme, I observed how participants interpreted these visits as validation of their efforts, which enhanced their motivation and strengthened their commitment to mentoring. These findings align with Nawaz et al.'s (2021) study in Pakistan, where structured monitoring and evaluation not only revealed systemic challenges, such as untrained teachers, a lack of resources, and limited community

recognition, but also gave legitimacy and visibility to ECE teachers' work in challenging environments.

In the Kupang case, monitoring visits created vital feedback loops for programme management, ensuring alignment between micro-level mentoring practices and broader organisational objectives. More importantly, they reduced the sense of isolation often felt by teachers in rural centres by making their daily struggles visible to policymakers and donors. This symbolic validation reinforced trust in the mentoring structure and amplified relational dynamics at the micro- and meso-levels, as teachers and mentors felt their contributions were both recognised and valued. In line with Bronfenbrenner's (1979) theorisation of the exosystem, these visits illustrated how events occurring in settings where teachers and mentors were not active decision-makers nonetheless shaped their motivation, behaviour, and sense of professional dignity.

Sustained professional development as structural support

Organisational enabler was sustained access to training and professional development, often mandated by development agencies or the district government. These included training on the national ECE curriculum in 2017, mentoring practices in 2018, and the STEAM approach in ECE in 2019, delivered by national facilitators and international trainers. Such structured sequencing introduced increasing levels of complexity over time, reflecting Bronfenbrenner's (2005) description of proximal processes as progressively more complex forms of interaction. Importantly, while mentors and teachers did not decide the content nor the schedule, their professional growth was directly shaped by these organisationally mandated trainings, making them classic examples of exo-proximal processes suggested by Bronfenbrenner and Morris (2006).

Mentors' accounts revealed that international training expanded their skill sets, such as writing children's books, which were later published and discussed by Arndt et al. (2022), while national facilitators deepened their understanding of curriculum standards. These experiences reflect Balduzzi and Lazzarri's (2015) insistence on mentor preparation as a cornerstone of quality mentoring. My findings also reinforce Feiman-Nemser's (1998) conceptualisation of 'educative mentoring,' which depends on both individual agency and structural supports. Compared with the traditional one-off workshops critiqued by Curtis et al. (2013), the Kupang programme demonstrated an integrated model where training was

reinforced by mentoring sessions and CPD forums, ensuring translation of theory into practice. This aligns with Clarkin-Phillips' (2012) observation that teachers often benefit from broader communities of practice, and with Mitchell and Cubey's (2003) call for professional learning that is rooted in practice, encourages critical reflection, and values pedagogical dialogue.

Finally, the evidence from Kupang suggests that mentor preparation cannot be reduced to isolated training events. Echoing Tan's (2013) critique of one-off exercises and Talbot's (2018) argument for sustained professional development to help teachers adapt and evolve, my findings point to the need for comprehensive, iterative learning cycles. These cycles not only built the confidence of mentors and teachers, fostered critical reflection, and increased their willingness to engage in communities of practice (Moloney & Pope, 2023) but also created a structural environment that enabled mentoring to flourish.

Organisational barriers

This analysis identifies four key organisational barriers that influenced the implementation and sustainability of mentoring: (1) leadership and management constraints, (2) resource and access limitations, (3) policy gaps, and (4) cultural dynamics operating within the exosystem.

Leadership and management constraints

At the exosystem level, leadership emerged as both a facilitator and a barrier to mentoring. In Kupang, the leadership role of ECE managers was largely administrative rather than instructional, prioritising accreditation paperwork and facility compliance over pedagogical quality. Mentors were frequently redirected to assist with administrative tasks, such as compiling accreditation dossiers, rather than focusing on observation, feedback, and classroom modelling. This reflects Walter et al.'s (2020) observation that ECE managers essentially set the structural conditions for practice and aligns with Thornton's (2014) argument that local institutional culture can be one of the most significant barriers to mentoring-based educational leadership.

Leadership thus functioned as a filter, shaping how national policy was interpreted and enacted locally, thereby conditioning micro- and meso-level mentoring processes (Fyall et al., 2020). Differences in managerial mindsets reinforced these constraints: while the mentoring programme encouraged child-centred pedagogy and continuous professional development

(CPD), some managers equated ‘quality’ with tangible assets such as infrastructure or equipment and dismissed CPD as unnecessary. These views directly contradicted the mentoring programme’s intent, which prioritised pedagogical improvement and reflective practice. As Greaves and Bahous (2021) and Opfer and Pedder (2011) emphasise, leadership is pivotal for coordinating teacher learning and supporting transitions toward learner-centred approaches. Where leaders resisted, teachers relied more heavily on external professional support, particularly mentors and cluster networks, to sustain pedagogical change.

Conflicts were a recurring feature of leadership dynamics, often arising between mentors and managers, teachers and managers, and, in some cases, even between managers and village leaders. These disputes hindered collaborative planning and generated stress that spilt over into classroom practice, consistent with Kupila and Karila’s (2019) observation that team tensions hinder collaboration. In Kupang, some managers focused on bureaucratic and financial tasks, leaving mentors marginalised, weakening trust and coordination at both the micro and meso levels.

Such tensions reflected imbalances in leadership priorities. Ho (2011) defines effective preschool leadership as a blend of moral, managerial, and instructional elements; however, in several centres, emphasis skewed heavily toward administrative control. This distortion of leadership roles produced conflict over decision-making, workload distribution, and accountability, which occasionally escalated into village-level governance disputes. Consequently, mentoring relationships and inter-centre collaboration were disrupted, illustrating how leadership choices at the organisational level cascade downward to affect practice.

Leadership structures also emerged as a critical exo-time factor shaping the mentoring ecology. In several centres, teachers reported authoritarian leadership and abuses of power. Prior Indonesian studies highlight the persistence of top-down authority (Lessy et al., 2022; Sugandi et al., 2021), reinforced by limited management capacity and formalistic communication styles linked to cultural hierarchies (Jawas, 2017; Sukarno, 2010). Appointment practices influenced by political patronage, outdated regulations, and social status (Hariri et al., 2016; Sumintono et al., 2019) further entrenched hierarchical control, producing compliance rather than collaboration (Siswanto, 2003; Sofo et al., 2012). In such

climates, mentors were drawn into mediating conflicts and administrative tasks, while micro-level trust and meso-level collaboration stagnated.

Resource and access barriers

Geographical distance, poor road conditions, and unreliable internet connectivity further constrained consistent mentoring engagement. Mentors described long, physically demanding journeys to remote centres, with delays caused by terrain and transport challenges. Limited connectivity made remote follow-up, material sharing, or participation in online CPD unreliable. These infrastructural limitations restricted observation, feedback, and modelling, the core proximal processes of mentoring.

These findings align with evidence from other low-resource contexts. In Ghana, Schwartz et al. (2019) identified how poverty, low pay, transport barriers, and weak leadership jointly undermined teacher effectiveness. Similarly, Wang and Zhao (2011) highlighted chronic shortages in rural China, from insufficient funding to technological deficits. Unlike Clarke's (2018) findings in Australia, where virtual mentoring via social media extended professional learning, Kupang's digital divide rendered such solutions impractical. Teachers expressed frustration when training manuals or digital learning resources were delayed or unavailable, echoing Asuo-Baffour et al. (2019) and Madondo (2021), who found that resource scarcity and unclear objectives weaken motivation and diminish professional development outcomes.

The cumulative effect in Kupang was reduced micro-level engagement and diminished meso-level collaboration. When mentors were unable to travel or materials were lacking, cluster meetings and joint demonstrations faltered, eroding the relational momentum essential to effective mentoring.

Policy gaps

Weak policy frameworks also constrained mentoring's institutionalisation. While the Kupang programme successfully introduced the concept of 'mentoring' into policy discourse, embedding the 'mentor' as a recognised role within government structures proved more difficult. In Indonesian, comparable terms such as *penasehat* (advisor) or *guru pribadi* (private tutor) lack the collegial and educative dimensions of mentoring. The Ministry of Education's programme, *Guru Penggerak* (Transformational Teacher) initiative, shares similar goals, emphasising reflective pedagogy and coaching, but omits the explicit

mentoring framework (Desianti & Rahayuningsih, 2022; Satriawan et al., 2021). This conceptual misalignment weakened professional recognition and the legitimacy of mentoring funding.

Budgetary constraints further hindered expansion. A MoECRT official acknowledged that with 3.5 million teachers nationwide, state resources could not fund large-scale mentoring programmes. Investment priorities focused instead on training school principals (approximately 300,000 nationwide) in leadership and school management. The ECE sector, by contrast, received only 2.5% of the national education budget (MoECRT, 2021). As Adriany and Newberry (2022) argue, this reliance on donor funding and private cost-sharing reinforces neoliberal governance logics, folding mentoring into existing managerial duties rather than funding dedicated roles. These exosystem-level choices cascaded into micro- and meso-level realities, limiting the time, recognition, and resources available for mentoring practices.

Cultural dynamics (exo-culture)

Cultural expectations strongly influenced leadership and mentoring dynamics. In centres where managers had received mentoring-related preparation, leadership evolved from hierarchical authority toward participatory engagement. Managers became more approachable, encouraged reflective dialogue, and integrated pedagogical concerns into routine discussions. These shifts align with Morrison's (2019) conception of leadership as a constructivist, relational process and with Indonesian studies highlighting empathetic, distributive leadership that fosters trust and collaboration (Lessy et al., 2022).

In contrast, in other centres, authoritarian leadership styles persisted. Some teachers reported abuses of power, including decisions being monopolised by centre heads, restricted access to training, and disproportionate administrative burdens. These patterns reflect Indonesia's enduring top-down traditions (Lessy et al., 2022; Sugandi et al., 2021) and formalistic communication norms (Jawas, 2017; Sukarno, 2010). Appointment practices grounded in social hierarchy and political patronage further discouraged teachers and mentors from questioning authority (Hariri et al., 2016; Sumintono et al., 2019). As Siswanto (2003) and Sofo et al. (2012) observed, compliance often became a survival strategy. In such climates, mentors assumed conflict-mediation roles, diverting energy from pedagogical guidance, while micro-level trust and meso-level collaboration eroded.

Macrosystem dynamics: Cultural values and beliefs

Cultural values significantly influence various aspects of individual and collective life, including communication styles, social arrangements, and leadership practices (Nguyen, 2022). In my findings, several cultural values emerged as particularly influential: beliefs about disciplining children, dependency on foreign aid, the prevalence of power distance culture, the notion of power (in hierarchical relationships), and the personal values of individuals within the mentoring ecology, which include persons in development, mentors' and teachers' development. Orland-Barak (2014) has argued that mentoring is a product of its context, culture, and time, and my findings strongly support this perspective.

Macro-culture impact on different contexts

Cultural values and beliefs at the macrosystem level exert significant influence across other ecological layers. One example emerging from this study concerns the cultural normalisation of corporal punishment as a form of discipline. In Nusa Tenggara Province, the proverb '*di ujung rotan ada emas*,' literally translated as 'there is gold at the end of the rattan', reflects the cultural notion that strict discipline contributes to children's future success.

This interpretation from my findings resonates with Pangastuti's (2020) documentation of the same proverb within local communities. While Pangastuti did not explicitly conclude that corporal punishment is justified, her research illustrates how such cultural sayings continue to circulate and shape understandings of child-rearing practices. Similarly, participants in this study referred to disciplinary norms that reflect these broader cultural narratives.

Although such sayings are deeply embedded in local cultural narratives, their implications for early childhood education are concerning. When disciplinary authority is culturally legitimised at the macrosystem level, it may shape teachers' assumptions about appropriate classroom management within the microsystem. As Velez-Agosto et al. (2017) suggest, macro-level cultural ideologies are transmitted through everyday practices, influencing how adults interact with children. In this way, broader cultural scripts regarding authority and discipline may indirectly shape pedagogical approaches in ECE settings.

Another salient macrosystem component identified in my research is power-distance. Hofstede (2011) describes power-distance as the extent to which less powerful members of

organisations accept and expect unequal distributions of power. In Indonesia, this dimension is deeply rooted in the national culture. My findings support Suseno et al.'s (2020) argument that power-distance influences mentoring practices and creates challenges for fostering open and collaborative relationships. In centres with high power-distance, teachers often felt disempowered, which undermined motivation and reduced creativity in teaching. This illustrates how power distance can cascade across multiple layers of the ecology, shaping the exosystem (organisational culture), the mesosystem (relationships between teachers, mentors, and managers), and the microsystem (individual classroom practices).

My findings also highlighted Asian cultural values of respect for authority, deference to elders, and humility. Nguyen (2022) notes that such values shape the developing person at multiple levels, from personal beliefs to the microsystem, mesosystem, and exosystem. In Nguyen's study, the microsystem included family and mentorship, while the exosystem encompassed organisational diversity and professional development. Similarly, in my study, respect for authority and humility were evident in the personal values of teachers and mentors, often facilitating the initiation of mentoring relationships in the microsystem. However, these same values could also reinforce hierarchical dynamics, thereby limiting critical dialogue and reinforcing the asymmetrical nature of mentoring relationships.

Macro-culture impact on the exo-culture and meso-culture

Hofstede (2011) observed that in societies with large power-distance, older individuals, such as ECD managers or senior teachers, are both respected and feared. In such contexts, schools often adopt teacher-centred approaches, and subordinates, including teachers, expect to be directed by those in authority. My research findings illustrate how these macrosystem values shape the exosystem of early childhood institutions. In centres where high power-distance was dominant, teachers reported feeling disempowered, less motivated, and less engaged in their work. These conditions limited creativity in teaching and constrained innovation in curriculum development. Alternatively, in centres with lower power distance, teachers were more involved in decision-making processes, fostering collaboration and openness. This suggests that ECD managers need to strike a balance between exercising leadership and encouraging autonomy in teachers in order to build a healthy organisational culture that promotes professional growth and positive outcomes for children. Equally, addressing the

potential for power abuse is essential to sustaining a respectful and ethical environment for both staff and learners.

Meso-culture impact on the mentoring relationship

At the mesosystem level, the influence of macro-cultural values was evident in the hierarchical relationships between mentors and teachers. Although less dominant than in the exosystem, the notion of power still shaped interpersonal dynamics. This resonates with Mosley-Wetzel et al.'s (2017) argument that power remains inherent in mentoring relationships, as well as Bosman's (2015) assertion that such relationships are, by nature, asymmetrical. My data revealed that these hierarchical patterns sometimes hindered open dialogue between mentors and teachers, thereby limiting the potential for reciprocal learning.

Micro-culture: Personal values and beliefs

At the microsystem level, the personal values and beliefs of mentors and teachers significantly affected the initiation and progression of mentoring relationships. In several cases, differences in age and teaching experience created tension, slowing the development of effective mentoring dynamics. These intergenerational gaps mirror what Merriweather and Morgan (2013) describe as challenges in non-traditional, cross-generational mentoring relationships, where cultural and experiential differences can lead to misunderstandings and conflict. One participant explicitly noted that her previous mentor was not 'from here [Timor Island]' and was therefore perceived as culturally different by the school community. Such perceptions negatively influenced acceptance of the mentor, and in turn, impacted relationships within both the meso- and exosystem. These findings underscore the need for mentors to develop cultural competence, which involves acknowledging the biases embedded in mentoring models and resisting the tendency to interpret situations solely from their own cultural perspectives (Merriweather & Morgan, 2013).

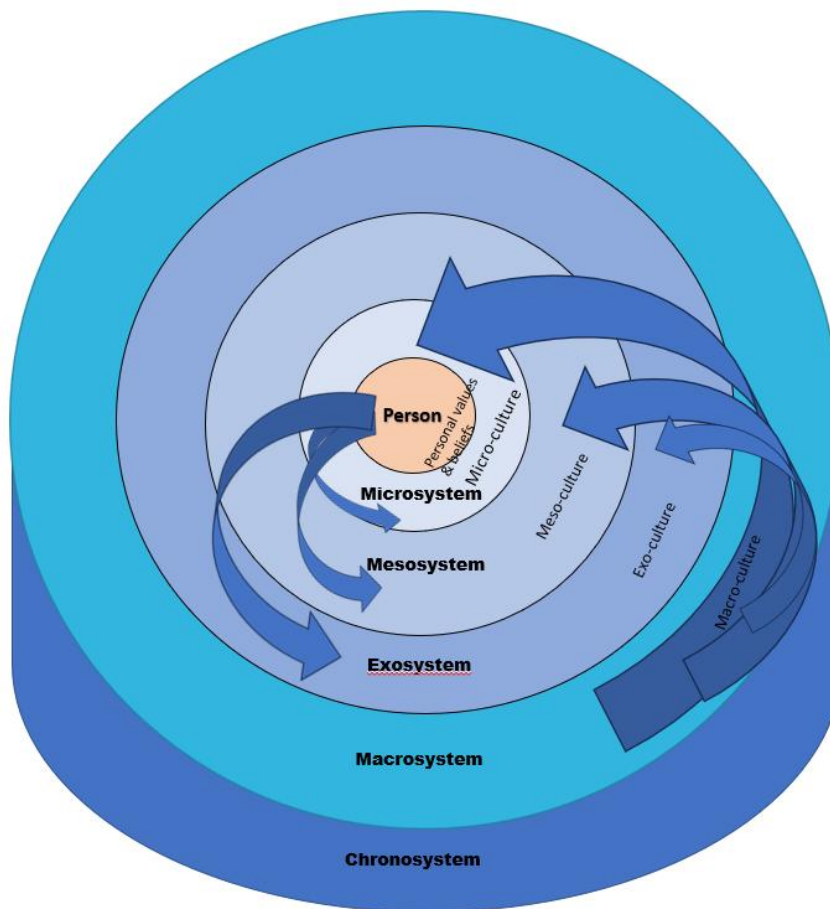
Mentoring in Kupang is shaped at the intersection of cultural values, beliefs, and policy frameworks. Norms surrounding authority and discipline orient practice toward respect for seniority and adherence to established procedures. At the same time, national regulations, such as the Presidential Decree on Holistic-Integrated Early Childhood Development (Perpres No. 60/2013) and the Act on Maternal and Child Welfare during the First 1,000 Days of Life (Law No. 4 of 2024), signal expectations regarding collaboration, caregiving quality, and cross-sectoral coordination.

Viewed through Bronfenbrenner's PPCT model, these macrosystem influences cascade through the exosystem, mesosystem, and microsystem, shaping the proximal processes of observation, feedback, and dialogue between mentors and teachers. In practice, this means that mentoring interactions are not neutral: they reflect broader cultural scripts about authority, gender, and professional roles. When hierarchical norms dominate, mentoring tends to emphasise compliance, directive feedback, and deference to senior mentors. On the other hand, when policy reforms and evolving social values promote participation and shared responsibility, mentoring interactions are more likely to encourage reciprocal dialogue, reflective practice, and the active involvement of both female and male educators. Over time (chronosystem), these shifting cultural and policy conditions either reproduce established authority-driven patterns or gradually support more inclusive and gender-transformative mentoring relationships. In this study, gender-transformative mentoring refers to practices that move beyond accommodating existing gender norms to critically challenging unequal power relations, particularly those that position women as compliant implementers and men as authority figures, and instead foster shared leadership, mutual respect, and equitable professional agency.

Macrosystem impact across cultural layers

Figure 15 illustrates how the macrosystem, defined by Bronfenbrenner (1979, 2005) as the overarching system of cultural values, ideologies, and belief systems, shapes development through nested cultural layers at the exo-, meso-, and micro-levels. In the Kupang mentoring programme, macro-cultural norms such as hierarchy, collectivism, and respect for authority were transmitted across these layers, influencing the quality and sustainability of mentoring relationships.

Figure 15
Macro-culture Influences in Different Contexts



To conclude, the figure demonstrates that the macrosystem was not a distant backdrop but an active force that shaped the Kupang mentoring ecology through cultural layers. Macro-cultural norms around hierarchy, deference, and cooperation filtered into organisational structures, relational exchanges, and daily practices, influencing whether mentoring relationships functioned as enablers or barriers. This layered analysis underscores that meaningful and sustainable change requires not only individual capacity-building but also cultural shifts at the exo-, meso-, and micro-levels.

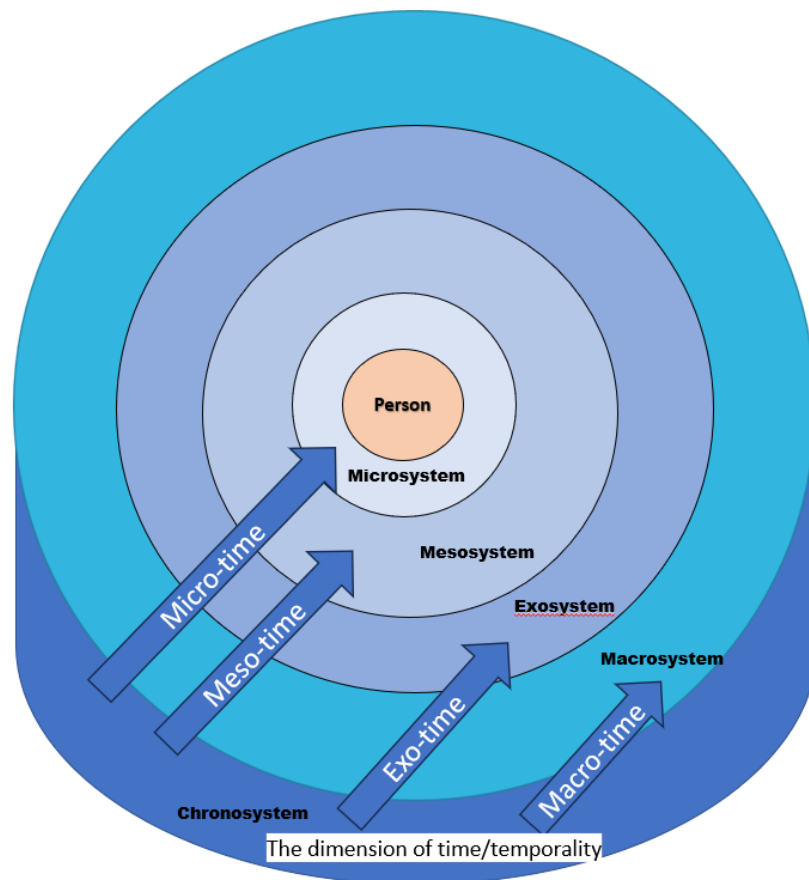
Yet ecological systems are not static. The mentoring programme also evolved over time, shaped by shifting policies, leadership transitions, funding cycles, and participants' developing competencies. The following section, therefore, examines the chronosystem dimension, exploring how temporal dynamics influenced the trajectory, sustainability, and transformation of the Kupang mentoring programme.

Time dimension (Chronosystem): Temporal dynamic across the programme

The chronosystem refers to the temporal dimension of Bronfenbrenner's (1999) bioecological model, which captures both changes and consistencies over time in relation to a person's characteristics and their environment. Bronfenbrenner (2005) later elaborated the chronosystem into three interrelated temporal substructures, micro-time, meso-time, and macro-time, each highlighting the dynamic interplay of time across different levels of the ecological system. My research adopted this framework to trace changes across the years of the ECE teacher mentoring programme in Kupang, examining what built momentum, what disrupted it, and what sustained practices once formal support ended.

Figure 16 illustrates the impacts of the chronosystem across different contexts. At the centre of the model is the *person* within the microsystem, while the mesosystem, exosystem, and macrosystem form concentric layers surrounding them. The dimension of time (temporality) cuts across all these layers, with arrows indicating how change is experienced at different temporal scales: micro-time (continuity or change in ongoing proximal processes), meso-time (stability or instability of patterns across weeks or months), exo-time (longer-term institutional or community changes that indirectly affect the person), and macro-time (societal or historical shifts across generations). This visual framing reinforces the idea that time is not external to ecological contexts but embedded within them, shaping developmental processes and outcomes.

Figure 16
Chronosystem Impacts in Different Contexts



Micro-time impacts

At the micro-time level, my study found that the frequency and quality of mentors' immediate interactions with teachers had direct consequences for the mentoring relationship. Weekly and consistent school visits were perceived positively, signalling commitment and accountability, while missed or irregular visits were often interpreted as a lack of seriousness. Teachers also reacted strongly to mentors' behaviours during single encounters, in which attentiveness, responsiveness, and warmth, which shaped their trust and willingness to engage. In this sense, micro-time processes highlighted how moment-to-moment interactions can trigger either constructive or negative cycles in the mentoring ecology.

These findings align with Bronfenbrenner and Morris's (2006) emphasis on proximal processes as the 'engines of development,' which must occur consistently in everyday contexts to be effective. Even small fluctuations in the quality of these short-term interactions can significantly affect outcomes (Tudge et al., 2009). In the mentoring literature, Hudson

(2016) and Hobson et al. (2009) similarly underline that consistent, high-quality contact is critical for teachers' professional learning, whereas inconsistent mentoring erodes confidence and diminishes perceived support. Thus, micro-time captures the immediacy of mentoring dynamics, where seemingly minor variations in presence and behaviour can initiate or buffer developmental outcomes.

Meso-time impacts

By contrast, meso-time refers to the patterns of interaction sustained across weeks or months. My study revealed that the continuity or disruption of mentoring relationships over time, for example, due to mentor turnover, had significant consequences. In some sub-districts, replacing an underperforming mentor with one who possessed stronger relational and pedagogical skills enhanced trust and learning over the course of several months. In other cases, the departure of skilled mentors and their substitution by less capable individuals eroded relationships, stalled progress, and created frustration. These findings highlight that meso-time is not about single interactions but about the stability or instability of mentoring trajectories over extended periods.

Prior studies reinforce this interpretation. Rhodes and Lowe (2009) emphasise that the effectiveness of mentoring depends on the duration and continuity of the relationship, with longer-term stability facilitating deeper trust and learning. In teacher education, Smith and Ingersoll (2004) found that sustained mentoring, which spans a school year, significantly improves teacher retention and instructional quality, whereas fragmented or short-lived mentoring produces limited effects. Moreover, Grossman and Rhodes (2002) demonstrated in the context of youth mentoring that premature termination of relationships can harm mentees' confidence, underscoring the risks associated with discontinuity. In combination, this body of evidence supports my finding that meso-time dynamics, the cumulative stability of relationships, play a decisive role in shaping mentoring outcomes.

Exo-time impacts

At the exo-time level, organisational and institutional responses became decisive in shaping the sustainability of the mentoring programme. When donor support ended in March 2020, the Kupang district government stepped in to continue funding the ECE teacher mentoring activities from April 2020 to December 2025. This reflected local ownership, a critical

ingredient for long-term sustainability (Birchler & Michaelowa, 2016; Yates et al., 2019). Yet trade-offs were evident: stipends dropped from NZ\$210 to NZ\$130 per month, while the number of mentors grew from 24 to 30. Expanded coverage stretched budgets thin, raising concerns about quality dilution, an institutional recalibration consistent with exo-time trade-offs.

Donor and government priorities also shifted around 2020, with early childhood losing visibility as climate change and stunting reduction gained prominence. This led to shortened training calendars, fewer CPD opportunities, and weaker preparation for new mentors. Such patterns reflect research showing that donor priorities are fluid and agenda-driven (Riddell, 2014; Yates et al., 2019), and that over-reliance on aid can induce fragility when support wanes (Fashina et al., 2018). These findings highlight the vulnerability of ECE teacher mentoring systems when programme continuity is tethered to external agendas.

The COVID-19 pandemic further disrupted exo-time conditions, compounding programme instability. While the pandemic itself constituted a chronosystem shock, its effects were mediated through time-sensitive changes in exosystem structures. Centre closures, mobility restrictions, and widening digital divides curtailed weekly mentoring visits, cluster meetings, and CPD forums. Feedback cycles shifted to ad hoc phone calls or text messaging, while apprenticeship-style peer learning among mentors was largely suspended. These adaptations mirror global patterns, where mentoring programmes turned to phone, text, or online modalities to sustain contact (Speer et al., 2021). However, without prior digital planning or infrastructural readiness, the depth and quality of mentoring interactions were uneven.

Indonesian system-level analyses similarly identified urgent needs for strengthened digital infrastructure, teacher professional support, and adaptive leadership during the COVID-19 pandemic. Longitudinal evidence from the INOVASI learning recovery study (Sukkoco et al., 2023) documented substantial learning loss one year after school closures (0.47 standard deviations in literacy and 0.44 in numeracy), reflecting disruptions in instructional continuity and uneven access to remote learning. Two years after school reopening, partial recovery was observed; however, improvements were uneven and strongly associated with adaptive curriculum practices, active instructional leadership, and targeted government support. Schools led by principals who engaged in systematic monitoring and instructional guidance demonstrated significantly stronger recovery trajectories, while institutions receiving material

and policy support from the government showed measurable gains in student outcomes (Sukoco et al., 2023).

In Kupang, similar patterns were evident. Centres with stronger leadership coordination and better connectivity resumed mentoring activities more effectively, suggesting that shifts in exosystem resource allocation, governance responsiveness, and institutional coordination over time conditioned the resilience of micro- and meso-level mentoring processes. Exo-time, therefore, was not merely characterised by disruption, but by evolving institutional responses whose timing, coherence, and implementation shaped the continuity and quality of professional mentoring relationships

Macro-time impacts

The findings of this study revealed the significance of macro-time in shaping the mentoring programme's trajectory. Between 2017 and 2020, national government assistance and foreign aid, particularly from MFAT and UNICEF, provided critical financial and technical resources that enabled programme expansion, coordination, and institutional embedding (UNICEF, 2015). The withdrawal of this funding in March 2020 marked a turning point, creating uncertainty and slowing programme momentum. This reflects Bronfenbrenner and Morris's (2006) argument that macro-time captures sociohistorical transitions whose ripple effects extend across multiple ecological systems. Development aid volatility has similarly been shown to influence programme continuity and institutional stability in low-resource contexts (Michaelowa & Weber, 2006; Riddell, 2014). Yet evidence from Kupang suggested an important counterpoint: mentoring practices persisted even after donor funding ended. Once embedded in local routines and relational norms, mentoring activities continued, indicating that practices institutionalised at the micro- and meso-level can endure despite shifts at the macrosystem level.

A second defining macro-time factor was the COVID-19 pandemic, which functioned as a global historical rupture. Overnight, in-person mentoring and classroom observations were replaced by remote modalities such as phone calls, text messages, and online meetings where connectivity permitted. This adaptation mirrored international evidence showing that mentoring relationships shifted rapidly to virtual platforms during the pandemic, with videoconferencing and phone-based communication emerging as primary substitutes for face-to-face engagement (Barnes-Proby et al., 2024; Erdoğan et al., 2022; Tatminingsih, 2023).

While digital contact enabled continuity, the quality and depth of reflective dialogue were uneven. As Kaufman et al. (2022) argue, virtual mentoring can be effective, but it requires planning, digital infrastructure, and sustained organisational support, conditions that were inconsistently available in Kupang.

The pandemic thus introduced a profound chronosystem shock that disrupted exo-, meso-, and microsystem structures underpinning the mentoring bioecology. Centre closures, mobility restrictions, and shifting policy directives destabilised established supervision cycles and peer cluster meetings. Weekly visits were suspended, observation-feedback loops became sporadic, and reflective exchanges fragmented into intermittent messages. Limited digital infrastructure further constrained remote mentoring alternatives. National evidence from Indonesia (Sukoco et al., 2023; UNICEF & UNESCO, 2021) and global monitoring reports (OECD, 2023; UNICEF, 2021; UNICEF & UNESCO, 2021) documented widespread disruption to instructional continuity, digital access disparities, and uneven institutional readiness during the pandemic. These temporally driven macro-level disruptions cascaded downward, reducing relational continuity, professional recognition, and the structural stability necessary for sustained mentoring practice.

Within a bioecological lens, teacher support during the pandemic functioned as a stabilising exosystem resource that buffered microsystem disruptions. Policy guidance from the World Bank explicitly framed teacher resilience, instructional strengthening, and technological enablement as core pillars of crisis response (Bodrogini; World Bank, 2020b), underscoring that without systemic support, relational teaching processes cannot be sustained under chronosystem shocks.

In sum, these macro-time disruptions illustrate how historical ruptures simultaneously destabilise and reshape developmental programmes. Although funding withdrawal and the pandemic challenged sustainability, the Kupang case demonstrates resilience: mentoring practices adapted and persisted. Sustainability therefore emerges not as stability in periods of calm, but as the ecological capacity of programmes to endure and evolve through disruptive sociohistorical transitions.

Summary

To summarise this chapter, the PPCT model analyses demonstrate that the ECE teacher mentoring programme in Kupang was neither a simple programme intervention nor a linear reform process, but a dynamic system shaped by interacting personal, relational, organisational, cultural, and historical forces. The chronosystem perspective highlights that sustainability depended not only on structural design but on the capacity of actors and institutions to adapt across time. The following chapter synthesises these findings, drawing out the theoretical, practical, and policy implications of mentoring as an evolving bioecological process.

CHAPTER VIII: CONCLUSION and IMPLICATIONS

Introduction

This study set out to explore the dynamics of mentoring relationships within the Early Childhood Education (ECE) teacher mentoring programme in Kupang District, Indonesia. The research was motivated by a broader concern for understanding how professional learning for early childhood teachers unfolds in complex socio-cultural, institutional, and policy environments. Early childhood educators in Indonesia, especially those in nonformal and rural contexts, often face multiple challenges, including limited professional recognition, uneven access to training, and diverse community expectations. Within this context, mentoring was introduced not simply as a technical intervention to improve classroom practice, but as a relational process that enables teachers and mentors to co-construct professional knowledge and identity through interaction, reflection, and shared learning.

The mentoring programme examined in this research was part of a larger effort to strengthen the capacity of early childhood educators under the Holistic-Integrative Early Childhood Development (HI-ECD) approach. Kupang District, located in East Nusa Tenggara (NTT) Province, provided a distinctive context for this study. As one of Indonesia's eastern regions with wide geographical disparities, limited resources, and strong community-based traditions, it presented both opportunities and constraints for mentoring implementation. Over several years, the Kupang ECD mentoring programme brought together teachers, mentors, government officers, and development partners to establish a sustainable model of professional learning that could bridge the gap between national policy and local realities.

This research was therefore driven by the need to document, interpret, and theorise the lived experiences of those involved in the programme, particularly mentors and teachers, as they engaged in professional learning and relational practice. The investigation sought to move beyond evaluative descriptions of programme outcomes, focusing instead on the processes and contextual interactions that shape mentoring as a form of professional development. By adopting Bronfenbrenner's Bioecological Theory of Human Development, specifically the Process–Person–Context–Time (PPCT) model, as a theoretical lens, the study examined how

mentoring relationships are formed, sustained, and transformed across ecological systems and over time.

Structure of the chapter

This final chapter brings together the key threads of the thesis. It begins by synthesising the principal findings, organised according to the PPCT dimensions, to illustrate how mentoring relationships operate across multiple layers of the ecological system. It then articulates the study's theoretical contributions to mentoring and early childhood education scholarship. Subsequent sections present implications for policy and practice, limitations of the study, and directions for future research. The chapter concludes with a reflective discussion on mentoring as an evolving ecological relationship that bridges personal growth, professional learning, and systemic change.

Synthesis of key findings

The findings of this study illuminate the complex, multi-layered nature of mentoring as experienced by early childhood teachers and mentors within the Kupang ECD mentoring programme. When interpreted through the Process–Person–Context–Time (PPCT) framework of Bronfenbrenner's Bioecological Model, mentoring emerges not as a linear or prescriptive intervention, but as a dynamic, evolving process shaped by the interplay of personal characteristics, interpersonal relationships, institutional arrangements, and temporal shifts. This section synthesises the study's key findings across the four dimensions of the PPCT model, Person, Process, Context, and Time, to demonstrate how mentoring functions as a relational ecology of professional learning in a low-resource and culturally embedded environment.

Person: Characteristics, dispositions, and the human dimension of mentoring

At the core of the mentoring process are the individuals whose characteristics, both personal and professional, define how relationships are initiated, maintained, and experienced. The study found that mentors' relational qualities were the primary catalyst in forming trusting and effective mentoring relationships. Characteristics such as approachability, warmth, accountability, and empathy fostered a sense of safety, allowing teachers to engage in open

reflection and experimentation. Mentors who balanced professional authority with personal humility were perceived as credible yet accessible, what several teachers described as “professional friends.” This echoes Bronfenbrenner’s (2005) concept of *demand characteristics*, personal attributes that elicit particular responses from others, here functioning to initiate proximal processes of learning.

Equally significant were the mentors’ and teachers’ force characteristics, dispositional traits such as persistence, confidence, and emotional resilience, that sustained mentoring interactions despite systemic constraints. For example, mentors who demonstrated consistent commitment were able to maintain teachers’ engagement even when logistical or financial support waned. Teachers with higher intrinsic motivation and a strong sense of vocation were more likely to seek feedback and integrate new practices, suggesting that person characteristics directly mediated the depth and continuity of learning interactions.

The findings also highlighted the reciprocal nature of influence between mentors and teachers. Mentoring was not unidirectional; mentors reported developing new insights and pedagogical strategies through reflective dialogue with teachers. This reciprocity reflects Bronfenbrenner’s (2005) emphasis on the *bidirectionality* of proximal processes, where both individuals are active agents in mutual development. Importantly, the study revealed that emotional bonds, such as friendship and empathy, were not peripheral to professional learning but rather central to sustaining it. In Kupang’s collectivist culture, where personal relationships underpin professional interactions, affective trust functioned as a mechanism of accountability and continuity.

However, person-related differences also presented challenges. Variations in mentors’ educational backgrounds, levels of training, and familiarity with child-centred pedagogy sometimes created mismatches in expectations. Teachers tended to idealise mentors as ‘experts,’ while mentors often struggled to position themselves as facilitators rather than supervisors. These asymmetries underscored the need for continuous professional support for mentors themselves, reinforcing the finding that *mentors also require mentoring* within a nested system of professional learning.

Process: Proximal processes of mentoring and professional learning

The findings affirm Bronfenbrenner's (2005) proposition that professional development occurs through *enduring forms of reciprocal interaction* between individuals and their environments. In the Kupang programme, these proximal processes manifested through recurring mentoring practices such as classroom observation, co-planning, reflective dialogue, peer sharing, and feedback sessions. Among these, reflective dialogue emerged as the most powerful mechanism for professional growth. Teachers valued mentors who engaged them in questioning and reasoning, rather than prescribing solutions, allowing them to reinterpret their classroom experiences through a new pedagogical lens.

Classroom observation and practice modelling served as tangible sites for professional learning. Teachers described how observing mentors demonstrate child-centred activities provided concrete examples of how abstract training concepts could be implemented with limited materials. Yet, observation alone was insufficient without post-observation reflection; the richest learning occurred when mentors facilitated discussions that connected observed behaviours to broader principles of child development and responsive pedagogy.

The study also found that peer mentoring and collective learning were central to sustaining the mentoring culture. Regular teacher group meetings functioned as informal communities of practice where participants exchanged teaching ideas and emotional support. These interactions illustrate how proximal processes extend beyond dyadic mentor–teacher relations into collective, community-based professional learning spaces. Such group mentoring dynamics align with the mesosystem level of Bronfenbrenner's model, where interactions among settings (e.g., between classrooms, teachers, and mentors) create networks that reinforce or hinder development.

However, these processes were highly sensitive to contextual stability. When institutional or logistical support weakened, the intensity and frequency of mentoring interactions declined. This finding reinforces Tudge et al.'s (2016) argument that proximal processes require both regularity and reciprocity to remain effective. In the Kupang context, disruptions such as delayed funding, staff turnover, and limited communication infrastructure constrained the continuity of mentoring. Nonetheless, participants' adaptive strategies, such as maintaining contact through mobile messages or peer visits, demonstrated a form of *contextual resilience*,

suggesting that relational commitment can sustain developmental processes even when formal systems falter.

Context: Institutional, socio-cultural, and policy ecologies

Mentoring in Kupang unfolded within a complex ecology of interacting systems, each exerting distinct yet interconnected influences on professional learning. At the microsystem level, daily interactions between teachers and mentors were the most immediate environment where learning occurred. These were shaped by local norms of politeness, hierarchy, and communal relationships. Teachers' respect for mentors often mirrored cultural expectations of deference to elders or perceived authorities, which sometimes limited critical dialogue. Yet, as trust deepened, this hierarchy softened, allowing for more reciprocal exchanges, a transformation from compliance to collaboration that reflects contextual adaptation of mentoring principles.

At the mesosystem level, relationships among institutions, between early childhood centres, village governments, and the district education office mediated access to resources, supervision, and support. In centres where head teachers and local officials actively endorsed the mentoring programme, participation and enthusiasm were higher. Conversely, limited engagement from district supervisors reduced programme visibility and sustainability. The mesosystem thus functioned as a bridge between local practice and external policy, shaping the flow of communication and legitimacy.

At the exosystem level, policy decisions, funding flows, and organisational support from development partners significantly influenced mentoring continuity. The study revealed that donor involvement (e.g., UNICEF, MFAT, and partner NGOs) was instrumental in initiating structured mentoring, providing training modules, and facilitating monitoring. Yet, this dependence on external support also created vulnerability: when donor projects ended, institutional follow-up often weakened. Participants expressed concern that while capacity had improved, systematic integration into district education plans remained limited. This underscores how external actors can both enable and constrain sustainability, depending on how effectively local ownership is fostered.

At the macrosystem level, national policies on early childhood education, particularly the integration of PAUD within the Holistic-Integrative ECD framework, provided the

ideological backdrop for mentoring. However, gaps persisted between policy ideals and implementation realities. Teachers and mentors often negotiated multiple expectations: implementing child-centred pedagogy while adhering to administrative demands for documentation and reporting. Cultural values around nurturing, faith, and collective responsibility shaped participants' understanding of their professional roles, illustrating how mentoring in Kupang was as much a moral practice as a technical one.

Time: Continuity, disruption, and adaptation

The chronosystem dimension revealed how historical and temporal shifts profoundly affected mentoring relationships and programme evolution. Two macro-time disruptions were particularly influential: the withdrawal of donor support and the COVID-19 pandemic. The withdrawal of external funding represented both a rupture and a test of sustainability. In the absence of structured support, mentoring relationships rooted in genuine interpersonal commitment continued informally, while those dependent on institutional incentives gradually faded. This demonstrated that sustainability in mentoring is not defined solely by organisational continuity, but by the capacity of relationships to adapt and persist amid changing conditions.

The pandemic further highlighted mentoring's adaptability. When in-person interactions were restricted, mentors and teachers shifted to remote communication via phone calls, messaging apps, and occasional video meetings. These virtual interactions preserved relational continuity but varied in quality, reflecting uneven access to technology and digital literacy. Teachers in remote areas reported feelings of isolation, yet also described increased autonomy as they improvised with local resources. The pandemic thus acted as a chronosystem event that reconfigured mentoring dynamics, prompting both challenges and innovations in professional learning.

Beyond these external disruptions, the study traced micro-time patterns within individual mentoring relationships, showing how interactions evolved from formal supervision to collegial partnership over months and years. Teachers described an initial period of dependency, gradually replaced by confidence and shared decision-making. Mentors, likewise, evolved from directing to facilitating, embodying the developmental reciprocity that Bronfenbrenner (2005) envisaged as the hallmark of mature proximal processes. Over time,

mentoring relationships also contributed to broader systemic learning: mentors became advocates for policy change, and teachers assumed roles as peer facilitators, extending the mentoring ethos beyond the initial programme boundaries.

Synthesis across PPCT dimensions

Overall, the findings demonstrate that mentoring in the Kupang ECD programme operates as an ecological system of learning, where person characteristics, relational processes, contextual systems, and temporal changes continuously interact. Mentoring effectiveness cannot be attributed to any single component but emerges from their interdependence. The PPCT framework illuminates how professional development unfolds as a situated, evolving process: driven by personal commitment, sustained by relational reciprocity, conditioned by institutional and cultural ecologies, and transformed by time.

These insights reaffirm that mentoring in early childhood education is not a uniform model to be replicated, but a living system to be understood, nurtured, and adapted to local realities. In Kupang, the ecology of mentoring reflects the wider ecology of early childhood education itself: deeply relational, contextually embedded, and perpetually in motion.

Theoretical contributions

Repositioning mentoring as a bioecological process

This study contributes conceptually by demonstrating that mentoring can be understood as a bioecological process, a dynamic interaction among personal characteristics, proximal processes, contextual systems, and temporal change. While mentoring has frequently been portrayed in teacher-education literature as a bounded professional-development strategy (Clarke, 2018; Kochan & Pascarelli, 2003; Kupila & Karila, 2019), this thesis positions it as an *ecological system of learning* that evolves through reciprocal relations among teachers, mentors, institutions, and policy environments. By situating mentoring within Bronfenbrenner's mature Bioecological Model conceptualised by Bronfenbrenner and Morris (2006), the research extends the theory's application beyond child development into the professional domain of adult educators, showing that professional growth likewise depends on sustained, context-embedded interactions.

Through empirical evidence from Kupang District, the study illustrates that proximal processes of mentoring, dialogue, feedback, co-planning, and emotional support mirror the developmental processes central to human learning more broadly. These interactions are mediated by mentors' and teachers' *force characteristics* (motivation, perseverance) and *demand characteristics* (approachability, empathy), while being continuously shaped by contextual enablers such as institutional commitment, cultural expectations, and policy support. The findings, therefore, reaffirm Bronfenbrenner's argument that the effectiveness of any developmental process depends not only on its immediate structure but on its alignment with wider ecological systems.

Advancing the precision of PPCT application

Scholars such as Tudge et al. (2016) and Rosa and Tudge (2013) have cautioned that many studies invoking the bioecological model do so superficially, neglecting its interdependent components. This research responds directly to that concern by operationalising each PPCT element in relation to mentoring. *Process* was examined through observable mentoring practices; *Person* through mentors' and teachers' dispositions; *Context* through institutional, socio-cultural, and policy layers; and *Time* through longitudinal changes during and after donor involvement. By explicitly connecting these dimensions, the study provides an empirically grounded illustration of how PPCT can be applied rigorously within qualitative inquiry.

In doing so, the research expands the methodological repertoire for PPCT-based studies. Rather than treating the model as a variable framework for measurement, it employs it interpretively to trace how meanings, relationships, and structures co-evolve. This interpretive use demonstrates the compatibility of Bronfenbrenner's later theoretical phase with constructivist paradigms, thereby bridging ecological systems theory with sociocultural understandings of professional learning.

Extending mentoring theory in Global South contexts

Most mentoring theories have emerged from high-income settings where teachers work within relatively stable institutional infrastructures. By contrast, the Kupang context exposes mentoring as a *resource-constrained yet relationship-rich* endeavour. The study reveals how mentoring adapts within fragile systems, where continuity depends on human commitment

more than institutional provision, and how cultural norms of collectivity and moral responsibility shape the mentoring ethos. These insights contribute to de-centring Euro-American perspectives in mentoring literature and advance Billett's (2014) conception of learning as situated within a broader ecology of professional practice.

Furthermore, the research introduces the concept of contextual resilience in mentoring: the capacity of mentoring relationships to persist and transform despite systemic instability. This concept adds nuance to existing frameworks that often equate sustainability with policy integration or funding continuity. In the Kupang case, sustainability was re-defined as the relational endurance and adaptability of mentoring networks, a theoretical reframing that aligns with ecological notions of adaptive systems (Ungar, 2018).

Integrating professional-learning and developmental-systems perspectives

By fusing insights from professional learning theory with developmental systems thinking, the study bridges two bodies of scholarship that have rarely intersected. Professional learning research emphasises reflective practice, communities of inquiry, and situated cognition (Boud, 2013; Lave & Wenger, 1991), while bioecological theory foregrounds the nested and temporal nature of developmental processes. This thesis unites these strands by conceptualising mentoring as *a proximal process of professional learning situated within multi-layered ecologies over time*. It thereby extends both literatures: adding a temporal-ecological dimension to professional-learning discourse and expanding the developmental-systems framework to encompass adult professional contexts.

Reconceptualising sustainability in mentoring

A further theoretical contribution lies in redefining sustainability not as programmatic endurance but as ecological adaptability. Traditional education-development models often assess sustainability through funding continuity or institutionalisation. The findings from Kupang suggest that sustainability in mentoring is better conceptualised as ecological responsiveness, the capacity of mentoring systems to reorganise and adapt through disruption. This interpretation resonates with OECD's (2020a) framing of resilient education systems as those that 'bounce forward' rather than simply restore pre-crisis arrangements. It further aligns with the OECD's (2021a) argument that education systems operate as dynamic

policy ecosystems that must balance urgent crisis response with longer-term transformation. Sustainability, therefore, is not stasis but adaptive continuity across sociohistorical shifts.

Contributing to the interpretation of culture within Bioecological research

Finally, the study advances how culture is interpreted within bioecological research. Rather than treating the macrosystem as a distant backdrop, it shows how cultural scripts of deference, empathy, and spiritual commitment actively permeate micro-level interactions. In Kupang, the cultural value of *gotong royong* (collective mutual help) was not merely contextual but performative; it shaped mentoring as a moral relationship of care. By empirically linking cultural values to proximal processes, the research provides one of the few PPCT-based studies to demonstrate culture's processual function in professional learning. This contributes to the ongoing refinement of the bioecological model, aligning with calls by Tudge et al. (2009) and Billen and Billen (2022) to integrate culture as a dynamic, lived system rather than a static contextual layer.

Implications for policy and practice in Indonesia

Strengthening policy coherence and systemic alignment

The findings highlight the need for stronger coherence between national policies and district-level implementation in Indonesia's early childhood education system. The Kupang mentoring programme revealed that policy intentions for Holistic-Integrative Early Childhood Development (PAUD HI) were often diluted during local translation due to fragmented mandates across ministries and agencies. The Ministry of Education, Culture, Research, and Technology (MoECRT) oversees pedagogical quality, whereas the Ministry of Home Affairs and the Kemenduk Bangsa/BKKBN (National Population and Family Planning Agency) maintain jurisdiction over community-based centres and parenting programmes. This multi-ministerial arrangement, while inclusive in design, has created overlapping responsibilities and accountability gaps (World Bank, 2020a).

To address this, mentoring could be formally positioned as a cross-sectoral professional-learning mechanism within the Holistic Integrative ECD framework. Rather than treating mentoring as a temporary donor initiative, MoECRT and BKKBN could institutionalise it through a national mentoring policy supported by district coordination teams. Such

integration would ensure that mentoring is embedded in existing teacher-competency standards, supervision systems, and data platforms such as *DAPODIK* or the main source of national education data. Embedding mentoring in national standards would also align Indonesia with international recommendations emphasising workforce professionalisation as a system-wide priority (Gomez et al., 2019; OECD, 2021a).

Professionalising the ECE workforce

Mentoring in Kupang demonstrated that relational support enhances teachers' confidence, reflective capacity, and pedagogical innovation, even in resource-limited settings. However, teachers' professional identity remains precarious, particularly among non-formal educators who lack legal recognition under the 2005 Teacher and Lecturer Law. Findings from this study revealed ongoing ambiguity in status and recognition, particularly among non-formal educators who rely on village-level funding, receive irregular incentives, and lack clear pathways for career progression. This study, therefore, calls for a tiered professional recognition system that acknowledges diverse educational pathways while ensuring access to structured career progression.

Policy should expand opportunities for non-formal educators to pursue Recognition of Prior Learning (RPL) and Competency-based Certification, enabling them to qualify for mentoring and professional-development schemes on equal terms with formal teachers. Additionally, district governments could create mentor-teacher positions within their staffing structure, formally recognising experienced educators as local professional-learning leaders. International experience suggests that when mentoring roles are institutionalised, teacher motivation and retention improve (Ingersoll & Strong, 2011; OECD, 2020b). This aligns with Indonesia's long-term goal of producing a competent, equitable, and well-supported ECE workforce under the *Indonesia Emas 2045* vision.

Building local capacity for mentor preparation

The Kupang programme demonstrated that mentor quality determines mentoring effectiveness. Yet mentor training was often ad hoc, dependent on short workshops facilitated by external consultants. For sustainability, a structured mentor-preparation framework should be developed and accredited nationally. Such a framework could include staged

competencies, ranging from relational and facilitation skills to adult-learning theory, formative feedback, and reflective practice.

Teacher-training institutions and provincial quality assurance bodies could collaborate with the Ministry of Education and district offices to integrate mentoring modules into pre-service and in-service curricula. Embedding mentoring competencies within higher-education programmes would cultivate a pipeline of qualified mentors rather than relying on donor-funded appointments. This recommendation aligns with Gómez et al. (2016), who argue that professionalisation requires systemic investment in leadership and mentoring, rather than merely in teacher training.

Promoting context-responsive and culturally grounded mentoring

Kupang's experience underscores that mentoring models must be sensitive to local cultural logics of care, hierarchy, and collectivity. The concept of *gotong royong*, collective mutual support, proved central to sustaining mentoring networks after donor exit. Consequently, national guidelines should allow for flexible, context-responsive mentoring formats that adapt to regional languages, traditions, and community structures.

Rather than a single top-down model, MoECRT could endorse a set of principles emphasising reciprocity, reflection, and inclusivity, while allowing local governments to contextualise their implementation. Recognising local cultural capital aligns with UNESCO's (2022) call for education systems that integrate indigenous knowledge and community practices while maintaining equitable quality standards. Culturally attuned mentoring enhances contextual relevance and strengthens community ownership, an essential condition for programme sustainability in rural and remote areas.

Integrating mentoring into quality-assurance mechanisms

The study found that district monitoring often focused on compliance indicators, attendance, documentation, and administrative reports, rather than on teachers' professional learning. Integrating mentoring within quality-assurance and supervision systems could rebalance this focus towards developmental support. District ECE supervisors and mentors could form collaborative supervision teams, replacing punitive inspection with coaching-based evaluation.

To operationalise this shift, performance-appraisal instruments should include mentoring participation as evidence of professional growth. Linking mentoring engagement to teacher promotion or incentive schemes could motivate participation without coercion. Moreover, the national internal quality assurance system and external quality assurance system could incorporate mentoring indicators within its continuous-improvement cycle, ensuring that reflective practice becomes part of institutional culture rather than an external add-on.

Financing and sustainability mechanisms

Financial sustainability remains the most significant constraint for long-term mentoring. Following donor withdrawal, many districts lacked budgets to retain mentors or fund travel to remote centres. The findings suggest several potential mechanisms:

1. Integrating mentoring costs into regular district education budgets under the *Dana Alokasi Khusus (DAK)* for ECE quality improvement.
2. Leveraging village funds (*Dana Desa*) to support local mentoring clusters, given that early-childhood education falls within the village-development mandate.
3. Encouraging blended financing models through public–private partnerships with local foundations, faith-based organisations, or corporate social responsibility (CSR) schemes.

These options would distribute financial responsibility across governance levels, reducing dependence on international aid. Sustainability, as evidenced in Kupang, depends less on the scale of funding than on predictability and local control. Districts that earmarked modest but consistent budgets maintained mentoring activities beyond project periods, illustrating that fiscal continuity at micro-levels can underpin programme resilience.

Implications for development partners: Broader regional and global relevance

For international donors and NGOs, the Kupang experience offers lessons on exit strategies and capacity transfer. Donor-driven projects should design mentoring components from inception with explicit localisation plans, gradually shifting technical and financial responsibilities to district governments and local institutions. Flexible funding arrangements

that allow adaptive planning, rather than rigid log-frames, better accommodate contextual change. Moreover, global agencies such as UNICEF, ARNEC, and the World Bank could support knowledge-exchange platforms enabling Indonesian districts to share mentoring practices, thus embedding learning within regional networks rather than isolated projects.

Although situated in Indonesia, the study's insights have wider implications for Global South ECE systems where resource scarcity and decentralisation shape professional-learning ecosystems. The Kupang model demonstrates how mentoring can serve as an entry point for building professional culture in early-childhood systems undergoing reform. It shows that relational forms of professional learning, grounded in empathy, reflection, and peer support, can complement formal credential structures. These findings contribute to global policy dialogues that position workforce professionalisation as central to equitable early learning systems (Carney, 2022; OECD, 2021b).

In summary, policy and practice should:

- Institutionalise mentoring within PAUD HI as a cross-sectoral strategy for professional learning;
- Establish clear career-progression and certification pathways for all ECE teachers, including non-formal educators;
- Develop accredited mentor-preparation frameworks integrated with teacher-education institutions;
- Promote culturally responsive mentoring grounded in local values of *gotong royong*;
- Embed mentoring indicators within quality-assurance and supervision systems;
- Ensure predictable, multi-level financing for mentoring activities; and
- Encourage donor partnerships that prioritise capacity transfer and long-term localisation.

These directions reaffirm that mentoring is not merely a technical tool but a strategic lever for systemic transformation, linking workforce development, quality assurance, and cultural integrity within Indonesia's broader human-capital agenda.

Limitations of the study

Recognising the limitations of this research is essential for situating its findings within their appropriate scope and context. As with all qualitative inquiries, this study was guided by principles of depth, meaning, and interpretation rather than breadth or statistical generalisation (Lincoln, 1985; Tisdell et al., 2025). The following limitations- contextual, sampling, and temporal- outline both the boundaries of the research and the opportunities they create for further investigation.

Contextual and geographical boundaries

The study was conducted in Kupang District, East Nusa Tenggara Province, a context characterised by geographical isolation, limited infrastructure, and diverse cultural and linguistic backgrounds. While the district reflects many of the systemic challenges facing Indonesia's early childhood education (ECE) sector, such as uneven quality, limited professional recognition, and dependence on external support, it also possesses distinctive socio-cultural dynamics that shape mentoring in unique ways.

For instance, the strong communal ethos (*gotong royong*) and faith-based motivations evident among educators in Kupang influenced how mentoring relationships evolved and were sustained. These cultural configurations may not directly mirror conditions in urban or industrialised regions such as Java or Sumatra. Hence, while the findings provide analytical insight into how mentoring functions within resource-constrained and collectivist settings, they should not be assumed to represent all Indonesian ECE contexts. Rather, their transferability lies in the conceptual and relational patterns identified, consistent with Stake's (2005) view that case study knowledge supports naturalistic generalisation through readers' interpretation of contextualised experience.

Sampling and participant representation

Nevertheless, the number and range of participants were necessarily limited. Although the study included a national-level government representative from the Ministry of Education, Culture, Research, and Technology, as well as local government and village-level representatives, it did not capture the broader range of national policy and programme stakeholders who may influence or be influenced by mentoring. Parents and community

leaders were also not directly included as participants. Their absence limited the extent to which the study could trace the full range of mesosystemic and exosystemic interactions surrounding mentoring. Additionally, participants were drawn primarily from those already engaged in mentoring initiatives, which may have introduced a degree of positive bias towards the perceived benefits of mentoring.

Efforts were made to counterbalance this through critical probing during interviews, but it remains possible that dissenting or disillusioned voices were underrepresented. Future studies might adopt a multi-stakeholder sampling design that includes non-participating teachers or institutions with minimal mentoring exposure to compare perceptions and outcomes more comprehensively.

Temporal and programmatic limitations

Bronfenbrenner (2005) emphasised the chronosystem as an essential yet often neglected dimension of ecological research. Although this study incorporated a temporal lens, examining mentoring processes before and after donor withdrawal, it was nonetheless constrained by a limited fieldwork time frame. The research captured mentoring interactions across approximately one academic year, supplemented by retrospective accounts from participants. This duration allowed for the identification of developmental trajectories and relational changes but did not permit long-term tracking of how mentoring influenced classroom practice or child outcomes over multiple years.

A further limitation concerns the study's treatment of child outcomes. Although teachers, mentors, and programme stakeholders reported perceived changes in children's learning, development, engagement, and behaviour, the study did not collect direct observational or assessment data from children. These findings should therefore be understood as participants' perceptions and reported observations rather than independently verified child outcomes. Future research could incorporate direct measures of children's learning and development to examine more systematically the relationship between teacher mentoring, pedagogical change, and child outcomes.

Direct observations by the researcher were not possible during the data collection period due to COVID-19 restrictions. Although some mentors continued school visits to observe teachers' activities, particularly in preparing online learning, these activities could not be

directly observed by the researcher. While these disruptions yielded valuable insights into adaptability and resilience, they also constrained the consistency and depth of observational data.

Directions for future research

The findings of this study open several avenues for extending knowledge about mentoring and professional learning in early childhood education (ECE), especially in low-resource, culturally diverse contexts such as Indonesia. Three key directions for future research are particularly pertinent: advancing longitudinal understanding of mentoring, deepening comparative and cross-cultural inquiry, and linking mentoring processes with measurable learning outcomes.

1. Longitudinal and process-oriented inquiry

Future studies should examine mentoring as a long-term developmental process rather than a discrete intervention. This study captured mentoring interactions over roughly one academic year, yet Bronfenbrenner's (2005) chronosystem reminds us that developmental processes unfold across extended timeframes. Longitudinal qualitative or mixed-method studies could track mentors and teachers over several years to explore how relationships mature, how professional identity evolves, and how institutional and policy shifts reshape mentoring systems. Process-oriented designs would also illuminate the dynamics of sustainability, how mentoring networks adapt after external funding ends and how relational trust endures or transforms. Such inquiry would fill a critical gap in mentoring literature, which has tended to privilege short-term evaluation over long-term professional trajectories (Clarke, 2018; Hobson & Malderez, 2013).

2. Comparative and cross-cultural perspectives

While this research offers deep insights into the mentoring ecology of Kupang District, comparative studies are needed to understand how cultural and systemic differences influence mentoring practices. Examining multiple sites across Indonesia's provinces - or across Association of Southeast Asian Nations (ASEAN) member states- could illuminate both shared principles and locally adapted approaches influenced by governance structures, social norms, and resource conditions. Such comparative inquiry would contribute to scholarship

from the Global South by challenging dominant Global North paradigms and situating mentoring within culturally embedded and relational pedagogical traditions (Rao et al., 2017; Tikly, 2019). Collaborative studies involving regional partners and institutions such as Southeast Asian Ministers of Education Organisation Regional Centre for Early Childhood Care Education and Parenting (SEAMEO CECCEP) could generate a body of contextually grounded evidence to inform policy and regional capacity-building frameworks.

3. Linking mentoring with teacher and child outcomes

A major research frontier lies in empirically tracing how mentoring influences teaching practices and child development. While this study illuminated professional learning processes, it did not directly measure changes in pedagogy or learning outcomes. Future research could employ mixed-method or quasi-experimental designs that integrate mentoring analysis with classroom observations, teacher performance assessments, and child development tools such as the Early Childhood Development Index (ECDI 2030) (UNICEF, 2023). Establishing these linkages would advance both theoretical and practical understanding of mentoring as a mechanism for improving quality in ECE. Moreover, integrating ecological and developmental perspectives would demonstrate how support for teachers ultimately contributes to children's holistic growth, realising the bioecological principle that every developmental process is relational and reciprocal.

Together, these three directions- longitudinal analysis, cross-cultural comparison, and the integration of professional and child outcomes- offer a coherent agenda for extending the ecological study of mentoring. They reinforce the notion that mentoring is not a static technique but an evolving developmental system shaped by people, relationships, and time. Advancing this research will deepen understanding of how professional learning can be sustained and scaled within the diverse realities of early childhood education in the Global South.

Closing reflection

This study set out to understand how mentoring relationships shape the professional learning of early childhood teachers in Kupang District and how those relationships are influenced by the ecological systems surrounding them. In doing so, it has illuminated mentoring not as a discrete intervention but as a living ecology of practice, an evolving set of relationships through which teachers, mentors, and communities co-construct meaning, sustain motivation, and navigate systemic constraints.

Mentoring as an evolving ecological relationship

At the heart of the inquiry lies a recognition that mentoring is both personal and systemic. It is personal because it depends on trust, empathy, and shared reflection between individuals; yet systemic because these relationships are continually shaped by institutional arrangements, cultural expectations, and policy decisions. The findings revealed that when relational trust and professional recognition align, mentoring becomes a conduit for both teacher development and social transformation. Conversely, when policy fragmentation or inequitable recognition undermines these interactions, mentoring risks becoming mechanical or short-lived.

This duality echoes Bronfenbrenner's (2005) conception of development as a reciprocal process between person and environment. In Kupang, mentors and teachers influenced one another through dialogue, observation, and emotional support, while simultaneously being shaped by district policies, community norms, and temporal shifts such as donor withdrawal and the pandemic. Mentoring, therefore, can be seen as a bioecological process of professional growth: a dynamic system in which relationships, contexts, and time interact to produce learning and adaptation.

Researcher's reflexive journey

Conducting this study was itself a form of mentoring in practice. Entering the field as both practitioner and researcher, I experienced continual negotiation between empathy and analysis, participation and observation. The process deepened my appreciation of relational ethics, that knowledge production in education is inseparable from care, respect, and humility (Thornton, 2014). The teachers and mentors who shared their experiences did more than

provide data; they modelled the resilience and commitment that sustain Indonesia's ECE system against considerable odds.

Through reflexive engagement, I also came to view my own role as part of the broader ecology of change. Each conversation, observation, and written interpretation contributed not only to academic understanding but also to the collective story of professionals striving to nurture young children in challenging environments. This journey reaffirmed that research, like mentoring, is an act of reciprocal learning, in which both the researcher and participants grow through dialogue.

Re-centring human relationships in policy and research

A key realisation emerging from this work is that human relationships remain the most powerful infrastructure of quality. Material resources, curricula, and regulations are essential, but without emotionally intelligent and professionally supported educators, the system cannot thrive. Recognising mentoring as an ecological relationship reframes professional development from training delivery to capacity cultivation, an approach that values process over prescription and partnership over hierarchy. This has profound implications for how governments and institutions design teacher-support systems, evaluate quality, and measure success.

Towards a sustainable culture of mentoring

The Kupang experience demonstrates that sustainability in mentoring does not depend solely on external funding or formal structures; it is sustained by relational continuity, community ownership, and cultural resonance. When teachers and mentors internalise mentoring as part of their professional identity, as something they *are* rather than something they *receive*, the system becomes more resilient. The challenge ahead lies in scaling this culture without losing its relational essence. Policies must therefore be crafted to protect time, trust, and collaboration, the invisible yet vital conditions for deep learning.

Concluding thoughts

In reflecting on this research journey, I return to Bronfenbrenner's (1979) enduring insight: that to understand human development, we must observe it "in its natural habitat" (p. 22). This thesis has sought to do just that, situating professional learning within the real, complex habitats of teachers' lives. What has emerged is a picture of mentoring as both fragile and transformative: fragile because it depends on relational care in contexts of scarcity; transformative because it enables educators to see themselves as agents of change within their own ecosystems. Ultimately, the story of mentoring in Kupang is also a story of hope. It shows that even within structural constraints, dedicated individuals can create micro-systems of growth that ripple outward, strengthening communities, influencing policy, and enriching children's early experiences. The ecological metaphor thus extends beyond theory; it becomes a reminder that educational change is always relational, always contextual, and always possible.

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LIST OF APPENDICES

Appendix A. Ethical clearance from the Ethics Committee

Te Wānanga Toi Tangata
Division of Education
The University of Waikato
Private Bag 3105
Hamilton,
New Zealand, 3240

Division of Education Research
Ethics Committee (DEREC)
fedu.ethics@waikato.ac.nz
www.waikato.ac.nz



13/5/2021

Dear Dwi Purwestri Sri Suwarningsih

Division of Education Research Ethics Committee Application Approved FEDU030/21

I am pleased to advise you that your ethics application for the project entitled "A Case Study of Teacher Mentoring in a Holistic-Integrative Early Childhood Development Programme in Kupang, Indonesia" was approved by Te Wānanga Toi Tangata Division of Education Research Ethics Committee on May 13th, 2021.

Please be aware that the Te Wānanga Toi Tangata Division of Education Research Ethics Committee must be advised (by memo) of any changes to the details recorded in your ethics application. Please send any such advice to fedu.ethics@waikato.ac.nz. You will receive a memo of approval once the change(s) has been considered.

Kind regards



Co-chairs

Te Wānanga Toi Tangata Division of Education Research Ethics Committee (DEREC)

Appendix B. Permission to the Governor of Nusa Tenggara Timur Province

Number: 01/I/2021

Attachment: 1 (summary of the research proposal)

Re: Request for an Endorsement

To: The Governor of Nusa Tenggara Timur Province

Cq. The Head of Provincial Investment and One-stop Integrated Service Office (DPMPTSP)

Address: Jl. Basuki Rahmat No 1 Naikolan, Kota Kupang, Nusa Tenggara Timur 85142

I would like to inform you that the person listed below, Dwi Purwestri, is a PhD student in the School of Education at The University of Waikato, New Zealand.

Name : Dwi Purwestri Sri Suwarningsih

Student ID : 1520168

Email/Phone Number : ds201@students.waikato.ac.nz - 08122691249

Faculty/Programme : School of Education - The University of Waikato/Doctoral Programme

Research title : “A Case Study of Teacher Mentoring in a Holistic-Integrative Early Childhood Development Programme in Kupang, Indonesia”

Research Location : Kupang District

Timeframe : June – November 2021

I will support Dwi Purwestri in carrying out the research in Kupang District, Nusa Tenggara Timur Province, in accordance with the ethical standards outlined and approved by the University of Waikato Division of Education Ethics Committee on [13/5/2021], approval number: FEDU030/21.

Should you have any questions, concerns, or complaints about the project, you are welcome to contact Dwi by phone (+6282220020026) or her email ds201@students.waikato.ac.nz. I can also be contacted via email at donella.cobb@waikato.ac.nz

Thank you for your cooperation

Kind Regards,



Dr. Donella Cobb

Chief Supervisor

Appendix C. Research approval from the Governor's office



PEMERINTAH PROVINSI NUSA TENGGARA TIMUR
DINAS PENANAMAN MODAL PTSP
Jalan Basuki Rahmat Nomor 1 – Nakolai
(Gedung B Lantai I, II Komplek Kantor Gubernur Lama)
Telp. (0380) 821827, Fax. (0380) 821827 WA : 081236364466
Website : www.dpmptsp.nttprov.id Email : dpmptsp.nttprov@gmail.com
KUPANG 85117

SURAT IZIN PENELITIAN
NOMOR : DPMPTSP.70/3660/PTSP/XII/2021

Yang bertanda tangan di bawah ini :

Nama : Drs. Marsianus Jawa, M.Si
Jabatan : Kepala Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu Provinsi Nusa Tenggara Timur

Dengan ini memberikan Izin Penelitian kepada :

Nama : Dwi Purwestri Sri Suwarningsih
NIM : -
Jurusan/Prodi : Pendidikan
Instansi/Lembaga : Fakultas Pendidikan Universitas Waikato, New Zealand

Untuk melaksanakan penelitian, dengan rincian sebagai berikut :

Judul Penelitian : "STUDI KASUS MENTORING GURU PAUD PADA PROGRAM PAUD HOLISTIK-INTEGRATIF DI KABUPATEN KUPANG PROVINSI NUSA TENGGARA TIMUR- INDONESIA"
Lokasi Penelitian : 24 Kecamatan di Kabupaten Kupang
Waktu Pelaksanaan
a. Mulai : 15 Januari 2022
b. Berakhir : 30 Oktober 2022

Dengan ketentuan yang harus ditaati, sebagai berikut :

1. Sebelum melakukan kegiatan penelitian, terlebih dahulu melaporkan kedatangannya kepada Bupati/Walikota Cq. Kepala Kesbangpol/DPMPTSP setempat yang akan dijadikan obyek penelitian;
2. Mematuhi ketentuan peraturan yang berlaku di daerah/wilayah/lokus penelitian;
3. Tidak dibenarkan melakukan penelitian yang materinya bertentangan dengan topik/judul penelitian sebagaimana dimaksud diatas;
4. Peneliti wajib melaporkan hasil penelitian kepada Gubernur Nusa Tenggara Timur Cq. Kepala Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu Provinsi NTT;
5. Surat Izin Penelitian dapat dibatalkan sewaktu-waktu apabila tidak sesuai dengan ketentuan yang berlaku.

Demikian Izin Penelitian ini dibuat untuk dipergunakan sebagaimana mestinya.

Kupang, 20 Desember 2021

a.n. GUBERNUR NUSA TENGGARA TIMUR
KEPALA DINAS PENANAMAN MODAL DAN PTSP
PROVINSI NUSA TENGGARA TIMUR


Drs. MARSIANUS JAWA, M.Si
Pembina Utama Muda
NIP. 19650808 199503 1 003

Tembusan :

1. Gubernur Nusa Tenggara Timur di Kupang (sebagai laporan);
2. Wakil Gubernur Nusa Tenggara Timur di Kupang (sebagai laporan);
3. Sekretaris Daerah Provinsi Nusa Tenggara Timur di Kupang (sebagai laporan);
4. Kepala Badan Kesbangpol Provinsi NTT di Kupang;
5. Pimpinan Instansi/Lembaga yang bersangkutan.

Appendix D. Permission to The District Government

To:

The head of National and Politic Unitary Office, Kupang District
(KEPALA BADAN KESATUAN BANGSA DAN POLITIK/KESBANGPOL KABUPATEN
KUPANG)

Address: Oelamasi, JL Timur Raya, Kabupaten Kupang.

Greeting!

I would like to inform that the person stated below, Dwi Purwestri is a PhD student in the School of Education at The Universtiy of Waikato, New Zealand

Name : Dwi Purwestri Sri Suwarningsih
Student ID : 1520168
Email/Phone Number : ds201@students.waikato.ac.nz - +62 8122691249
Faculty/Programme : School of Education - The University of Waikato/Doctoral
Programme
Research title : “A Case Study of Teacher Mentoring in a Holistic-Integrative Early
Childhood Development Programme in Kupang, Indonesia”
Research Location : Kupang District
Timeframe : June – November 2021

I will support Dwi to carry out the research in Kupang District in Nusa Tenggara Timur Province according to ethical standards as outlined and approved by the University of Waikato Division of Education Ethics Committee on [13/5/2021], *approval number: FEDU030/21*.

Should you have any questions, concerns or complaints about the project, you are welcome to contact Dwi by phone (+6282220020026) or her email ds201@students.waikato.ac.nz. I can also be contacted via email at donella.cobb@waikato.ac.nz

Thank you for your cooperation

Kind Regards,



Dr. Donella Cobb
Chief Supervisor

This research has been approved by the University of Waikato Division of Education Ethics Committee on [13/5/2021]. Approval number: FEDU030/21. For further information, please contact Dwi by phone (+6282220020026)

Appendix E. Approval from The District Government

 **PEMERINTAH KABUPATEN KUPANG**
DINAS PENANAMAN MODAL DAN PELAYANAN TERPADU SATU PINTU
(DPM-PTSP) E-Mail dpmptsp2@gmail.com
Jln. Timor Raya Km. 36 Oelamasi

Oelamasi, 05 Januari 2022

Nomor : 074/03/DPM-PTSP/I/2022
Perihal : Izin Penelitian

Kepada
Yth.
Kabupaten Kupang
di-
Tempat

Menunjuk surat Kepala Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu (DPM-PTSP) Provinsi Nusa Tenggara Timur Nomor : DPMPTSP-070/3660/PTSP/XII/2022, tanggal 20 Desember 2021, Perihal Izin Penelitian dan setelah mempelajari rencana kegiatan / proposal yang diajukan, maka dapat diberikan izin penelitian kepada:

Nama : Dwi Purwestri Sri Suwarningsih
NIM :
Jurusan / Prodi : Pendidikan
Kebangsaan : Indonesia
Instansi/Lembaga : Universitas Waikato New Zealand

untuk melakukan penelitian dengan judul :

**"STUDI KASUS MENTORING GURU PAUD PADA PROGRAM PAUD HOLISTIK-
INTEGRATIF DI KABUPATEN KUPANG PROVINSI NUSA TENGGARA TIMUR,
INDONESIA"**

Lokasi : 24 Kecamatan di Kabupaten Kupang
Lama Penelitian : 15 Januari 2022 s/d 30 Oktober 2022

Peneliti berkewajiban untuk menghormati/mentaati peraturan dan tata tertib yang berlaku di daerah setempat dan wajib melapor hasil Penelitian kepada Bupati Kupang Cq. Kepala Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu Kabupaten Kupang.

Demikian izin penelitian ini dikeluarkan untuk dipergunakan sebagaimana mestinya atas kerjasama yang baik disampaikan terima kasih.

An. Kepala DPM-PTSP Kabupaten Kupang
Sekretaris,

* SHERLY HARMİYANTI, SE, MSI
Ngs. 19710830 200003 2 007

Tembusan :

1. Bupati Kupang di Oelamasi (Sebagai Laporan);
2. Kepala Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu Provinsi NTT di Kupang;
3. Kepala Kantor Keshangpol Kabupaten Kupang di Oelamasi;
4. Pimpinan Instansi/Lembaga yang bersangkutan;

Appendix F. Summary of the research proposal

Summary

Mentoring is not specifically mentioned in the Indonesian government regulation as an approach to support teachers' professional development. Yet, research shows that mentoring has many benefits for newly qualified teachers (Aspfors Fransson, 2015). Mentoring is often linked to better teaching and learning quality and greater student achievement (He, 2009). Despite growing global evidence on the benefits of mentoring practices, most previous studies have been conducted in Western contexts. The purpose of this study is to explore the common mentoring practices in a Holistic Integrative Early Childhood Development (HI-ECD) programme across 4 regions in Kupang District, Nusa Tenggara Timur Province. In particular, this study will explore the mentoring practices of mentors, teachers, government officials, and development agencies. This study will also consider possible future directions for mentoring practices in Indonesia.

This proposed study will use a multi-method approach, combining an online survey and semi-structured interviews to collect data. The participants in this proposed study will be sub-district mentors and ECE teachers involved in the HI-ECD programme in Kupang district, as well as policy-makers at national, district, and village levels. It is expected that approximately 48 teachers and sub-district mentors will participate in the online survey. Around 24 teachers and mentors, and eight policymakers will be invited to participate in the semi-structured interviews. All interviews will be conducted via Zoom to mitigate issues related to the COVID-19 pandemic.

This proposed study aims to inform the government on the benefits and challenges of mentoring practices, especially for ECE teachers. The results of this proposed study will help policymakers and educational consultants in Indonesia set up a mentoring system to strengthen ECE teachers' professional learning and development. Lastly, this proposed study will draw on the perspectives of mentors, teachers, development agencies, and policymakers to inform the future direction of mentoring practices in Indonesia.

This research has been approved by the University of Waikato Division of Education Ethics Committee on [13/5/2021]. Approval number: FEDU030/21. For further information, please contact Dwi by phone (+6282220020026)

Appendix G. Invitation message for online survey (teachers)

Dear Teachers

RE: Invitation to participate in a research project

Greeting!

You are receiving this message because you are one of the 248 teachers involved in the HI ECD Programme in Kupang District.

My name is Dwi Purwestri Sri Suwarningsih. I am currently a doctoral student at the University of Waikato, New Zealand, and I am conducting a research project in fulfillment of a Doctor of Philosophy degree. The title of my research is “A Case Study of Teacher Mentoring in a Holistic-Integrative Early Childhood Development Programme in Kupang, Indonesia”.

I am writing to invite you to participate in this research project. As a teacher who has participated in the mentoring programme, your contributions will be highly valued. This survey is voluntary, and any decision to participate or not will not have any impact on your current role, relationship, and/or employment status with the government. No payment will be made as a result of participating in this survey.

To participate in the survey, you should be working in one of the 124 HI-ECD centres that are part of the mentoring programme, and be an active member of the HI-ECE teachers working group (before the COVID-19 pandemic).

Should you wish to participate in this online survey, please send a WhatsApp message to my number (08122691249) by texting “TEACHER SURVEY”

When I receive your text, I will send you a link for the online survey. The survey will take about 15 minutes.

Thank you very much

Regards,

Dwi Purwestri

This research has been approved by the University of Waikato Division of Education Ethics Committee on [13/5/2021]. Approval number: FEDU030/21. For further information, please contact Dwi by phone (+6282220020026)

Appendix H. Invitation message for online survey (mentor)

Dear Mentors

RE: Invitation to participate in a research project

Greeting!

You are receiving this message because you are one of the 30 mentors involved in HI-ECD Programme in Kupang District.

My name is Dwi Purwestri Sri Suwarningsih. I am currently a doctoral student at the University of Waikato, New Zealand, and I am conducting a research project in fulfillment of a Doctor of Philosophy degree. The title of my research is “A Case Study of Teacher Mentoring in a Holistic-Integrative Early Childhood Development Programme in Kupang, Indonesia”.

I am writing to invite you to participate in this research project. **All 30 sub-district mentors are invited to participate in this online survey!** As a key participant, your contributions will be highly valued. This survey is fully voluntary, and your decision to participate or not will not have any impact on your current role, relationship, and/or employment status with the government. No payment will be made as a result of participating in this survey.

Should you wish to participate in this online survey, please send a WhatsApp message to my number (08122691249) by texting “MENTOR SURVEY”

When I receive your text, I will send you a link for the online survey via WhatsApp. The survey will take about 15 minutes.

Thank you very much

Regards,

Dwi Purwestri

This research has been approved by the University of Waikato Division of Education Ethics Committee on [13/5/2021]. Approval number: FEDU030/21. For further information, please contact Dwi by phone (+6282220020026)

Appendix I. Online survey questions for the teachers

Online Survey [Teacher]

By agreeing to participate in this survey, you consent to the following:

- ☐ I agree to participate in a 15-minute online survey.
- ☐ I understand that my name will not be disclosed and my identity will be protected by code.
- ☐ I understand that while every effort will be made to protect the anonymity of my identity, this cannot be guaranteed.

Personal information

Name: _____

Gender: F/M

Mobile Phone: _____

Highest Educational Background:

- a. Post-Graduate (PGDiploma, Master)
- b. B.A
- c. Diploma I/II/III
- d. High School
- e. Junior high school

Teaching experiences:

- a. Less than a year
- b. 1 – 2 years
- c. 2 – 4 years
- d. 5 – 10 years
- e. More than 10 years.

How many times did you participate in mentoring trainings facilitated by The University of Waikato (Dr. Sonja Arndt and Dr. Donella Cobb) in 2018 – 2019?

- a. Once
- b. Twice
- c. Three times
- d. More than three times
- e. Never

ECD Centre Identification

Name of Centre: _____

Name of Village: _____

Name of sub-district: _____

Name of the mentor: _____

Questions

1. How many times did you participate in the HI-ECE teachers' training? *Tick one option*
 - a. Once
 - b. Twice
 - c. Three-times
 - d. More than three-times
2. How often did your mentor visit your centre before the COVID-19 pandemic? *Tick one option*
 - a. Once a month
 - b. Twice a month
 - c. Three times a month
 - d. Four times a month or more
3. When the mentor visited your centre what did he/she do with you and other teachers? *Tick all that apply*
 - ☐ Had a reflective conversation with me and the other teachers
 - ☐ Observed my teaching
 - ☐ Demonstrated a new teaching strategy, activity or game
 - ☐ Gave feedbacks to me and other teachers
 - ☐ Other _____
4. What are the factors that have enabled you to be involved in monthly cluster meetings? *Tick all that apply*
 - ☐ The programme is conducted in my centre and linked to school-wide efforts.
 - ☐ I am actively involved in professional learning activities (e.g. I choose goals and activities for myself).
 - ☐ Emphasis on demonstration, supervised trials and feedbacks.
 - ☐ Training is clear and ongoing
 - ☐ Ongoing assistance and support available on request
5. In terms of shifting from the classical method to child-centred pedagogy, what professional development supports the development of your pedagogical skills? *Tick all that apply*
 - a. Teacher training and mentor training at NEO Hotel
 - b. Mentor's regular visits to my centre
 - c. HI-ECD monthly cluster meeting
 - d. Teachers-mentors' meeting
 - e. Other _____

6. How often did you participate in the monthly HI-ECE teachers' cluster meeting before the covid-19 pandemic? *Tick one option*
 - a. 3 – 4 times a year
 - b. 5 – 6 times a year
 - c. Always
 - d. Never
7. What did you learn from the cluster meeting? *Tick all that apply*
 - Developing teaching plans
 - Creating teaching materials/teaching aids
 - Discussing financial issue to support the centres
 - Preparing accreditation
 - Other _____
8. List some of the changes you observed in children as a result of you implementing mentoring practices? *Tick all that apply*
 - Children are happier
 - Children play more with local materials [rocks, sands, leaves, etc]
 - Children have more language skills [tell stories to their friends and teachers, ask more questions, etc]
 - Children have more social-emotional skills [sharing with friends, keen to play more in groups, queuing in order, etc]
 - Other _____
9. What contribution did your mentor make to get support from the village government to your centre? *Tick all that apply.*
 - Promoting support for building renovation [including toilet and handwashing facilities]
 - Promoting support for budget availability for indoor/outdoor materials
 - Support for teachers' incentive
 - Support for attending Professional Learning Community [cluster meeting, teachers' association meeting, etc]
10. Can you describe what mentoring means to you? *Tick all that apply*
 - Leadership for change [pedagogical change]
 - Psychological support for teachers [motivation, encouragement, challenge teachers' teaching-practice]
 - Someone who provides advice on teachers' teaching problems
 - Someone who encourages parents' participation to the centre
 - Other _____

Appendix J. Online survey questions for the mentors

Online Survey [Mentor]

By agreeing to participate in this survey, you consent to the following:

☐

I agree to participate in a 15-minute online survey.

☐

I understand that my name will not be disclosed and my identity will be protected by a code

☐

I understand that while every effort will be made to protect the anonymity of my identity, this cannot be guaranteed.

Personal information

Name: _____

Gender: F/M

Mobile Phone: _____

Highest educational background:

- a. Post-Graduate (PG Diploma, Master)
- b. B.A in Education
- c. B.A in ECD
- d. Diploma I/II/III
- e. High School

Did you have any teaching experience before you commenced your mentoring role?

- a. Yes
- b. No

If Yes :

What level of education did you teach?

- a. ECE teacher
- b. Sunday School teacher
- c. Elementary School teacher
- d. Junior high school and above

How many years of teaching experiences did you have before becoming a mentor:

- a. Less than a year
- b. 1 – 2 years
- c. 2 – 4 years

- d. 5 – 10 years
- e. More than 10 years.

How long have you been in a mentoring role?

- a. Less than a year
- b. One year
- c. Two years
- d. Three years or more

Do you think the mentoring programme can be implemented online [via Zoom Meeting, Facebook posting-comment]?

- a. Yes
- b. No

Coverage area

Name of the sub-district: _____

Do you live in the sub-district where you work?

- a. Yes
- b. No

How many mentors are there in your sub-district: _____

How many HI-ECD centres are there in your sub-district: _____

Questions

1. How many times did you participate (in total) in the HI-ECE teachers' training and mentoring workshop? *Tick one option*
 - a. Once
 - b. Twice
 - c. Three-times
 - d. More than three-times
2. How often did you visit the centres before the COVID-19 pandemic? *Tick one option*
 - a. Once a month
 - b. Twice a month
 - c. Three times a month
 - d. Four times a month or more
3. What did you do when you were at the centres and working with the teachers to enhance their pedagogical practice? Please rank [from 5 to 1] the following statements starting from what you did most [5] to what you did least [1].
 - Having reflective conversation with teachers []
 - Carrying out observations []
 - Demonstrating a particular teaching strategy, method or approach []
 - Giving feedback to teachers []
 - Leading a cluster group meeting []

4. What are the factors that enable teacher involvement in a Professional Learning Community (PLC), such as HI-ECD cluster meetings and mentor-teachers' association/ working group? *Tick all that apply.*
 - Programme conducted in centre settings and linked to school-wide efforts.
 - Teachers choose their own goals and activities.
 - Observations and feedback on teaching.
 - Clear and ongoing training.
 - Ongoing assistance and support are available on request.
5. In what training or professional learning programme did you learn about child-centred pedagogy? *Tick all that apply*
 - a. Teacher training and mentoring training at NEO Hotel
 - b. Quarterly refresher trainings
 - c. HI-ECD monthly cluster meetings
 - d. Teachers-mentors' meeting
 - e. Learning independently [through the modules, books, etc]
6. How often did you facilitate the monthly HI-ECE teachers' cluster meeting before the COVID-19 pandemic? *Tick one option*
 - a. 3 – 4 times a year
 - b. 5 – 6 times
 - c. Always
 - d. Never
7. What content did you include in your cluster meetings? *Tick all that apply*
 - Teaching plan development
 - Creating teaching materials/teaching aids
 - Discussing financial issues to support the centres
 - Preparing accreditation
 - Other topics

Explain: _____
8. What changes have you observed in children's achievement as a result of teachers implementing child-centred pedagogy? *Tick all that apply.*
 - Children are happier
 - Children play more with local materials [rocks, sand, leaves, etc]
 - Children have more language skills [e.g., telling stories to their friends and teachers, asking more questions, etc.].
 - Children have more social-emotional skills [e.g., they share with friends, are keen to play more in groups, and queue in order]
 - Other _____
9. What have you achieved regarding coordination with the village government? *Tick all that apply.*
 - Funding support for building renovation [including toilet and handwashing facilities]
 - Funding support for indoor/outdoor materials
 - Support for teachers' incentives

- Support for attending Professional Learning Community meetings [cluster meeting, teachers' association meeting, etc]
 - Support from "ECD Mother" [the wife of the head of the village]
10. Can you describe what mentoring means to you? *Tick all that apply*
- Leadership for change [pedagogical change]
 - Psychological supports for teachers [motivation, encouragement, challenge teachers' teaching practice]
 - Someone who provides advice on teachers' teaching problems
 - Someone who encourages parents' participation in the centre
 - Other _____
11. What is the most important factor in building a relationship with the teachers? *Tick one option*
- Establishing friendship and building trust
 - Giving technical suggestions and solving teachers' problems
 - Modelling
 - Giving specific tasks (challenging assignments) to teachers, such as using local materials as teaching aids, rearranging the classroom, etc.
 - Setting a clear goal
12. What are the key factors that made your mentoring relationship with teachers successful? *Tick two options*
- Knowing teachers' professional learning needs
 - Shifting teachers' pedagogical skills [applying child-centred pedagogy]
 - Teachers are becoming more confident in using child-centred methods
 - Changing the learning environment [classroom arrangement, teacher-children interaction, curriculum relevant to the local context, locally-based learning materials]

Appendix K. Information and invitation sheets for teachers in Kupang District

Dear: Participants

PARTICIPANT INFORMATION SHEET FOR TEACHERS

Project Title:

“A Case Study of Teacher Mentoring in a Holistic-Integrative Early Childhood Development Programme in Kupang, Indonesia”.

My name is Dwi Purwestri Sri Suwarningsih. I am currently undertaking a research project in fulfillment of a Doctor of Philosophy degree through the University of Waikato’s School of Education, New Zealand.

This research aims to investigate mentoring practices in a Holistic Integrative Early Childhood Development (HI-ECD) Programme implemented across 24 sub-districts in four Regions of Kupang District, Indonesia. In particular, I am interested in examining the benefits and the challenges of the mentoring practices from the perspective of teachers. As a teacher who has participated in the mentoring programme, your voice will be valuable to this research. I respectfully invite you to be part of my research. Choosing to participate in this research or not will not have any impact on your current role, relationship, and/or employment status with the government.

Why were you chosen for this research?

You have been invited to participate in this study because you have a minimum of two years of teaching experience and participated in the ECE teacher working group at least three times per year (for beginning teachers), or have participated in mentoring trainings facilitated by the University of Waikato in 2018 and 2019) and participated in the ECE teacher working group or cluster meetings at least six times per year (for experienced teachers).

What does the research involve?

Should you choose to participate in this study, your contribution will involve the following:

Semi-structured interview: The semi-structured interviews will take place via Zoom or phone call and will be about 60 to 75 minutes.

- The interview will be conducted at a date and time that is suitable for you. With your consent, the interview will be audio-recorded, though you may request that the recorder be switched off at any time. During the interview, you may decline to answer a question, and you may discontinue the interview at any time by exiting Zoom or ending the WhatsApp call.
- A copy of the summary of the interview transcript will be sent to you, and you can review, edit, or amend comments to ensure that it is an accurate record of your intended meaning. This process of checking the interview transcript will take approximately 25 minutes.

Participation in this research is voluntary. You may withdraw from the project at any stage until the summary of interview transcripts is verified. A pseudonym will be used to identify participants in the writing up of the research to maximise anonymity, although anonymity cannot be guaranteed. Any shared data, such as quotes, will no longer be confidential once reported in the project, but participants' identities will remain confidential. You have the right to withdraw or amend any information on the transcripts within 14 days of the receipt of the transcripts. The final thesis report will be accessible electronically at the University of Waikato's Research Commons.

Should you have any concerns or complaints about the project's conduct, you are welcome to contact me via email at ds201@students.waikato.ac.nz or by phone at +62 8122691249. Alternatively, you may contact my research supervisors, Dr. Donella Cobb and Dr. Amanda Bateman. Their contact details are as follows:

Chief Supervisor

Dr Donella Cobb (donella.cobb@waikato.ac.nz)

Senior Lecturer

Co-Director, Centre for Global Studies in Education.

Deputy Director, Education, Centres of Asia-Pacific

Excellence. Te Wānanga Toi Tangata - Division of

Education. Te Kura Toi Tangata - School of

Education

University of Waikato, Private Bag 3105

Hamilton 3240, New Zealand

Supervisor

Dr. Amanda Bateman

(abateman@waikato.ac.nz)

Associate Professor Early Childhood

Education, School of Education

(Tauranga). University of Waikato

Private Bag 2105, Hamilton 3240

New Zealand

If you are willing to participate in this study, please complete the attached consent form and email it to me at ds201@students.waikato.ac.nz. Alternatively, a link to an online consent form will be provided via WhatsApp; you can fill out the form and sign it electronically. Thank you for your support.

Kind Regards,



Dwi Purwestri Sri Suwarningsih

Email: ds201@students.waikato.ac.nz

Hp: +62 8122691249

This research has been approved by the University of Waikato Division of Education Ethics Committee on [13/5/2021]. Approval number: FEDU030/21. For further information, please contact Dwi (+6282220020026)

Appendix L. Information and invitation sheets for mentors in Kupang District

Dear: Participants

PARTICIPANT INFORMATION SHEETS FOR MENTORS

Project Title:

“A Case Study of Teacher Mentoring in a Holistic-Integrative Early Childhood Development Programme in Kupang, Indonesia”.

My name is Dwi Purwestri Sri Suwarningsih. I am currently undertaking a research project in fulfilment of a Doctor of Philosophy degree through the University of Waikato’s School of Education, New Zealand.

This research aims to investigate mentoring practices in a Holistic Integrative Early Childhood Development (HI-ECD) Programme implemented across 24 sub-districts in four Regions of Kupang District, NTT, Indonesia. In particular, I am interested in examining the benefits and the challenges of the mentoring practices. As a mentor, your voice would be valuable to this research. I respectfully invite you to be part of my research. Choosing to participate in this research or not will not have any impact on your current role, relationship, and/or employment status with the government.

Why were you chosen for this research?

You were invited to participate in this study because one of the teachers you mentor was selected as a participant. In addition, you either commenced your mentoring role in 2020, or you participated in more than 3 mentoring training sessions facilitated by the University of Waikato in 2018 and 2019, actively participated in the monthly ECE teacher cluster meetings, and have been in the mentoring role for more than 4 years.

What does the research involve?

Should you choose to participate in this study, your contribution will involve the following:

Semi-structured interview: The semi-structured interviews will take place via Zoom or phone call and will be about 60 to 75 minutes.

- The interview will be conducted at a date and time that is suitable for you. With your consent, the interview will be audio-recorded, though you may request that the recorder be switched off at any time. During the interview, you may decline to answer a question, and you may discontinue the interview at any time by exiting Zoom or ending the WhatsApp call.
- A copy of the interview transcript will be sent to you, and you can review, edit, or amend comments to ensure that it is an accurate record of your intended meaning.

This process of checking the interview transcript will take approximately 25 minutes.

Participation in this research is voluntary. You may withdraw from the project at any stage until the final summary of the interview transcripts is verified. Pseudonyms will be used to identify mentor participants in the writing up of the research to maximise anonymity, although anonymity cannot be guaranteed. Pseudonyms are necessary to ensure each participant's anonymity. Any shared data, such as quotes, will no longer be confidential once reported in the project, but participants’ identities will remain confidential. You have the right to withdraw or amend any information on the transcripts within 14 days of the receipt of

the summary of transcripts. The final thesis report will be accessible electronically at the University of Waikato's Research Commons.

Should you have any concerns or complaints about the project's conduct, you are welcome to contact me via email at ds201@students.waikato.ac.nz or by phone at +62 8122691249.

Alternatively, you may contact my research supervisors, Dr. Donella Cobb and Dr. Amanda Bateman. Their contact details are as follows:

Chief Supervisor

Dr Donella Cobb

Senior Lecturer

Co-Director, Centre for Global Studies in Education.

Deputy Director, Education, Centres of Asia-Pacific

Excellence. Te Wānanga Toi Tangata - Division of

Education. Te Kura Toi Tangata - School of

Education

University of Waikato

Private Bag 3105, Hamilton 3240, New Zealand

donella.cobb@waikato.ac.nz

Supervisor

Dr. Amanda Bateman

Associate Professor, Early Childhood

Education, School of Education

(Tauranga).

University of Waikato

Private Bag 2105

Hamilton 3240

New Zealand

abateman@waikato.ac.nz

If you are willing to participate in this study, please complete the attached consent form and email it to me at ds201@students.waikato.ac.nz. Alternatively, a link to an online consent form will be provided via WhatsApp; you can fill out the form and sign it electronically.

Thank you for your support

Kind Regards,



Dwi Purwestri Sri Suwarningsih

Email: ds201@students.waikato.ac.nz

Hp: +62 8122691249

This research has been approved by the University of Waikato Division of Education Ethics Committee on [13/5/2021]. Approval number: FEDU030/21. For further information, please contact Dwi by phone (+6282220020026)

Appendix M. Consent form for all interview participants

CONSENT FORM

Project Title: “A Case Study of Teacher Mentoring in a Holistic-Integrative Early Childhood Development Programme in Kupang, Indonesia”.

Researcher: Dwi Purwestri Sri Suwarningsih.

I have been asked to take part in the project mentioned above, and I have read the Participant Information Sheet. I understand the nature of this study, and I hereby consent to participate in this interview.

☐

I agree to participate in this study.

☐

I agree to participate in a 40-minute interview via Zoom with the researcher at a date and time suitable for me.

☐

I agree to provide access to documents that are specific to mentoring and teachers’ continuing professional development.

☐

I agree to allow the interview to be audio-recorded. I understand that I can request that the recorder be switched off at any time throughout the interview.

☐

I understand that participation in this study is voluntary. During the interview, I can refuse to answer any questions or discontinue the interview at any time by exiting the Zoom meeting. I can withdraw from the study at any time up to the final interview transcript being verified.

☐

I understand that I can withdraw or amend any information on the transcript within 7 days of receipt, and that this will take approximately 20 minutes.

☐

I understand the researcher will use a pseudonym in writing up the research to protect my identity and keep it confidential, but because of my job title, my name might be identifiable to the public.

☐

I understand the researcher will keep the data secure; however, any shared data, such as quotes and the name of my office, will no longer be confidential, as it will be reported in the project.

Name of Participant: _____

Date: _____

Signature: _____

This research has been approved by the University of Waikato Division of Education Ethics Committee on [13/5/2021]. Approval number: FEDU030/21. For further information, please contact Dwi by phone (+6282220020026)

Appendix N. Interview questions for the teachers

Semi-structured interview for teachers

1. Could you tell me about your teaching experiences?
Probing:
 - *How long have you been teaching?*
 - *What do you like about teaching early children?*
 - *What are the advantages and challenges of being a preschool teacher?*
2. In what ways did your mentor help you in your centre? In what ways did your mentor help you improve your teaching practice? Could you provide some examples?
3. How would you describe your relationship with your mentor? What have been some of the challenges of working with a mentor? *Are there any tensions between you and your mentor? If there are, could you provide some examples?*
4. To what extent have mentoring practices had an impact on your teaching strategies? If so, can you give some examples?
5. To what extent has your mentor helped you to enhance children's learning? In what ways has your mentor helped you to engage with and/or involve parents in their child's learning?
6. To what extent has your mentor influenced decision-making about ECD at the village level? Could you provide some examples?
7. What are your visions for mentoring practice in the future?

Appendix O. Interview questions for the mentors

Semi-structured interview for mentors

1. Tell me about your educational background and teaching experiences. How have these experiences informed your role as a mentor?
2. Tell me why you decided to become a mentor.
3. Based on your experiences, how would you define a successful mentoring relationship with ECE teachers?
4. Can you share your experiences of mentoring one teacher?
5. During your role as a mentor, what benefits and challenges did you encounter in your mentoring practices?
6. Could you describe a typical agenda for the HI-ECD cluster meetings at the sub-district level? What did you include on the agenda and why?
7. To what extent was the induction/mentoring programme for HI-ECD mentors sufficient to enable you to carry out your roles as a mentor?
8. From your perspective, in what ways did your mentoring practices have an impact on teachers' pedagogical development?
9. To what extent do you believe that your mentoring practices have had an impact on the ECD manager's capacities?
10. Based on your experiences, in what ways do you think that the mentoring program in Kupang District creates a learning community?
11. What kind of skills do you believe a mentor should have to be more effective in a mentoring relationship with teachers? What kind of strategies and why?
12. Describe your vision for how the mentoring programme could be implemented in the future?

Appendix P. Information and invitation sheets for policy makers and development agencies

Dear: (Recipient name/job title)

PARTICIPANT INFORMATION SHEETS

Project Title:

“A Case Study of Teacher Mentoring in a Holistic-Integrative Early Childhood Development Programme in Kupang, Indonesia”

My name is Dwi Purwestri Sri Suwarningsih. I am currently undertaking a research project in fulfillment of a Doctor of Philosophy degree through the University of Waikato's School of Education, New Zealand.

This research aims to investigate mentoring practices in a Holistic Integrative Early Childhood Development (HI-ECD) Programme implemented across 24 sub-districts in four Regions of Kupang District, East Nusa Tenggara (or NTT) Province. In particular, I am interested in understanding how the mentoring programme was developed, implemented, and monitored by key policymakers. I am also interested in exploring future directions for mentoring practices in Indonesia. I respectfully invite you to participate in my research. If you are interested in participating, your participation would involve:

- a 40-minute online interview via Zoom or WhatsApp Video Call to discuss how the mentoring programme was developed, implemented, and monitored by policymakers, as well as the future directions for the mentoring programmes in Indonesia.
- The interview will be conducted at a date and time suitable for you. With your consent, the interview will be audio-recorded, though you may request that the recorder be switched off at any time. During the interview, you may decline to answer a question, and you may discontinue the interview at any time by exiting Zoom or ending the WhatsApp call.
- A copy of the interview transcript will be sent to you, and you can review, edit, or amend comments to ensure that it is an accurate record of your intended meaning. This process will take approximately 20 minutes.
- With your consent, I would also like to obtain access to documents specific to the development and implementation of the ECD mentoring programme from relevant divisions/units within your office.

Participation in this research is voluntary. You may withdraw from the project at any stage until the final interview transcripts are verified. I will be very careful to protect your identity by using a pseudonym or a code in place of your name in my write-ups, research, academic publications, and presentations to maximise anonymity. Pseudonyms are necessary to ensure each participant's anonymity. However, you need to be aware that, because of your position and job title, you might be identifiable to the public. While I cannot guarantee your anonymity, I can guarantee your confidentiality. Any shared data, such as quotes, will no longer be confidential, as it has been reported in the project. You have the right to withdraw

or amend any information or the summary of transcripts within 14 days of receipt of the email. The final thesis report will be accessible electronically at the University of Waikato's Research Commons.

Should you have any concerns or complaints about the project's conduct, you are welcome to contact me via email at ds201@students.waikato.ac.nz or by phone at +62 8122691249. Alternatively, you may contact my research supervisors, Dr. Donella Cobb and Dr. Amanda Bateman. Their contact details are as follows:

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If you are willing to participate in this study, please complete the attached consent form and email it to me at ds201@students.waikato.ac.nz. Alternatively, a link to the online consent form will be provided via WhatsApp; you can fill out the form and sign it electronically. Thank you for your support

Kind Regards,



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This research has been approved by the University of Waikato Division of Education Ethics Committee on [13/5/2021]. Approval number: FEDU030/21. For further information, please contact Dwi by phone (+6282220020026)

Appendix Q. Interview questions for the MoECRT – One

Individual interview for MoECRT Representative One

1. Tell me about your involvement in the Kupang mentoring programme?
2. How was the mentoring programme developed? How was the ECE Directorate involved with UNICEF in the development of the mentoring programme in Kupang District?
3. What was the process involved in implementing the mentoring programme in Kupang District?
4. How was the mentoring programme in Kupang District monitored by the ECE Directorate?
5. What are you considering the benefits of having a mentoring programme at the district level?
6. Based on your experiences in monitoring the mentoring programme in Kupang, what challenges did the ECE Directorate face during the implementation of the HI-ECD programme? And how did the Directorate overcome these challenges?
7. Do you know of any national programmes that use a similar approach to the mentoring programme in Kupang? If so, what programme was this and how did the mentoring roles support the ECE teachers?
8. What are your suggestions for improving mentoring programmes in the future?

Appendix R. Interview questions for the MoECRT - Two

Individual interview for the MoECRT Representative Two

1. What are the roles of your Directorate in terms of improving the capacities and skills of ECE Teachers and Education Personnel?
2. What kinds of teachers' professional learning communities (PLC) are available in Indonesia? What resources does the government provide to support the PLC?
3. Based on your knowledge of the educational system in Indonesia, are there any forms of teachers' professional development involving mentor/facilitator/lead-teacher to support ECE teachers' professional development? If so, what are these, and how are they implemented?
4. What have been your experiences in working with the mentoring programmes developed by other agencies, such as the World Bank and Save the Children?
5. In your opinion, what are the benefits and challenges of the mentoring or coaching programme for ECE teachers and education personnel in Indonesia, such as the mentoring programme in Kupang District?
6. What is your vision for future mentoring programmes in Indonesia?

Appendix S. Interview questions for Development Agency One

1. Tell me about your involvement in the Kupang mentoring programme.
2. How was the mentoring programme developed? How was MFAT involved with UNICEF in developing the mentoring programme in Kupang District?
3. How was the HI-ECD Programme, including the mentoring programme in Kupang District, monitored by MFAT?
4. What benefits did you observe as a result of implementing the mentoring programmes in Kupang District for children, teachers, mentors, ECD village communities, local/International NGOs, and national stakeholders?
5. Based on your experiences in monitoring the mentoring programme in Kupang, what challenges did the MFAT face during the implementation of the HI-ECD programme? And how did the MFAT overcome these challenges?
6. What were the benefits and challenges of working with local authorities (village, sub-district, district government) and the national-level policymakers when implementing the mentoring programme?
7. Do you know of any MFAT programmes in Indonesia that used a similar approach to the mentoring programme in Kupang? If so, what programme was this and how did the mentoring roles support the teachers?
8. What are your suggestions for improving mentoring programmes in the future?

Appendix T. Interview questions for Development Agency Two – Education Specialist

1. What mentoring programmes has your organisation supported in the past? How were they implemented in Indonesia?
2. Why did you choose mentoring as a professional development strategy? Were there any benefits and challenges of the mentoring programme?
3. Based on your knowledge of the educational system in Indonesia, what forms (if any) of teachers' professional development involving mentor/facilitator/lead-teacher are there to support ECE teachers' professional development?
4. Do you think that it is feasible for Indonesia to use a mentoring programme to support beginning teachers?
5. What do you consider your organisation could have done differently when establishing the previous mentoring/coaching programme in Indonesia?
6. What lessons could be learned from this experience?

Appendix U. Interview questions for Development Agency Three – ECD Specialist

Individual interview for Education Specialist

1. Tell me about your involvement in the Kupang mentoring programme.
2. Why did you choose mentoring as a professional development strategy for ECE teachers?
3. What benefits did you observe as a result of implementing the mentoring programmes?
4. What were some of the barriers/challenges you faced in implementing the mentoring programme? How did you address these?
5. What were your organisation's strategies when working with the national government during the implementation of HI-ECD in Kupang District?
6. What were the benefits and challenges of working with the national-level policy makers when implementing the mentoring programme?
7. What were some of the benefits of the mentoring programme for children, teachers, mentors, ECD village-communities, local/International NGOs, and national stakeholders? What were some of the challenges?
8. What will your organisation do differently in the future in developing another mentoring programme?

Appendix V. Interview questions for Development Agency Three

Individual interview for ECD Specialist

1. Tell me about your involvement in the Kupang mentoring programme.
2. What processes were involved in establishing the mentoring programme in Kupang District?
3. How were the mentoring roles and responsibilities established?
4. How was the mentoring programme implemented in ECD centres? And how was it monitored?
5. What benefits did you observe as a result of implementing the mentoring programmes?
6. What were some of the barriers/challenges you faced in implementing the mentoring programme? How did you address these?
7. What were your organisation's strategies when working with the district and village government during the implementation of HI-ECD in Kupang District?
8. What were the benefits and challenges of working with local authorities (village, sub-district, district government) when implementing the mentoring programme?
9. What were some of the benefits of the mentoring programme for children, teachers, mentors, ECD village-communities, local/International NGOs, and national stakeholders? What were some of the challenges?
10. What will your organisation do differently in the future in developing another mentoring programme?

Appendix W. Interview questions for the head of the District Education Office (DEO)

Individual interview for the head of the District Education Office

1. Tell me about your involvement in the Kupang mentoring programme.
2. What were some of the achievements from the HI-ECD programme in your District?
3. I understand that the Kupang District government hired 30 mentors shortly after UNICEF/MFAT's support ended. Could you tell me about the process that the government has gone through to achieve this point?
4. What are the benefits and challenges of having a mentoring programme in your district?
5. Can you describe your experiences and observations of the mentoring programmes and what effect the mentoring programme has had on the quality of HI-ECD services in your District?
6. Can you share the plans for the mentoring programme in the District's mid-term development plan?

Appendix X. Interview questions for the Head of Village representative

Individual interview for the representative of the head of the village

1. Tell me about your involvement in the Kupang mentoring programme.
2. Can you describe the types of teachers' professional learning communities (PLCs) available in Kupang District? What is the role of the village government in supporting these PLCs?
3. What are the benefits and challenges of having a mentoring programme in your village/sub-district? What are the benefits of a mentoring programme for the children and for the teachers?
4. Can you describe what teaching and learning looked like in the ECD centres in your village before and after the mentoring programme?
5. What support have you provided to mentors, ECD centres, and their communities?
6. What are the mentor's roles during the (annual) village development planning meeting?
7. From your observations, what have been the positive effects of the mentors brought to the quality of HI-ECD services in your village? These might include learning environment, teachers' capacities, parents' involvement, and the safety, security and well-being of the children.
8. Can you share your village development plan (for next year) in terms of the mentoring programme and the teachers' development programme?

Appendix Y. Interview questions for the development agency

Four

1. What is your role in your organisation?
2. What was your role during the implementation of the ECE teacher mentoring programme in Kupang? How often did you visit Kupang programme and in what capacity?
3. Could you share your experiences of training the teachers and mentors in the ECE teacher mentoring programme?
4. What do you consider to be the benefits of implementing the ECE teacher mentoring programme?
5. What challenges did you experience during the implementation of the ECE teacher mentoring programme?
6. How would you describe mentors' and teachers' confidence from the first training to the second and third training during the implementation of the ECE teacher mentoring programme?
7. Based on your observations (during trainings or field visits), how would you describe the capacities/skills of the mentor and teachers at various phases of the training and the programme?
8. From your perspective, to what extent have mentoring practices had an impact on teachers' professional learning and development?
9. What is your vision for future ECE teacher mentoring programmes in Indonesia?

Appendix Z. Interview questions for Development Agency Five

1. How was your organisation involved in the ECE teacher mentoring programme in Kupang?
2. What role did you, as the Programme Manager, play in monitoring and implementing the ECE teacher mentoring programme in Kupang?
3. What do you consider to be the benefits of implementing the ECE teacher mentoring programme?
4. What challenges did you experience during the implementation of the ECE teacher mentoring programme? Please specify how you managed the work of the mentors.
5. Based on your observations, how would you describe the relationship between the mentor and teachers at various phases of the programme?
6. How would you describe an effective mentoring relationship (between mentor and ECE teachers)?
7. From your perspective, to what extent have mentoring practices had an impact on teachers' professional learning and development?
8. What is your vision for future ECE teacher mentoring programmes in Indonesia?
9. Do you have any documents or publications to support your explanations? If yes, could you please share these documents/media and publications?

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