University of Southern Queensland

INVESTIGATING EARLY YEARS EDUCATORS' UNDERSTANDINGS OF, BELIEFS ABOUT AND PRACTICES OF ACTIVE PLAY IN COLOMBO, SRI LANKA

A Thesis submitted by

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ABSTRACT

Significant research shows that physical activity habits provided early in life have a positive trajectory into future health and developmental benefits. Yet, despite the known benefits, research points to concerns over young children not being as active as they should be according to guidelines on physical activity (PA) and sedentary behaviour (SB). This study contributes to the body of literature that explores the current active play practices employed by early childhood educators within the context of Colombo, Sri Lanka, and investigates educators' beliefs, understandings and practices translated into active play practices within early childhood settings (educational environments catering to three to five-year-old children). The study adds significant insights to the current debate on how context and lived experiences impact on values, understandings, and practices. The employed and adapted social-ecological model, the Educator Micro Context (EMC) model, then helped to explore the contextual nuances in each early childhood setting (Stokols, 1996). The EMC model was also effective in helping to understand and appreciate the pervasiveness of those factors impacting on the facilitation of and support for active play in these settings.

These insights are critical to children's exposure to active play experiences in the early years and their future physical activity behaviours, health and wellbeing that track throughout adolescence and into adulthood.

CERTIFICATION OF THESIS

I, Matteo Dietz, declare that the PhD Thesis entitled *Investigating early years educators' understandings of, beliefs about and practices of active play in Colombo, Sri Lanka*, is not more than 100,000 words in length including quotations and exclusive of tables, figures, appendices, bibliography, references and footnotes. The thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

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DEDICATION

I am dedicating this work to my parents who always believed in me and encouraged me to work hard and never give up. I am grateful for their belief in me during this journey that started in 2015, when I first played with the idea of applying for a PhD. You have always understood when I needed your support and encouragement, but you also knew when I needed time to myself. I look forward to fulfilling my promise to you and traveling to Queensland with you, to visit USQ and meet my doctor parents.

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CHAPTER 1: INTRODUCTION

The ontological and epistemological assumptions that meaning-making occurs from within the contexts and through ongoing collaboration with social beings, formed the foundation of this research (Phothongsunan, 2010). Ongoing co-construction between the researcher and the educators informed the context-bound reality of the phenomenon (Polyglossia, 2010). My lived experiences and how I viewed the world were a key element that then contributed to the development of the research focus.

Lived experiences are understood to be the way that an individual interprets and describes experiences that occur within particular contexts of their everyday lives. Besides acknowledging that my own subjectivity influences how I see and understand the phenomenon, illuminating the lived experiences of educators and how these influenced their views of the world was essential in capturing a deeper and contextualised understanding of the phenomenon. With the context for these experiences constantly changing and unfolding, new educators and new settings are introduced.

These ontological and epistemological assumptions underpin the thesis as a whole. It is anticipated that, in reading this thesis, others may also identify with this journey and identify with the approach taken to understand the world better. It is hoped that researchers may make connections with examples from their own research that may have caused them to make meaning in collaboration with other experts situated within the context being studied.

1.1. Overview of the chapter

Chapter 1 will help to set the scene of the context and the phenomenon being studied. This helps to outline the research problem and the goals of the study. The focus of the study was to understand comprehensively the factors that impacted on early years educators' decision-making, values and practices regarding active play facilitation in early years settings (catering to 3-5-year-old children) in Colombo, Sri Lanka.

1.2. Introduction

This study drew upon my lived experiences of who I was as an educator and the experiences and the context in which I was situated. I was fortunate to be exposed to and learn more about educational teaching practices offered across a variety of educational early years settings. Early in my teaching career as an early childhood educator in Genova, Italy, I noticed that physical activity was valued as being an integral part of early years education within this context.

The early years curriculum was underpinned by play-based learning, which included active play and movement-based practices and experiences, such as moving to music and open-ended outside play time offered to children to engage in moderate to vigorous physical activity, as well as the explicit teaching of fundamental movement skills (FMS) taught by a certified Physical Education teacher. The early years educators in this context strongly valued these physically active play experiences for students, based on developmentally appropriate active play practices. However, despite this, the international curriculum for teaching and learning adopted by the international school where I taught provided limited guidance to educators regarding the amount of time dedicated to physical activity, or the types of experiences to support these pursuits.

1.3. Setting the scene – the context of Sri Lanka

I was fortunate enough then be offered the opportunity to teach within Colombo, Sri Lanka. Sri Lanka, formerly known as Ceylon, is an island country in South Asia, with a population of just under 22 million people. Across Sri Lanka there are a number of different types of schools, such as Government schools, Provincial schools and schools that cater to the education of monks. These schools are subject to directions by the Ministry of Education, and they commonly follow a curricular program of study designed to ensure nationwide uniformity of content and standards in education across Sri Lanka. While this applies to more formal schooling, only minimum standards and requirements for early childhood education (ECE) settings are in place. No guiding national framework has been approved or adopted by the parliament that guides pedagogical and

developmentally appropriate practice for early years settings. In my teaching position as a Kindergarten teacher working with 5–6-year-old children in Sri Lanka, I benefitted once again from teaching in an international learning environment.

The international school did not directly fall under the control of the Ministry of Education and could therefore follow a curriculum more suitable to the needs of its international learning community. However, it was not long before the trend towards limiting opportunities for physical activity in favour of more academic pursuits was evidenced. This phenomenon extended beyond my teaching context and into both government-run and privately-owned early years settings, where increasingly time was dedicated to academic learning and teaching subjects such as mathematics and literacy, to the detriment of opportunities dedicated to active play and physical activity. Within these contexts, the integration of, and the planning for, active play experiences were left to the devices and discretion of individual early years educators, and often depended on their personal experiences with physical activity and the value that they placed on active play. Unfortunately, this situation left a potential incongruence in physical activity habits among early years settings.

1.4. Benefits of physical activity and active play in early years contexts

A significant body of literature attests to the many benefits of physical activity and active play (PAAP) for children and young people, and to PAAP being a key protective factor for the prevention of noncommunicable diseases (Bruijns et al., 2020; Johnson et al., 2019; LeBlanc et al., 2012; WHO, 2019, 2020). Benefits of children engaging in PAAP in the early years include those related to cognitive development, wellbeing and mental health (Carson et al., 2015; Shonkoff, 2017; Sun et al., 2020), as well as physiological (LeBlanc et al., 2012; Ranasinghe et al., 2020) and physical health benefits (Sofo & Asola, 2015). Promising evidence from research related to young children and to the benefits gained from learning through movement has been associated with a number of reasons that include movement being part of children's growth process and movement learning (Bentsen et al., 2021; Bjørgen, 2016; Gray et al., 2015; Hasson et al., 2022, Herrington &

Brussoni, 2015).

Neuroscience research reinforces that physical activity, and using the body kinesthetically to explore the environment, promote and support cognition (Callow et al., 2020; Nuzum et al., 2020; Shonkoff, 2017; Sibley & Etnier, 2003). This includes working memory, attention and self-regulation, which are predictors of early and long-term academic success among young children (Becker et al., 2014; Gestsdottir et al., 2022; Korucu et al., 2021; LeBlanc et al., 2012; Sattelmair & Ratey, 2009). Further, findings from studies in the field of neuroscience highlight that forms of play, such as active play are a way of building and shaping the emotion, motivation and reward regions of the brain, suggesting something beyond a functional, linear relationship between play and learning (Lester & Russell, 2008).

For the purpose of this study, active play was referred to as those planned or incidental, often intrinsically motivated, gross motor play-based learning experiences that usually include a cardiovascular, holistic health or broader developmental benefit. During active play, children develop their abilities to exert deliberate, conscious control over their thoughts, actions and emotions (Diamond, 2012; Dutra et al., 2022; Korucu et al., 2021). In doing so, play reveals children's current level of development and their potential needs for learning and also enables teachers to provide support accordingly (Barnett, 2013; Chan et al., 2022; Korucu et al., 2021).

1.5. Notion of concern

However, while significant research reinforces the value of physical activity and active play, unfortunately in many early years settings (educational environments catering to three-to-five-year-old children), across a range of national and international contexts, children are not obtaining the recommended levels of physical activity or active play, nor are they provided with the recommended time to engage in active play or physical activity outdoors (Andersen et al., 2016; Copeland et. al., 2012; Gans et al., 2022; Henderson et al., 2015; Kuzik et al., 2015). Some research even suggests that lower physical activity levels, and increased sedentary behaviours, might be a significant

contributor to the high proportion of children being the first in history to have a life expectancy that is shorter than that of their parents (LeBlanc et al., 2012). These issues are of concern, particularly given research that reinforces that physical inactivity may result in health risks tracking into adulthood (Craige et al., 2011; Hayes et al., 2019; Sun et al., 2020).

1.6. Importance of early years educators and environments

Children in the early years are spending approximately 5000 hours a year awake, both at home and in early years settings. As such, both contexts are understood to be significant environments to promote and support children's physical activity, active play behaviours and fundamental movement skills (Tonge et al., 2016), as well as to afford environments conducive to active play and healthy lifestyle habits (Jones et al., 2013; LeBlanc et al., 2012; Rovio et al., 2017; Nobre et al., 2022). Given that the period of early childhood has been identified as "the optimum time" (Lynch & Soukup, 2017, p. 5) for establishing children's physical activity behaviours (Tonge et al., 2016), and that these practices lead to more favourable long-term physical activity habits and behaviours in adulthood (Cardon et al., 2009; Rovio et al., 2017), it is critical that key stakeholders promote and facilitate children's opportunities for physical activity and active play in the early years (LeBlanc et al., 2012; Tonge et al., 2017; Ward, 2010).

Given the reachability of children engaged in active play and learning in early years settings (Kuzik et al., 2015), educators work within an enabling environment (Tomlinson et al., 2021) and hold a significant role as gatekeepers in facilitating experiences and opportunities that afford active play (Bruijns et al., 2019; Ng et al., 2020; Pakarrinen et al., 2020). Several studies have suggested that early years educators' understandings, beliefs, behaviours, attitudes, perspectives and practices play a key role in promoting or deterring opportunities for children to engage in physical activity, depending upon positive or negative prompts, modelling, practices and environments (Copeland et. al., 2012; LeBlanc et al., 2012; Tonge et al., 2017; Yufiarti & Yetti, 2021).

A number of research studies have highlighted, that there is currently uncertainty related to the extent to which active play is occurring within these early years settings (Al-Hazzaa, 2018; Spencer et al., 2019; Toussaint et al., 2020). There is also limited awareness of educators' practices and factors that can potentially influence their understandings, beliefs and practices related to active play. This is of concern because limited background information regarding factors impacting on decision-making hinders the ability to target support and capacity-building strategically for early years educators in relation to their active play practices. Given this, it makes sense to understand better the types of factors and the contextual influences that impact on educators' practices and the PAAP environments that they afford and privilege (Becker et al., 2014; Sando & Sandseter, 2020; Tonge et al., 2016).

1.7. Research into physical activity and active play in early years environments

Research into the physical activity of young children (birth to five), and into the spaces in which they actively play and learn, is slowly emerging (Stanley et al., 2016; Tandon et al., 2015). At this point, a significant number of these studies has focused on physical activity and active play with older children in primary school settings (Coleman & Dyment, 2013; Copeland et al., 2016; LeBlanc et al., 2012) and in secondary school contexts (Hollis et al., 2017). For example, existing studies focused on primary school settings with older children (Carson et al., 2015) have explored phenomena such as the ways in which physical education experiences were designed and instructed by certified physical education teachers. More research needs to be conducted that explores the contextualised factors that impact on active play practices in early years settings. This is important in gaining deeper insights into children's actual active play practices, and in understanding and gaining an appreciation of those spaces that are conducive to facilitating opportunities for active play in the early years.

However, at this point, the majority of research in this space has adopted a positivist approach to inquiry (Hollis et al., 2017), with a focus on large numbers of children, and employing a range of quantitative measuring tools, such as ActivPAL (a

non-invasive method of monitoring human rest/activity cycles), pedometers (a device that counts each step a person takes) and accelerometers (a device that measures the vibration, or acceleration of motion of a structure) to measure the frequency, intensity and duration of physical activity (Arvidsson et al., 2019; Bruijns et al., 2020; Carson et al., 2015; Clevenger et al., 2018; O'Brien et al., 2020). Such research objectively measured the amount of physical activity and sedentary behaviour to which children were exposed in primary and secondary school settings, (Brusseau et al., 2016; Grunseit et al., 2020).

Similarly, much of the existing literature in the field of physical activity in the early years has focused on objectively measuring the physical environment, the levels of physical activity and the types of physical activity that occur within early years settings (Bruijns et al., 2020; Ellis et al., 2017; Tonge et al., 2016). This type of research is important in identifying whether and to what extent children are physically active in educational settings. However, there is an opportunity for further research to explore early years educators' understandings, beliefs and practices related to active play, as well as how these understandings, beliefs and practices translate into actual active play practices in early years settings. This is of concern as what educators say that they do might not actually reflect the active play practices offered and the support provided to children at the setting.

Further, owing to limited attention having been given to in-depth research focused on exploring the complexity associated with the facilitation of active play from an interpretivist lens, the nuances or factors that impact on active play practices in the early years are currently unknown. This includes factors such as educators' lived physical activity experiences, children's interest in active play or parental concerns for children's health and well-being. This is of concern as those nuances or factors significantly impact on the facilitation of and support for active play practices within the early years settings. Accordingly, the field would benefit from gaining insights into how different contexts, such as early years settings in Colombo, Sri Lanka, may potentially nuance educator support for and decision-making about active play practices.

While there are concerns regarding a paucity of research currently being conducted in early years settings related to this phenomenon, there are a number of innovative researchers who are seeking to understand and explore educators' practices (Chalke, 2016; Chaput et al., 2014; Henderson et al., 2015) and the physical activity levels of children while in early years settings (Kuzik et al., 2015). For example, Henderson et al. (2015) assessed 35 early years settings serving 389 children aged 3-5 years. They explored the environmental characteristics of the settings, such as the size of the outdoor play area and the suitability of the indoor environment for physical activity practices, as well as staff participation and its impact on the physical activity levels of children in early years settings (Henderson et al., 2015). Henderson et al. (2015) found that elements of the indoor environment, such as "the presence of physical activity books, posters, and pictures" (Henderson et al., 2015, p. 6), and staff encouragement were associated with increased levels of children's physical activity in the indoor environment (Henderson et al., 2015).

Given the identified issues and related concerns, as well as the pioneers who are setting the course for future studies in this area, the intent of this study was to generate and to contribute further insights related to factors impacting on physically active play facilitation. This study sought to explore the interconnected elements and processes colliding within early childhood settings, such as early years educators' decision-making and those contextualised factors that impacted on their decision-making and practices. The intent of this type of investigation was to increase awareness of the type of factors that impact on the facilitation of active play practices directly from within the early years setting, or indirectly from the outside onto the setting.

Exploring the phenomenon of active play from an interpretivist lens then facilitated a deeper understanding of the social and cultural context impacting on the phenomenon being studied. The underpinning intent of interpretive research is that it is well-suited for exploring the hidden nuances that shape the complex, interrelated or multifaceted social processes found in relationships, and where evidence from quantitative research may be rather biased, inaccurate, or difficult to obtain. Secondly,

using interpretive research is often found to be helpful for theory construction in areas with no or insufficient a priori theory. Thirdly, interpretivist research is used to study context-specific, unique, or idiosyncratic events or processes. Finally, interpretive research can also contribute to uncovering relevant research questions and issues for further research in the field of study.

Owing to a paucity of research currently undertaken to study context specific explorations of active play practices in early years setting, the decision was made to take an interpretivist approach to investigate the factors that influence educators' understandings of and values for planning and providing active play opportunities in the early years (Henderson et al., 2015; Hinkley et al., 2016; Martyniuk & Tucker, 2014). The deliberate decision to explore this phenomenon from an interpretivist lens was also made so that it would facilitate a deeper understanding of the social and cultural contexts that impact on the active play practices offered in early years settings. There is currently an opportunity for engaging in this type of research, particularly research that seeks to gain insights into early years educators' active play practices and evidence of environments that support or inhibit active play (Brown, 2006). This type of research will certainly contribute to gaining a better understanding of the complexity of integrating and implementing active play practices and unplanned active play in early years settings, including specific contexts and settings such as Colombo, Sri Lanka.

Employing an interpretivist lens presented further opportunities to gain insights into early years educators' active play practices and evidence of environments that support or inhibit active play (Brown, 2012). Owing to a paucity of research taking an interpretivist approach, only limited research has investigated the factors that influence educators' understandings of and values for planning and providing active play opportunities in the EYS and curriculum (Henderson et al., 2015; Hinkley et al., 2016; Martyniuk & Tucker, 2014). This study contributed to that research by using an interpretivist paradigm to help to gain a better understanding of the complexity of integrating and implementing active play practices and unplanned active play in early years settings in Colombo, Sri Lanka.

Given the gaps identified here and the urgency of the issue of affording opportunities for young children to experience and engage in active play environments, the intent of this study was to investigate educators' understandings, beliefs and practices related to physical activity and active play. This study then explored the unique contexts of early years settings such as Colombo, Sri Lanka, and information related to the deeper understanding of the phenomenon of active play, affordances of active play and factors that impact on educators' decision-making. The intent was that this project would build on other valuable work, such as Bjørgen's (2016) research that investigated physical activity in the light of affordances in the outdoor environment of Norwegian kindergartens, catering to 3-5-year-old children, the outcome of which was helping to gain insights into children's movement behaviours, and to identify certain areas of the physical environment where children were most physically active, whereby social possibilities and opportunities for human interaction created within the early years learning environment significantly impact on the duration and intensity of physically active play.

1.8. The research goals

Given the complications identified and the issues and concerns related to the phenomenon of active play, the study focused on three key goals. Each of these goals and the associated research questions contributed significant insights to the problems outlined. These research goals and research questions are now outlined.

1.8.1. Exploring educators' understandings of physical activity and active play

Within early years settings, educators play an important role, particularly in terms of supporting learning and influencing behaviour. At this point, we know very little about educators' understandings and values of active play, and how these may influence their prioritising and affording of active play practice. Research has identified that there are multiple factors that impact on early years educators understandings and interpretations of their role in supporting and fostering active play in the early childhood context (Lu & Montague, 2016). For example, research conducted by Wilke et al. (2013)

identified that early childhood educators saw parents as having a significant role in supporting children's physical activity behaviours. This was important research as it highlighted that educator believe that parents are significant adults who are responsible for promoting physical activity in the home environment.

However, with current research related to active play within early years settings, particularly in context specific settings such as Colombo, Sri Lanka, in limited supply, Goal 1 of this study was to explore early years educators' understandings of the term 'active play', the amount of active play that they saw as important in the lives of young children (aged 3-5) and their understandings of the place of active play in early years educational settings in Colombo, Sri Lanka.

1.8.2. Exploring physical/temporal/social elements of the environment

Within contemporary societies, there is an increasing trend for children to attend structured early years settings (Gerritsen et al., 2016; Kuzik et al., 2015; Pate et al., 2008; Tandon et al., 2015). Attending early years settings has become a "rite-of- passage" (Gerritsen et al., 2016, p. 319) for many children in developed countries (Gerritsen et al., 2016). As such, early years environments are significant spaces for children to engage in physical activity, and to develop healthy physical activity behaviours (Gerritsen et al., 2016). Further, active behaviours formed early in life hold the potential of tracking into adulthood. This not only helps to prevent diseases, such as cardiovascular disease, metabolic syndrome, osteoporosis, and obesity (Hayes et al., 2019; LeBlanc et al., 2012), but also fosters the physical, cognitive, and psychosocial wellbeing of the child. This has been understood to influence long-term attitudes to and valuing of physical activity (Botey et al., 2016).

Although research is showing the health consequences of both physical activity (Timmons et al., 2012; Warburton & Bredin, 2019) and sedentary behaviours (Carson et al., 2016) in preschoolers, in many instances children are not as active in early years settings as many would think (Gerritsen et al., 2016; Pate et al., 2008). A key factor identified is the affordances of the environment that are available for children (Henderson et al., 2015). Research conducted by Henderson et al. (2015) highlighted

some aspects of the early years environment that afford physical activity and active play. These factors include a combination of time planned for outdoor play, portable equipment and staff training that were associated with physical activity and active play (Henderson et al., 2015). Further, elements of the indoor, as well as the outdoor environment of early years settings were also identified as facilitating physical activity and active play (Henderson et al., 2015).

The report "Laying foundations for early years education in Colombo, Sri Lanka" highlighted that minimum standards and requirements for preschool facilities (infrastructure, teacher qualification, etc.) have been put in place (Bhatta et al., 2014). A range of elements of the early years environment, though, was identified as potentially impacting on the facilitation of teaching and learning. These elements included the amount of time that children are spending in early years settings dedicated to teaching and learning, as well as oversized classrooms, a lack of early learning facilities and a significant number of educators not meeting the minimum standards of one year of professional ECE training (Bhatta et al., 2014). Therefore, Goal 2 sought to gain contextual insights into the idiosyncratic practices and active play environments within Sri Lankan early years settings (catering to 3-5-year-old children). In particular, the intent of the study was to explore the physical, temporal, and human elements of the environment afforded by educators for active play practices.

1.8.3. Exploring the complexity of implementing and integrating physical activity and active play

Finally, as minimum standards and requirements for preschool facilities (infrastructure) in Sri Lanka are in place, at this point there is no developed and adopted national curriculum framework that guides pedagogically and developmentally appropriate practices for early years settings (Bhatta et al., 2014). The effect is that pedagogical practices and decisions regarding the learning that is prioritised are left to the discretion of the early years educator. This includes practices related to active play and the explicit teaching of wellbeing, FMS, and associated topics (Bhatta et al., 2014). Unfortunately, within the Sri Lankan context, an early childhood framework does not

yet exist. The ramification means that there are currently no clear pedagogical guidelines for developmentally appropriate practices applicable to early years education. It is at the discretion of the Provincial Councils to implement early childhood practices and to develop child appropriate ECE programs. As such, the intent of Goal 3 was to gain a deeper understanding of early years educators' insights related to the complexity and contextual nuances of integrating and implementing active play practices and environments within early years settings in Colombo, Sri Lanka.

1.9. The research questions

1. What are early years educators' understandings and beliefs about active play practices in their early years settings in Colombo, Sri Lanka?

2. How are active play practices evidenced in Colombo early years environments?

3. What are early years educators' insights into the factors, barriers and affordances that influence the implementation and integration of active play practices within Colombo early years settings?

1.10. The personal significance of the study

Physical activity has been part of my entire life, from playing football in a football team for the first time when I was three years old, to training in various martial arts, such as Aikido, Taekwondo, Savate Boxe and Brazilian Jiu Jitsu, to practising gymnastics during university. When I started working as a substitute teacher in the early years, I realised how crucial physical activity was for students three to five years old. The school facility offered students an outdoor space that was so big that every single child had the chance to explore the natural environment, and that offered opportunities to combine being physically active with learning in the outdoors. On certain occasions, educators even took the children to the forest, which was located just behind the school grounds, requiring the children only to go through the gate, without having to cross any roads. These nature excursions were moments when children flourished, and they were able to express their creativity and to let go of their pent-up energy, whilst at the same time practising

fundamental skills and building self-efficacy in movement.

During my master's degree, I focused my research on physical activity, and on how these activities might foster mathematical understanding in children aged four to five. It was during this inquiry that I realised that physical activity was not restricted to physical education, but could also include broader interpretations and understandings, such as those activities and experiences integral to play-based learning in early years education. Working together with the children helped me to understand that movement could be integrated in their everyday learning. It was not restricted to simply the physical activity lesson anymore, but rather it constituted an approach to transdisciplinary learning and development.

It was with these lived experiences and observations, as well as with the context, in mind that I came to realise how important it was to explore the phenomenon of physical activity and active play in Colombo, Sri Lanka. Further, I have increasingly been keen to understand better and to investigate key aspects of physical activity and active play within early years settings in Colombo, Sri Lanka, including potential barriers and limitations, as well as facilitators of physical activity and active play owing to me having spent a number of years working in this city/town. I further see it as my professional responsibility and duty to share my findings not just with the participating educators, but also with the Ministry of Education in Colombo, as well as more broadly with other educators who might be interested in learning about approaches to enhancing physical activity and active play in the early years.

1.11. The importance of this study

The importance of this study arises from the intersection of three important understandings. The first point is that an increasing number of children are attending early years settings in developed countries (Gerritsen et al., 2016; Kuzik et al., 2015; Pate et al., 2008; Tandon et al., 2015), with these settings being understood to be educational environments catering to children aged three to five. Given this, gaining further insights into these sites is important in providing a deeper understanding in terms of the

educators' active play practices offered within these settings.

Second, given that children are spending a significant amount of time in early years settings, with these settings holding the potential of providing opportunities to engage in physical activity, fundamental movement skills and active play, it was important to identify those spaces within Sri Lankan early years settings that are conducive to active play. The third intersection then highlights educators' insights into factors, barriers and affordances that influence the implementation and integration of active play practices. This is important because educators significantly impact on children's opportunities to be physically active at the setting, either facilitating or limiting those opportunities.

In many instances, however, children are not as active in such settings as people believe that they are (Gerritsen et al., 2016; Pate et al., 2008, 2016). This has been attributed to pedagogical practices and decisions regarding which learning will be prioritised, which are oftentimes left to the discretion of the early years educators. This includes practices related to physically active play and the explicit teaching of wellbeing and physical skills and associated topics (Bhatta et al., 2014). This in turn has a flow on effect, with many children lacking quality early childhood experiences that might put children at risk for their future learning and development - in this case, relating to their overall holistic health, physical activity and wellbeing. Therefore, the focus of the third point is to explore the impact that educators have, as well as that of the immediate and indirect environment on the facilitation of active play in early years settings in Colombo, Sri Lanka. As this field of research represents an unexplored territory so far, it is worthy of inquiry. In this unique case, a heightened focus has been put on early years education practices, particularly in early years settings, in Colombo, Sri Lanka.

1.12. Conclusion

Extensive literature and research highlight the importance of children engaging in physical activity and active play in the early years, with more favourable long-term physical activity habits being formed in the early years and tracking into adulthood. Yet, despite the growing appreciation for and understanding of the benefits of physical

activity even for our youngest children, physical activity, and more particularly active play, appear to be limited in many early years settings (Houser et al., 2019; Johnstone et al., 2018). With an increasing number of children attending early years settings, these environments are understood as critical spaces for influencing positive attitudes and behaviours in relation to health and wellbeing (Duff et al., 2022; Nobre et al., 2022).

Within these settings, early childhood educators play a significant role in planning for and implementing physical activity and active play practices and environments for children. Unfortunately, educators' understandings and interpretations of the concept of active play, as well as those related to active play practices, differ significantly, which may in turn influence the values, the decision- making and the priorities that they place on supporting these types of practices. As each early years setting is unique, it is important that research within early years settings also investigates the idiosyncratic and contextual factors impacting on active play practices. From that perspective, the current study contributes to the limited research currently being conducted within this space, and more specifically, to research about the physical activity and active play in early years settings in Colombo, Sri Lanka.

CHAPTER 2: LITERATURE REVIEW

This chapter reviews the literature in the field of physical activity and active play. As the current literature predominantly focuses on primary and secondary school settings, the literature review provides insights into how research with older children may be applied and considered in other contexts, such as that of early childhood and young children. For the purpose of this study, a review of the existing literature is considered to help to inform insights into the current investigation into early year educators' understandings of, beliefs about and practices that support active play in Colombo, Sri Lanka. The chapter starts by exploring relevant literature related to definitions and interpretations of the terms 'physical activity' and "physically active play". Current understandings and interpretations of these terms are important for further investigating and appreciating relevant literature on active play definitions and associated research. The review of this literature also helps to inform the rationale behind the importance of focusing on 'active play' in this study.

Next, the review addresses existing research related to key themes of educators' practices for facilitating children's opportunities for physical activity and active play in early years environments. This includes research related to educators' beliefs and values and how these are influenced by factors at the macro-environment as well as how these factors influence teaching practices. Of particular interest to this study is the focus on active play, and the literature related to the influence of educators' beliefs and values on practices of active play. This research is particularly relevant, given the critical role of the early years educator as a significant adult within the early years settings and as a facilitator in integrating and implementing opportunities for active play. With early years settings being a significant environment where values, behaviours, health habits and attitudes for young children are established, including those related to physical activity and active play, the final section of this chapter focuses on research and associated literature focused that explores environments that afford, support, and facilitate physical activity and active play, including research particularly relevant to early years catering to three to five-year-olds.

2.1. Understandings and definitions of the terms 'physical activity' and 'active play'

Despite an extensive body of literature related to physical activity and physical education in the primary years (Coleman & Dyment, 2013; Copeland et al., 2016; Lu & Montague, 2016; Tonge et al., 2017) limited attention has been given to the difference between the terms physical education and 'physical activity'. Emerging research (Alexander et al., 2014; Johnson et al., 2019; Johnstone et al., 2018; Pakarrinen et al., 2020) has highlighted the importance of differentiating between these terms in order to foster a better understanding among educators. This includes the work of Lu and Montague (2016), who highlighted the use of the term physical education as being more suitable when referring to primary education, as compared to the term "physically active play" used in early years education. Others (Fernandez-Rio et al., 2020; Petrie & Clarkin-Phillips, 2017; Varea & Gonzales-Calvo, 2021) further referred to the term physical education as an academic subject intended to convey and achieve academic, educational goals in the form of physical activity taught by certified physical education teachers. This view is supported by the Association for Physical Education (AfPE) in the United Kingdom, referring to physical education as a time that is timetabled as part of the educational curriculum (AfPE, 2020).

Over recent years, though, there has been an increased research focus on the importance of fundamental movement skills and physical activity within early childhood (Bruijns et al., 2020; Duff et al., 2022; Johnson et al., 2019). In contrast to physical education, physical activity is considered as not being bound to the academic timetable (Lynch & Soukup, 2017). Recommendations emphasised the importance of integrating physical activity into the learning environment in the form of active play, nature play, or outdoor play throughout various times of the school day, such as during outdoor break time (Bai et al., 2019; Barrable, 2019; WHO, 2020).

Existing literature has attempted to explain the term 'active play' as an activity that shares components of structured play that extends to unstructured physical activity, often taking place outdoors in a child's free time (Johnson et al., 2019; Veitch, 2007).

Brady et al. (2008) referred to physically active play as "any physical activity where the child is doing what they want to do for their own reasons" (Brady et al., 2008, p. 6). According to the active play report on physical activity for children and young people (2016), active play is referred to as physical activity behaviours that do not fall under organised sport, or as physical activity undertaken at school or as a form of active transport. The United States physical activity report for children and youth (National Physical Activity Alliance, 2018) stated that there is no consensus on the term of active play, but referred to active play as an unstructured/unorganised form of play that children engaged in to be physically active in the outdoor environment (Alliance, 2018). According to Townsend et al. (2015), this includes jumping, running and catching.

However, so far, no clear definition has been established in the literature (Brown, 2012; Truelove et al., 2017). Given this, and for the purposes of the current study, one particular form of physical activity, active play is used and referred to throughout the thesis. The term active play describes those planned or incidental, often intrinsically motivated, gross motor play-based learning experiences that usually include a cardiovascular, holistic health or broader developmental benefit (Bento & Dias, 2017; Sando & Sandseter, 2020; Sun et al., 2020).

2.1.1. The Continuum of Play and Active Play

Significant studies attest to early and regular engagement in physical inactivity tracking to positive health in adulthood (Houser et al., 2019; Rovio et al., 2017). Further, the promotion of physical activity in the form of active play in the early years has been identified as an important and proactive strategy for establishing more favourable long-term physical activity habits (Cardon et al., 2009) and positive health outcomes in childhood and adolescence (Dinkel et al., 2019; Peden et al., 2017). Research has also shown that children's ability to participate in physical activity and active play requires stimulation, exposure and the practice of fundamental movement skills, which need to be explicitly taught (Martyniuk & Tucker, 2014). Owing to the complexity of play and the processes involved in acquiring fundamental movement skills, children need to be given ample active play opportunities, and exposure to appropriate amounts of time for

engaging in these experiences while in the early years setting (Bento & Dias, 2017).

Fleer (2015) wrote about the complexity of play occurring along a continuum, from teacher-structured play experiences (such as guided story telling) to play that is much or open-ended and child-initiated (such as imaginary outdoor play. The play continuum is hence viewed as a "spectrum that foregrounds both work and play in relation to how much choice a child has in play" (Fleer, 2015, p. 155). Breathnach et al. (2016) suggested a balance between child-initiated play and teacher-directed play in schools being beneficial to children's learning. Fleer (2015) further highlighted the variation in the degree of teacher support in relation to the continuum, ranging from minimal support to targeted support through to highly adult-directed intervention.

A similar approach and way of thinking is applicable to the concept of active play practices in early years settings. These experiences could range from those more structured active play experiences, usually facilitated by the educator, such as engaging in team sports like football, to open-ended active play experiences directed and initiated by the child. These types of experiences could include examples such as climbing trees during open-ended outdoor play time (see Figure 1 Continuum of Play/Active Play).

Figure 1

Continuum of Play/Active Play

Given this interpretation of active play referred to in the study adopted the broadest interpretation of active play as those experiences that occur within the full continuum.

2.1.2. The Impact of Understandings, Beliefs and Values on Practice

A range of studies has confirmed that a complex set of factors can impact on educators' understandings, beliefs, and values. These in turn influence educators' decision-making as well as their pedagogical practices (Kaymakamoğlu, 2018). For example, one of the first large-scale studies focusing on teachers' beliefs examined teachers' personal constructs of the curriculum and children (Bussis et al., 1976). Bussis et al. (1976) highlighted that "the beliefs of the individual teacher dictate what, or if, art education will take place" (Bussis et al., 1976, p. 351). Teachers who valued art education as an elementary component of the educational curriculum prepared teaching and learning experiences that actively engaged students and that promoted the importance of Art as a curricular subject. These personal constructions resulted from an individual's interpretation of the world, which Bussis et al. (1976) understood to be the "forerunners of action" (Bussis et al., 1976, p. 17).

Another seminal study on this topic, which explored the influence of teacher beliefs on instructional practice in beginning ESL classrooms highlighted the importance of exploring and understanding the "hidden pedagogy" (Burns, 1992, 57) of the classroom. The study found that instructional practices in ESL classrooms were influenced by a complex, interrelated network of teachers' underlying beliefs (Burns, 1992). These types of findings were also identified by Pennington (1989), who expressed that teachers' beliefs and practices are fundamentally interrelated. Pennington (1989) further expounded and defined teacher attitudes as a "personal theory of philosophy of instruction" (Pennington, 1989, p. 96).

Goodman-Schanz's (2012) study explored the influence of teachers' beliefs on practice with eight K-1 art teachers from the United States working in four elementary schools. Findings indicated that teachers' beliefs were based on their personal, academic, and professional beliefs, as well as on their lived experiences, which supported their classroom practices. Goodman-Schanz (2012) found that a commonality among the teachers was that they had limited lived experiences related to visual arts from

kindergarten through to engaging in their university degree. These lived experiences influenced their confidence levels, their self-efficacy, and their own creativity. Furthermore, despite having received university degrees, the teachers did not feel prepared enough with regard to their content knowledge of art. Nor did they feel ready to integrate art in the curriculum, as they showed a limited understanding of state and national visual arts standards (Goodman-Schanz, 2012). These types of factors impacted on their provision of creative arts experiences for the children in their classes.

Other studies have also reinforced the significance of an educator's lived experiences on their pedagogical practices. For example, Koster's (2001) study found that teachers needed to understand themselves as artists, and to be aware of their own personal art abilities and lived experiences in order to privilege arts-based practices and learning environments that nurtured the creative processes of children, allowing their impact on children's learning to develop and unfold (Goodman-Schanz, 2012; Koster, 2001). Bresler and Thompson's (2002) research supported this view, concluding that what has happened in the past affects what educators do in the present, commenting that: "what we teach is who we are" (Bresler & Thompson, 2002, p. 157).

Research conducted with 21 fourth-through sixth-grade mathematics teachers from elementary schools throughout Los Angeles showed that educators have different perspectives on approaches to teaching different key learning areas, such as mathematics (Stipek et al., 2001). Findings indicated that the reason for this was that most participants had a conception of mathematics as a static body of knowledge. However, another cohort of teachers in the same study believed in inquiry-based mathematics and adopted a more dynamic view on mathematics (Stipek et al., 2001). The study highlighted a coherence between teachers' beliefs and their practices. This indicated the significant influence of teachers' beliefs on their approaches to teaching and on the behaviours and performance of their students (Stipek et al., 2001).

What emerges from the range of transdisciplinary themes and subjects in the literature is that a range of factors, such as culture and context, as well as the understandings, beliefs, and values of educators, significantly impacts on their

pedagogical practice. For the purpose of this thesis, these findings were important, particularly considering that the phenomenon under investigation related to understandings, beliefs and values being interconnected elements that make up educators' pedagogical philosophy, which in turn impacts on their teaching practices and on the environments afforded. However, from a social-ecological perspective, it is also important to be cognisant that there are many other contextual factors that extend beyond the individual that impact on educators' decision-making and pedagogical practices, including those related to active play practices.

Key contextual factors impacting on physical activity and active play can be highly pervasive and are found across layers of influence. Some of these factors exist both proximally to the individual (e.g., within the immediate environment), referred to as the micro- environment, while other factors of influence are located more distally, such as at meso and macro-environmental levels. A broader level of factors of influence that impact on educators' pedagogical practices includes ideologies, laws, customs, and cultures. Factors of influence can even occur through or across time, referred to as temporal factors (or the chronosystem). Literature related to these types of factors, as well as their influence on educator practice, is now further unpacked.

2.2. Educators' understandings, beliefs and values impacting on physical activity and active play

The role of educators is significant in facilitating children's opportunities for physical activity and active play (Bruijns et al., 2019; Gage et al., 2018; Ng et al., 2020; Pakarrinen et al., 2020; Tonge et al., 2017). At this point, existing research has primarily focused on primary and secondary years teachers. This literature points to a positive association among educators' understandings, beliefs and values directly and indirectly influencing pedagogical decision-making, practices and by association the environments afforded for learning and play experiences (Derscheid et al., 2010; Gunnarsdottir, 2014; Lynch & Soukup, 2017; OECD, 2009; Stipek et al., 2001). For example, Oppermann et al. (2016) found that preschool teachers' content knowledge

was positively associated with high quality teaching and learning. The higher preschool teachers' mathematical content knowledge, the better that they were at recognising mathematics in the children's play scenario and the more confident that they felt in providing for play-based opportunities for learning (Dunekacke et al., 2015; Oppermann et al., 2016).

Research in the field of physical activity and active play shows that educators recognise and value the health benefits associated with children being physically active (Callow et al., 2020; Carson et al., 2015; Janssen, 2014; Kuzik et al., 2015; Lu & Montague, 2016; Spencer et al., 2019; Sun et al., 2020; Tandon et al., 2015; Warburton & Bredin, 2019). However, despite this positive perception regarding the value of physical activity, research suggests that educators do not believe that there is a reason for concern with regard to the integration and implementation of physical activity as an approach to teaching and learning within the early years (Coleman & Dyment, 2013; Lu & Montague, 2016). This has been attributed to educators' beliefs that children receive appropriate levels of physical activity in the form of daily routines outside regular school hours (Derscheid et al., 2010). Such views potentially impact on the amount of children's active play provided by early years educators in the early years settings (Bruijns et al., 2019; Coleman & Dyment, 2013; Lu & Montague, 2016).

Further, other studies, such as the work of Bruijns et al. (2019), found that educators commonly show limited confidence and/or skill in delivering physical activity in early years settings. This has shown to translate to limited support for these experiences within early childhood classrooms (Bruijns et al., 2019). Currently, there is a paucity of research that has explored factors such as educators' beliefs about physical activity behaviours, active play, their own physical activity behaviours and their confidence and/or skill and how this impacts on or influences affordances for active play experiences and associated environments in early years settings. While limited, these types of studies are important in order to understand better why active play practices vary significantly across educational contexts. Further, with most active play happening outdoors (Dinkel et al., 2019), more research is needed that focuses on gaining deeper insights into educators' values related to active play practices offered in the outdoor environment of

early years settings.

A range of studies in the field of physical activity shows that, despite educators' perceptions of children engaging in sufficient physical activity and active play throughout the regular school day, the reality is that children are not as active as teachers believe that they are (Dinkel et al., 2019; Pakarrinen et al., 2020). For example, Coleman and Dyment (2013) identified that educators mistakenly believed that, when children naturally engage in active play (e.g. movement and physical activity). This raises a key concern that educators' perception of the amount of time children naturally engage in physical activity may impact on the actual exposure and time that educators provide for these types of opportunities (Coleman & Dyment, 2013; Zhulamanova, 2020).

This 'gap' between the rhetoric of active play and the reality of active play (Gerritsen et al., 2016; Taylor et al., 2013) has placed active play in an insecure position in early childhood curriculum, early childhood education and in particular early years learning environments (Lafave et al., 2021; Spadafora et al., 2022; Wood & Hedges, 2016). Further, with ECE curriculum and policy documents in many instances and contexts lacking clarity and coherence in relation to the expectations of the inclusion and support for active play practices (Wood & Hedges, 2016), it is often left to the discretion of early years educators to integrate and implement active play practices and experiences (Joseph et al., 2019). This is even more prevalent within the context of early years contexts such as in Colombo, Sri Lanka, where there is currently no early years curriculum in place that recognises and values the role of physical activity and active play in early years education (Bhatta et al., 2014; Panditharathna, 2018). With the construct of the belief system being complex and context-bound and as influencing classroom practices (Hustedt et al., 2018; Kaymakamoğ lu, 2018), more research is needed that investigates early years educators' beliefs and values about physical activity and active play in early years settings.

2.3. Environments that afford for or hinder physical activity and active play

Early years settings are environments where young children spend significant time

(Bassok et al., 2016; Pate et al., 2016; Stanley et al., 2016). For example, preschool settings in Australia typically provide up to 15 hours per week for children to attend, with childcare settings providing up to 10 hours or more per day (Hinkley et al., 2016). Other parts of the world, such as North America, reflect similar statistics, with the majority of children spending around 15 to 34 hours per week in childcare settings (Capizzano & Adams, 2000; Tandon et al., 2018). European countries such as Sweden show similar contact hours for students, with a regular preschool day operating from 8:00am-3:30pm (Åström et al., 2020). Research conducted across early years settings in Asian countries, such as in Singapore, confirms that children under 6 years old spend most of their daily time in childcare centres (Choo, 2010; Jia et al., 2019).

As such, it makes sense that early year settings are understood to be an important platform from which to promote the value of physical activity and wellbeing, as well as to afford opportunities and environments for supporting physical activity and healthy lifestyle habits (Hinkley et al., 2016; Jones et al., 2013; Joseph et al., 2019; Lu & Montague, 2016). However, owing to pressures on educators, including issues related to the overscheduled curriculum, and pressures to prepare children for formal school, often referred to as "schoolification" (Ring & O'Sullivan, 2018), the time dedicated to young children's outdoor play has diminished in recent years and increasingly needs to be rationalized and justified (Bento & Dias, 2017). This presents as a serious threat to the quality of children's early years learning experiences (Ring & O'Sullivan, 2018).

Within these settings, the environment is considered the third teacher, and understood as playing a powerful role in supporting or hindering children's learning and development (Lundy & Trawick-Smith, 2020; Määttä et al., 2019; Sando, 2019). This also applies to the power that the environment has in supporting children's active play (Reimers & Knapp, 2017; Umstattd et al., 2019). Thoughtfully constructed environments can function not only as an affordance, but also as a significant provocation for learning, supporting what, but also how, children learn (Ng et al., 2020; Tucker et al., 2017).

Researchers such as Bento and Dias (2017) explored the significance of the

outdoor environment. In his study Fjørtoft (2001) identified that the natural outdoor environment has the potential to afford physically active play in early years settings. This includes specific types of environments, such as the natural environment, which was recognised as supporting dynamic, rough and tumble playscapes that challenge and help to build motor activity in children. This diverse topography of play environments included slopes and rocks, further affording for natural obstacles that create a number of active play and movement opportunities.

Interestingly, the seminal work of Bronfenbrenner (1979) identified the bidirectionality that occurs between the environment and the child. He pointed out that as the child moves within the context of a system of relationships and across and through a range of environments, each of these systems has a direct as well as an indirect impact on their development and learning. Bronfenbrenner captured this relationship of influences as part of his socioecological model, showing that both the environment and the child impact on each other (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 2006).

2.3.1. The impact of the environment on physical activity and active play

Studies have suggested that the environments in which young children move, play and work are unique and quite different from those of older children (Brown, 2012; Grunseit et al., 2020). Apart from the home environment, for many young children, one of the first encounters with regular physical activity will occur in early years settings, making the early years environment an essential place to establish positive active play behaviours (Lu & Montague, 2016). During childhood, school environments are therefore often seen as providing an important venue for young people to be physically active (Chaddock et al., 2012) and as providing developmentally appropriate practices (Chalke, 2016).

Research conducted so far has explored different educational environments that support physical activity, including pre-school settings (Hesketh & Slujis, 2015). However, at this point, tools used to measure settings that are conducive to physical activity have focused on other types of environments, such as neighbourhoods and

parks (Broyles et al., 2015; Henderson et al., 2015; Hinkley et al., 2016; Tonge et al., 2016) and primary education contexts (Grunseit et al., 2020; Hinkley et al., 2016). At this point limited research has focused on physical environments located in early years settings (Broyles et al., 2015; Nobre et al., 2022; Sando, 2019).

2.3.2. Determinants and factors that impact on active play environments

As outlined earlier, within the early years spaces, multiple determinants and contextual factors collide, in turn impacting on early years educators' values, decision-making and the priority given to the inclusion of active play practices, experiences and environments within the curriculum (Lundy & Trawick-Smith, 2020; Tonge et al., 2016; Tucker et al., 2015; Vanderloo et al., 2013). Factors have been said to cross and overlap (Bronfenbrenner, 1979). In doing so, these factors directly or indirectly afford for (e.g. benefitting, supporting and enabling) or limit the integration and implementation of physical activity and active play practices within early years settings. For the purpose of this study, the determinants of physical (in)activity were defined as being a range of factors significantly contributing to or impacting on a phenomenon or a complex set of behaviours (Deliens et al., 2015). These factors include individual determinants, such as values, norms and beliefs (which have been addressed earlier in this chapter), as well as the social environment, including the interpersonal relationships within the learning environment (Deliens et al., 2015). Contextual influences on the early years environment are understood to be those features, sets of factors, conditions or circumstances that directly and/or indirectly influence educators' practices and behaviours within a particular setting (Grunseit et al., 2020; Merlo, 2011).

The "micro-environment" represents the inner layer of an ecological system and the layer closest to the child. The micro-environment is recognised as having the greatest impact on the child and as encompassing the relationships and interactions that a child has with her or his immediate surroundings (Brown, 2012). These factors in turn significantly impact on the phenomenon of physical activity (Martyniuk & Tucker, 2014). For the purpose of this study, the educator is situated alongside the child within the micro-environment. This and other key environments will be explored in detail in

Chapter 3 (see Section 3.6.1).

Determinants and contextual influences hold the potential for affording young children's opportunities to engage in physically active play (Grunseit et al., 2020). Affordances in this study refer to the enablers and facilitators of active play both within and beyond the early years environment (Lau et al., 2017). Hence the subsequent section focuses on three main elements of the environment that are significant to children's engagement in physical activity and active play: the physical, temporal and social/human elements of early years settings.

2.3.3. Physical elements that afford or deter physical activity and active play

Numerous studies have identified the importance of the physical environment in facilitating children's levels of physical activity (Åström et al., 2020; Henderson et al., 2015; Määttä et al., 2019; Nobre et al., 2022). Elements that make up the physical environment include the built structure, the layout of the setting and spaces within the indoor and outdoor environment. Research focused on early years settings has paid close attention to the outdoor environment and outdoor play in facilitating children's levels of physical activity and active play (Bento & Dias, 2017; Bjørgen, 2016; Broekhuizen et al., 2014; Ng et al., 2020).

Research conducted in Norway showed that most children in kindergarten spent their time in the outdoor environment, engaged in a range of physical activities such as running, playing catch and more contextualised activities, such as climbing onto a knoll and jumping off it (Bjørgen, 2016). In her research Bjørgen (2016), identified that high levels of physical activity are created in certain sections of the outdoor play area, such as a small hill, which was equipped with swings, a slope and a castle.

Bento and Dias (2017) attributed this to the notion that "the outdoors can be described as an open and constantly changing environment, where it is possible to experience freedom, gross and boisterous movement, and contact with natural elements" (p. 157). These spaces were understood to be open green spaces or large gross motor play areas with large play structures (Dinkel et al., 2019). Chapter 3 explores further the elements of the physical elements specific to the early years setting (see

3.6.2 The micro-environment of the early years setting).

Much of the literature points to children acquiring physical activity skills through access to appropriate spaces and a range of resources available within particular environments, including the home and early year environments (Chalke, 2016; Cooper et al., 2010; Copeland et al., 2016; Henderson et al., 2015; Nobre et al., 2022). Researchers such as Bower et al. (2008) identified portable play equipment as contributing to an environment conducive to physical activity. Others such as Trost and Loprinzi (2010) identified positive associations between physical activity and fixed equipment, such as climbing frames. However, at this point there is still limited literature that has investigated aspects of the physical environment that influence physical activity or active play, particularly in early years settings.

Studies so far have found that educational facilities, including the size of indoor or outdoor play space, and the inclusion of natural elements, such as trees, shrubs, water, boulder and sand contribute to children's physical and active play (Dinkel et al., 2019; Herrington & Brussoni, 2015). Furthermore, the amount of fixed equipment, such as swings and climbing frames, has shown to be conducive to children's moderate to vigorous physical activity (Bower et al., 2008; Copeland et al., 2016; Dowda et al., 2004, 2009; Nobre et al., 2022). Research conducted by Copeland et al. (2016) linked a large outdoor environment and the presence of an indoor environment (e.g. a gym) to children's engagement in physical activity.

Further research conducted in this field has confirmed that the physical characteristics of the early years environment make a significant contribution to preschoolers' physical activity participation and affordances (Hinkley et al., 2016; Ng et al., 2020). This is in line with studies by Copeland et al. (2016), Henderson et al. (2015) and Hesketh and Slujis (2015), as well as with more recent studies that confirm that physical activity equipment and resources within early years environments have a significant role in facilitating children's physical activity and active play (Åström et al., 2020; Määttä et al., 2019; Sando & Sandseter, 2020). However, at this point, only a few studies have focused on characteristics present within early years settings that are conducive to children's physical activity and active play participation (Hinkley et al.,

2016; Määttä et al., 2019).

Researchers, such as Dinkel et al. (2019) further found that while open outdoor spaces were conducive to infants' and toddlers' active play, the extent to which children were physically active varied across settings. This was attributed to the idiosyncratic nature of the early years setting and available resources, such as portable play equipment, children's attitudes towards active play and other environmental factors unique to the context. These were understood either to facilitate or to impact negatively on children's active play experiences.

Määttä et al. (2019) found that having a balance of physical activity equipment and physical activity spaces and surfaces was associated with children's increased engagement in active play. Characteristics unique to the setting were trampolines, balance equipment, gym mats, sticks in the gym and having skipping ropes, as well as a mostly hilly terrain on the outdoor playground. Interestingly, having gravel as the terrain in the playground was associated with lower levels pf physical activity. This was attributed to gravel creating a hard surface that presents an uncomfortable play environment for children and that may lead to injuries. Similarly, having a seesaw outdoors was associated with lower engagement in physical activity, as it was understood to be sedentary in nature.

Another body of literature has addressed the affordances within outdoor spaces that support play-based learning (Bento & Dias, 2017) as a form of active play (Dinkel et al., 2019). This includes the presence of natural elements, such as trees and rocks (Ng et al., 2020). Other features of the outdoor landscape, including shrubbery, the availability of trees, stumps, boulders, topographic variation (e.g. mounds and slopes) and open spaces in the kindergarten, are seen as an arena for promoting children's physical activity (Boldemann et al., 2006; Fjørtoft, 2001; Hinkley et al., 2016; K. Spencer & Wright, 2014). This has been attributed to the need for children having to adapt to the diverse natural features, requiring children to apply different fundamental movement skills to overcome natural obstacles such as those mentioned above (Fjørtoft, 2001). Lundy and Trawick-Smith (2020) confirmed that research reinforces that these types of

features, in particular the natural elements of the outdoor environment, offer opportunities for children to engage in physically active pursuits.

Research related to the indoor environment found that having spaces dedicated to physical activity (Cooper et al., 2010; Gray et al., 2015; Sugiyama et al., 2012) and active play (Brazendale et al., 2015) contributed to children's opportunities to be physically active. For example, Henderson et al. (2015) identified having moveable furniture as contributing to children's opportunities to be physically active as physical activity spaces can be created within the indoor environment as needed. What these types of studies have confirmed is that it is important for educators to consider ways in which the indoor space could be used to promote opportunities for active play (Pate et al., 2016; Peden et al., 2017; Sugiyama et al., 2012). Such findings raise the need for indoor spaces to be more conducive to active play (Copeland et al., 2016; Sugiyama et al., 2012) and highlight the importance of making better use of indoor spaces in order to encourage opportunities for physical activity and active play (Copeland et al., 2016; Sugiyama et al., 2012).

Despite extensive research identifying a range of physical elements of the early years setting impacting on children's engagement in and opportunities for physical activity and active play (Hinkley et al., 2016), research shows that the physical environment alone does not necessarily contribute to or facilitate physical activity or active play for three-to five-year-olds (Johnstone et al., 2017). Those children who are naturally active tend to benefit from and make use of environments conducive to physical activity and active play (Sando, 2019). However, many children benefit from further encouragement by significant adults at the setting (Bjørgen, 2016). In summary, the availability of and the access to physical spaces alone does not lend themselves to children being physically active; rather it is the combination of these positive environments with other elements, such as a strong social-emotional bond and support between the educator and the child and also the affordance of the significant time for children to engage in these types of experiences, that best facilitates children engaging in these types of experiences.

A number of studies have sought to determine the environmental factors that influence children's physical activity behaviours (Bjørgen, 2016; Broekhuizen et al., 2014; Tarun et al., 2017), such as playground design (Barbour, 1999; Refshauge et al., 2015), playground markings (Cardon et al., 2009), fixed and portable play equipment and programs (Cardon et al., 2009), natural elements (Boldemann et al., 2006; Cardon et al., 2008; Copeland et al., 2016; Dowda et al., 2009; Gubbels et al., 2012) and weather (Boldemann et al., 2006; Joseph et al., 2019). However, not all factors are recognised as affordances. In fact, some factors may hinder the implementation and integration of active play practices (Joseph et al., 2019; Umstattd et al., 2019).

Gubbels et al. (2012) found that, despite facilities portraying the image of fostering physical activity at first glance, this appearance does not necessarily correspond to the reality. Fixed equipment, such as slides and swings, have been negatively associated with facilitating physical activity owing to their sedentary nature, as children either sit or ride toys. This was further supported by the study by Gubbels et al. (2018), who found that fixed equipment has been linked to children's sedentary behaviours, as these facilities can be used by only a limited number of children at once.

Another study conducted by Copeland et al. (2016) found that certain elements of the physical environment, such as portable and fixed equipment, the size of active spaces and natural elements, were not directly associated with children being engaged in moderate to vigorous physical activity. Copeland et al. (2016) associated this with students being provided with insufficient outdoor time to engange fully with portable play equipment. Equipment availability was also identified as being a potential barrier to children's physical activity as it was incumbent on the educators' decision of whether to make it available to children or not (Ng et al., 2020).

Gubbels et al. (2018) confirmed that certain environmental features of the outdoor environment at the childcare settings benefitted only some of the students. This was attributed to children's physical development. Children under 3 years of age were at the beginning of their gross motor skills development and found it challenging to benefit from accessing physical play structures. Outdoor play equipment features were

therefore identified as a barrier to some children's physical activity as limited access to outdoor natural and portable physical activity equipment led to less active play opportunities and more sedentary behaviors in children under 3 years of age.

At this point, there is limited insight into equipment potentially hindering physical activity in the early years' settings. It is therefore worthy of more research, particularly regarding the influence of the quantity and the type of portable play equipment on affording or limiting opportunities for children's physical activity or active play. Further, with no research so far exploring features of the built environment in early years settings in many Asian countries and contexts, including Colombo, Sri Lanka, studies that explore the contextual factors impacting on elements of the physical environment that significantly impact on physical activity and active play are worth investigating.

2.3.4. Temporal elements that afford or hinder physical activity and active play

Emerging research suggests that temporal elements of the early years learning environment impact on the facilitation of physical activity and active play in early years settings (Gray et al., 2015). Temporal elements of the early years environment are those elements such as the timing of routines, time dedicated to play, the length of routines and transition time. These elements have been identified as impacting on the facilitation of and support for physical activity and active play within early years environments (Henderson et al., 2015; Tucker et al., 2015).

Time spent outdoors has shown to correlate with physical activity levels in preschool children (Henderson et al., 2015). Research by Henderson et al. (2015) found that time spent outdoors is associated with children being more physically active than those children who spent less time outside. A key point emerging from this type of research is that providing children with extended periods of outside play time is significant in supporting children's engagement in physical activity (Kovacs et al., 2021; Tucker et al., 2015). Kovacs et al.'s (2021) research found children to be sufficiently active when physically active outdoors for at least two hours daily. Further research has also confirmed that an increase in outdoor play time is directly linked to children's increased levels of physical activity (Tucker et al., 2015; Vanderloo et al., 2013).

Purposeful planning of children's physical activity and active play as part of the pedagogical curriculum has been associated with increased opportunities for active play (Gray et al., 2015). Research points to the importance of children spending time outside as a means of promoting healthier lifestyles that may contribute to children's well-being and healthy living into adulthood (Bento & Dias, 2017; Poitras et al., 2017). However, this type of research is limited to studies, such as the work of Chow et al. (2015), that reports that, with the exception of structured physical education lessons, music lessons, recess and transition time, children spend a significant amount of time engaged in sedentary experiences. Research has therefore suggested that early years settings may offer opportunities for physical activity and active play throughout the regular school day, in the form of, but not limited to, free-play recess, meal times and other timing related to classroom routines and transitions (Chow et al., 2015).

A study in the United States has indicated that children in child care centres were exposed to only 9 minutes of physical activity per hour, or 27 minutes of moderate to vigorous physical activity (MVPA) per day (Henderson et al., 2015). This was however fewer than the 120 minutes recommended by the United States National Health Standards (Henderson et al., 2015; Lu & Montague, 2016), or than the 180 minutes of physical activity proposed in Australia, Canada and the United Kingdom (Lu & Montague, 2016; 2021). These types of statistics reinforce that opportunities for active play are declining in many early learning services, with some of the factors underpinning this decline being attributed to temporal factors (Doherty & Carlson, 2002; Melman et al., 2007).

Time scheduled for the actual practices of physical activity and active play have been observed to differ among early years settings (Coleman & Dyment, 2013; Copeland et al., 2016; Riethmuller et al., 2009; Tucker et al., 2015; Tucker, 2008). These types of studies indicate that there is great variation on the amount of time that educators planned for children to spend being physically active across settings. Limited time scheduled in the academic day meant that children actually engaged in physical activity well below the physical activity guidelines recommended internationally (Okely et al., 2017; Ross et al., 2020; WHO, 2020).

Another significant element of the temporal environment is time scheduled for and actual practices of physical activity and active play. The scheduling and duration of these types of practices differ significantly among early years settings (Coleman & Dyment, 2013; Copeland et al., 2016; Riethmuller et al., 2009; Tucker et al., 2015; Tucker, 2008), leaving preschoolers well below physical activity guidelines internationally (Tucker et al., 2015; Vanderloo et al., 2013). For example, Copeland et al. (2016) found that, despite most of the 30 preschools reporting the scheduling of two or more outdoor sessions of ≥ 60 minutes daily, in reality the outdoor time offered to children actually occurred less frequently than was originally planned. A study with a representative sample of 6- to 11-year-old children in the United States showed that 42 percent of children met the recommendation for physical activity (Troiano et al., 2008). Similarly, a study aiming to access the variations of objectively measured physical activity across Europe also found that time spent in moderate to vigorous physical activity progressively decreased from 6–7 years onwards (Steene-Johannessen et al., 2020).

2.3.5. Human and social elements that afford physical activity and active play

Previous research in the field of physical activity and active play in the early years has explored a number of contextual elements of the environment, such as the physical environment and the temporal environment, that afford opportunities for physical activity and active play in early years settings (Bento & Dias, 2017; Bjørgen, 2016; Broekhuizen et al., 2014; Gray et al., 2015). However, an element that is often overlooked in research and associated literature related to physical activity within early years settings is the influence of human and social elements. These elements refer to, but are not limited to, the interactions among children, educators, and parents, and between teacher-directed and child-initiated activities. There is some emerging research that has explored the influence of intrapersonal factors, such as children's positive feelings about active play, and other factors, such as inter-personal influences (e.g., cultural and social relationships) and the impact that these types of factors have on children's access to and engagement in active play (Hyndman et al., 2016). Much of the existing research and

associated studies refer to Western contexts (Hinkley et al., 2016; Tonge et al., 2017), with few studies at this point exploring a similar phenomenon in an Eastern context, such as Colombo, Sri Lanka.

Rietveld et al. (2013) identified social affordances as being a "subcategory of affordances, namely possibilities for social interaction offered by the environment" (p. 2). Bjørgen's (2016) study conducted with a kindergarten in central Norway looked at social affordances in terms of how children in their kindergarten environment perceived and used "physical and social invitations and opportunities" (p. 3) in a range of outdoor environments. A number of social elements, such as social interplay, friends and safe environments, were linked to potentially impacting on children's involvement in physical activity, as well as on levels of physical activity (Bjørgen, 2016). She found that social interactions namely, "human interactions in the environment" - "have the greatest influence on the duration and intensity of physically active play" (Bjørgen, 2016, p. 1).

Research that has investigated the influence of supervision of school playgrounds on children's active play has resulted in mixed findings (Cardon et al., 2009; Hyndman et al., 2016). For example, several studies have observed children engaging in active play less frequently when educators were directly supervising the early years playground. This has been attributed to a growing culture of being worried about children getting injured. This culture of "surplus safety" (Hyndman & Telford, 2015, p. 62) reflects adults' concerns over the danger emanating from playground equipment as the cause of a number of child injuries. This reinforces the research conducted by Hyndman and Telford (2015) that showed educators' increased awareness related to the importance of supervision.

Research shows that there is a fine balance between supervision being beneficial for and deterring children's engagement in active play (Nordbakke, 2018; Wijenje & Waithaka, 2018). Similarly, findings also suggest that maintaining a culture of promoting a safe play area for children may inhibit children's active play (Hyndman et al., 2016). This has been attributed to educators' concerns and culture of over-protection, resulting in children losing confidence in their abilities to be physically active that then can potentially impact on their active play behaviour or on their

willingness to participate in active play (Hyndman & Telford, 2015).

By contrast, other studies have found that a higher number of children participated more intensively in active play when teachers supervised the school playground (Hyndman et al., 2016; Willenberg et al., 2010). These studies identified peer and teacher support as facilitators of children's active play within school playgrounds (Hyndman et al., 2016; Toussaint et al., 2020). A number of studies confirmed that children considered social partners and social acceptance as being significant in their engagement in active play (Hyndman et al., 2016; Toussaint et al., 2020).

2.4. Distal factors impacting on physical activity and active play

The final section of this chapter addresses the broader level factors, that influence physical activity and active play, referred to as "macro-environmental factors". " Distal factors 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. 26). Factors impacting on physical activity and active play at the macro-level include examples such as: national early years curricula and policies (Gerritsen et al., 2016), societal beliefs, values and other factors such as media positioning of key issues. Such factors can either afford or limit physical activity and active play in early years settings.

A key factor identified as limiting opportunities for active play within early years settings was that school administrators in many countries have been reducing and/or eliminating active play opportunities during the school day owing to political and national pressure to increase t h e emphasis on academic achievement (Ayala et al., 2013; Chaddock et al., 2012; Dijk et al., 2016; Gunnarsdottir, 2014; Laiho, 2010; Sattelmair & Ratey, 2009). For example, Gunnarsdottir (2014) noted that playschool teachers in Iceland faced a pressure to have school-ready children, requiring learning practices in the early childhood settings to move towards primary school teaching methods. Bipath and Theron (2020) referred to the global trend towards more formal teaching as the "schoolification epidemic" (p. 229). Preparing students for primary

school was associated with the implementation of a prescribed curriculum focused on developing students' academic skills. This was understood to be detrimental to child-centred pedagogy (Bipath & Theron, 2020). Such national pressures related to schoolification are increasingly placing demands on early years educators to introduce and dedicate significant amounts of time to the more formal teaching approaches used in primary education to produce school ready children at the cost of decreased time for active play (Bradbury, 2019; Gunnarsdottir, 2014).

These sentiments were also reinforced by others such as Alcock and Haggerty (2013) who wrote about the globalisation and related economisation of early years education policy (2013) concerns that early childhood education might be at risk of being viewed as a preparatory stage for becoming economically productive, effectively functioning global citizens, with educational goals being increasingly driven by narrow economic imperatives. These concerns related to a growing trend of globalising education, a factor of influence located at the macro-level, have been found to impact on the facilitation of active play practices in early childhood settings.

Accountability pressures exerted from the federal authorities, such as the No Child Left Behind (NCLB) Act (Bassok et al., 2016) and heightened pressure among parents to give young children an academic "edge" (Bassok et al., 2016, p. 2), have further impact on the facilitation of active play opportunities for children in educational settings. The dominant discourse that exists within many educational contexts has been fueled by a common political belief that starting primary education at an earlier age will be beneficial to children's learning and to preparing children for primary education (school readiness) (Gunnarsdottir, 2014). International early years studies highlight related tensions between children having the freedom to pursue their own agendas at their own pace — as traditionally encouraged in play- and interest- based curricula — and busy teachers being pressed to come up with learning goals for accountability purposes (Alcock & Haggerty, 2013). The heightened focus and increased pressure for early year educators to dedicate more attention to academic skills have raised the concern that this may reduce opportunities for active play within the curriculum (Bassok et al., 2016).

Another rising concern found situated more distally, yet still very pervasive in influencing children's active play, is related to concerns over child safety and a trend towards creating a bubble-wrapped society, where the next generation of children are being overprotected (Hesketh et al., 2017; Malone, 2007). Risk aversion was commonly linked to policies around play and requirements for establishing environments understood to be safe, before allowing children to be physically active (Copeland et al., 2012). The general preoccupation with children's safety and the notion of being overprotected, were found to be at the expense of children being physically active (Hesketh et al., 2017). A study conducted by Joseph et al. (2019) found that despite following all safety guidelines at the early years setting being followed, accidents and injuries can easily happen when children are playing outside.

What is becoming apparent is that this fear, created at the macro-level, is reflected in parents' concerns over children's safety (Joseph et al., 2019). This was found to be the case in particular with younger children, such as infants. Parents were often confining their children to cots, highchairs, prams and car seats as a way to protect them (Brown, 2006). This notion of concern created at the macro-level was found to impact on parents, who then brought forward their concern at of the early years setting (Brown, 2009, 2012).

2.5. Summary of the chapter

This chapter has highlighted the considerable diversity and variability in determinants and contextual elements that collide within educational and early years settings, impacting on, affording or limiting children's opportunities to be physically active, or to engage in active play (Bento & Dias, 2017; Bjørgen, 2016; Copeland et al., 2012; Lundy & Trawick-Smith, 2020). Factors impacting on opportunities for active play included but were not limited to educator's understandings and beliefs related to active play, physical features of the early years setting, or other elements of influence located across systems. Literature points to a positive association between educators' understandings, beliefs and values and their instructional practices (Derscheid

et al., 2010; Gunnarsdottir, 2014; Lynch & Soukup, 2017; OECD, 2009; Stipek et al., 2001). Research conducted does indicate that educators' perceptions and valuing of physical activity significantly influence the integration and implementation of active play practices within early years settings (Carson et al., 2015; Janssen, 2014; Kuzik et al., 2015; Lu & Montague, 2016; Spencer et al., 2019; Tandon et al., 2015).

With the construct of the belief system being complex and context-bound and influencing classroom practices (Hustedt et al., 2018; Kaymakamoğ lu, 2018), more research is needed that investigates early years educators' understandings, beliefs and values about physical activity and active play in early years settings. These findings were relevant in determining the second research question of this study and the goal of contributing to a more profound and contextualised understanding of the physical, temporal and human elements of the environment that afford active play and active play practices in early years settings in Colombo, Sri Lanka.

Research so far that has investigated early years educators' understandings of the discourse of active play concluded that there is currently no clear or consistent definition of the term 'active play' available. This in turn significantly influenced the amount of research dedicated to the field of active play facilitation in early childhood education (Active Play report, 2016). However current definitions do not fully capture or appreciate the complexity of active play in early years education. Through the research outlined in this chapter, as well as through the gaps identified in these studies, it is clear that, while there has been commendable and significant research conducted to date that has explored topics related to physical activity and active play, there are also areas of research that would benefit from further attention.

At this point, there is limited descriptive or qualitative information about children's opportunities to engage in active play within early years settings (Brown et al., 2009; Hinkley et al., 2016). There is also a paucity of research that has focused on investigating the complexity of physically active play facilitation, while taking into consideration the interconnected elements and processes colliding within settings, such as early years educators' decision-making and considerations of contextual factors

situated at a more distal level of influence. More research is needed within Colombo, Sri Lanka early years settings that focuses on providing a deeper understanding of early years educators' insights and their expertise regarding the complexity of integrating and implementing active play practices and unplanned active play opportunities within early years settings in Colombo, Sri Lanka (Research Question 3).

Chapter 3 now focuses more closely on the rationale for using a social ecological model. Attention is given to exploring the evolution of ecological models over time and across fields of research to appreciate better and to acknowledge the adopted and adapted model used for this study. The next chapter focuses in more detail on how using a social ecological model has helped to understand better the range of factors impacting on educators' understanding, beliefs, attitudes, values and practices of physical activity and active play offered in early years settings in Colombo, Sri Lanka.

CHAPTER 3: THE EDUCATOR MICRO-CONTEXT MODEL (EMC) MODEL

This study was framed within an interpretivist paradigm, with the intent of gaining an in-depth understanding of the multiple factors impacting on early years educators' understandings, beliefs and practices related to physical activity and active play within early years settings in Colombo, Sri Lanka (see related goals in Chapter 1). These factors were contextual and located within multiple environments, as well existing temporally through and across time. Given this positioning, Chapter 3 outlines a social ecological model that has been adopted across a range of disciplines as an effective tool in helping to make sense of factors located within contexts, and how these factors impact on behaviour. This model has been adapted in order to support the goals and intent of this study.

The chapter highlights key terms and definitions, and provides insights into the evolution, application, and interpretation of ecological and social ecological models over time. A social ecological model (SE) model, with a particular focus on model adaptations suitable for understanding factors impacting on health behaviours is then outlined. Finally, a rationale is provided for the creation of a social ecological model, the Educator Micro-Context model. The purpose of this model was to support a greater understanding of contextual factors located both at an individual level and more broadly at social, institutional, and cultural levels that impact on early years educators' understandings, beliefs and practices related to physical activity and active play in early years settings in Colombo, Sri Lanka. Features of the Educator Micro-Context model (EMC) model and how the model is employed are then unpacked.

3.1. Defining ecological and social ecological models

Behavioural settings are generated by combined actions of individuals and the milieu features (or affordances) located within ecological structures (behaviour settings) (Barker, 1968; Barker & Wright, 1955; Heft et al., 2014). Ecological models have evolved and been utilised across a range of fields to help to make sense of and to understand better the interrelationship between organisms and contextual systems and the

complexity of situatedness (Stokols, 2013). Ecological models have allowed us to account for the spatio-temporal transactions that exist within and between settings and their influences over behaviour.

The term "ecology" can be tracked back to theorists such as Darwin (Darwin, 1859), Haeckel and Lankaster (Haeckel & Lankaster, 1876) and Clements (Clements, 1905), where ecology was understood to be the study of the interrelationship between organisms and environments. Early ecological studies were conducted by bioecologists who focused on plant and animal habitats, exploring processes of adaption and natural selection (Clements, 1905; Haeckel & Lankaster, 1876). Alongside these types of studies, other pioneers of ecological models, as early as 1925, adopted ecological models to engage in the study of human communities (Barker, 1968; Barker & Wright, 1955). The intent of these models was to support the understanding of socio-material and socio-temporal forces at play in specific environments (Barker & Schoggen, 1973). With a growing concern over social and environmental issues, early ecological models were embraced in a range of fields, such as biology, sociology, psychology and architecture. The intent of these types of studies was to employ an ecological model to approach problems of "pollution, resource depletion, overpopulation and crime" (Stokols et al., 1975, p. 34) at both the macro and the micro-level.

Ecological and social ecological approaches were similar in nature, as they appreciated ecological and environmental elements as significantly impacting on the phenomenon. The Russian-born American developmental psychologist, Urie Bronfenbrenner (1979), significantly contributed to the development of ecological analyses of human development. While the early ecological model by Bronfenbrenner (1979) placed more emphasis on naturalistic observations of the environmental setting, social ecology placed equal emphasis on the natural and constrcuted environment (Stokols, 1975). The social ecological approach more closely focused on using an integrative and interdisciplinary approach that acknowledged the role of social, psychological, institutional, and cultural elements and their impact on human-environment relationships (Stokols, 2013).

However, despite some features of these models being similar in nature, social

ecological models highlight a "multidimensional structure of human environments" (Stokols, 2013, p. 3). These models reflect the dynamic and reciprocal nature of forces that occur, within and among an identified phenomenon that impact on physical (e.g., architecture), social (e.g., culture) and individual elements found within the context. For the purpose of this study when referring to an ecological model in context, reference is made to Bronfenbrenner's (1979, 2006) human ecological model, which evolved out of his early ecological and bioecological model of human development (see Figure 2 Bronfenbrenner's (1979) Ecological Model of Human Development).

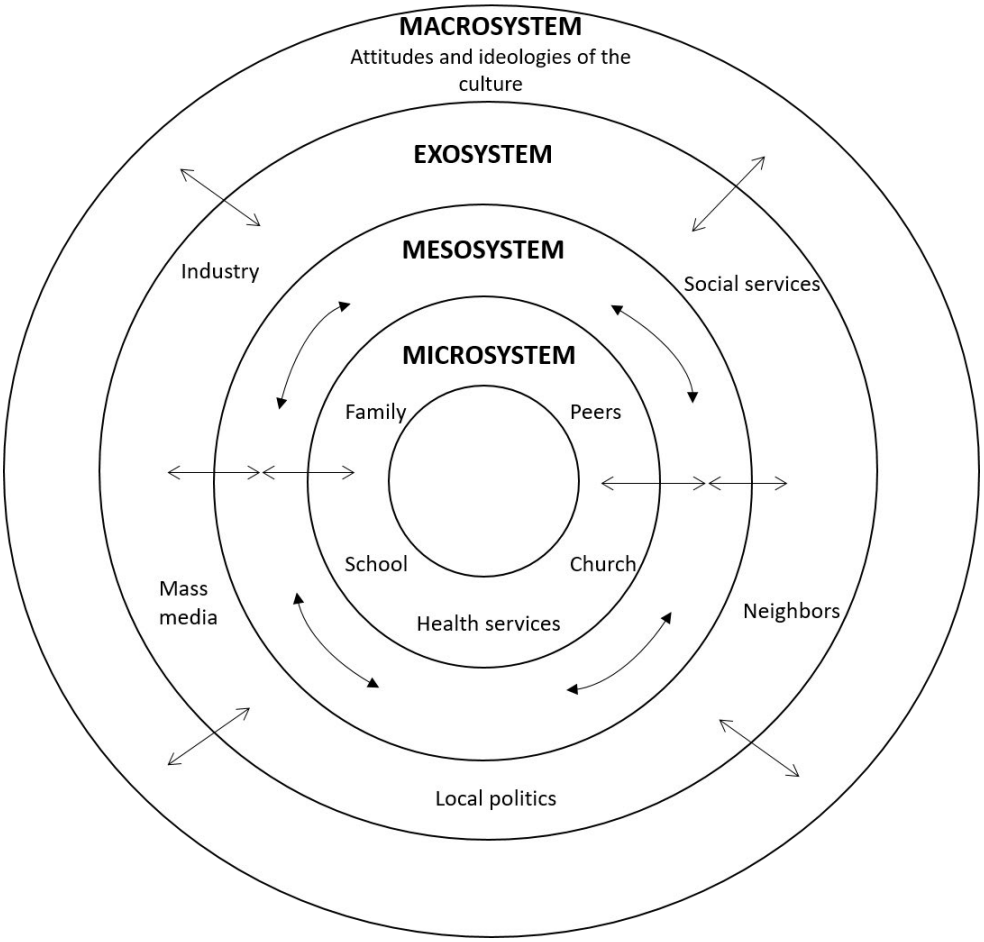
3.2. The evolution of ecological and social ecological models

Over time researchers have adopted and adapted existing ecological models (Bronfenbrenner, 1979; Brown, 2012; Welk, 1999). This has led to the terms 'ecology' and 'social ecology' being used alongside each other and interchangeably to describe models that have focused on exploring context-bound elements impacting on a phenomenon. Attention is now be focused on clarifying the underlying meaning and rationale behind several of these models, as well as on the makeup of their underpinning and complex structures.

To gain a better understanding of human development Bronfenbrenner viewed individuals as located and moving within a system, made up of multiple layers (micro-, meso-, exo-, macrosystem), with a range of factors located within these systems that either directly or indirectly impacted on the individual. Bronfenbrenner's intention was to introduce the ecological theory as a new theoretical perspective to understand human development comprehensively, by acknowledging the entire ecological systems in which growth occurred (Christensen, 2016).

Figure 2

Bronfenbrenner's (1979) Ecological Model of Human Development



In subsequent iterations of his model, Bronfenbrenner (1979) noted that these multivariate systems were composed of several interconnected environments, depicted as a "set of nested structures, each inside the next, like a set of Russian dolls" (Bronfenbrenner, 1979, p. 3). Within and across these levels, Bronfenbrenner found that the bidirectional impact on recurring patterns of activity occurred over time (chronosystem) (Bronfenbrenner & Ceci, 1994). These bidirectional forces that occur and exist among individuals, and between individuals and the environment, are important to consider in order to better understand better the interconnectedness and key interrelationships among factors of influence across systems.

Further, Bronfenbrenner acknowledged that changes in the developing human being and in the properties of the immediate environment exert reciprocal forces

impacting on the human development of the individual (Bronfenbrenner, 1979). Bronfenbrenner (1979) reinforced that "human development takes place through processes of progressively more complex reciprocal interaction between an active, evolving biopsychological human organism and the person, object, and symbols in its immediate environment" (p. 38). The notion of the complexity of context and the evolving nature of individuals within place and space and over time are important to consider if the intent is to seek to understand how various systems interact with one another and impact on individual behaviours.

Bronfenbrenner extended on earlier theory by continuously adapting his ecological framework until his death in 2005. The bioecological model reflected his refined emphasis on the combined biological and psychological makeup of the person being an essential element impacting on human development. Psychological processes, such as a person's perception, thinking and learning were seen as being affected by the immediate physical and social environment surrounding the individual (Bronfenbrenner, 1979). These refinements of thinking about ecological models and their purpose are important if the goal is to understand better the context in which a phenomenon is located.

Over the years, researchers such as Bowes and Hayes (1999) have adapted Bronfenbrenner's model and added further elements to help to make sense of human behaviour or to seek to understand a phenomenon better (see Figure 3 Ecological Model adapted by Brown, (2006) from McLeroy et al. (1988). Bowes & Haye's adaption of Bronfenbrenner's model of the ecology of human development). Their refinements focused on considering individual characteristics, such as interpersonal (relationships between two people) and intrapersonal (occurring within the mind or self). These characteristics were understood to impact on the individual and on the various systems within which individuals interact. Consideration of these types of systems is important to gain a greater appreciation that the impact of factors situated at the individual level and close to an individual has on behaviour.

It took the efforts of pioneers in social ecological research, such as Stokols

et al. at the University of California in the 1970's to focus greater attention and emphasis on the social elements located within society, and on their influence on human behaviour (Binder, 1972). These researchers moved beyond considering biological and geological processes of human behaviour, with application and exploration of these processes with phenomena situated in a range of disciplines such as sociology, education, and health (Stokols, 1975). While they did not refer to an actual model, they did address and provide some of the earlier social ecological considerations in terms of individual and social factors. More particularly, attention was given to developing foundational ecological frameworks to explore how the effects of physical and sociocultural surroundings impact on human behaviour (Stokols, 1975).

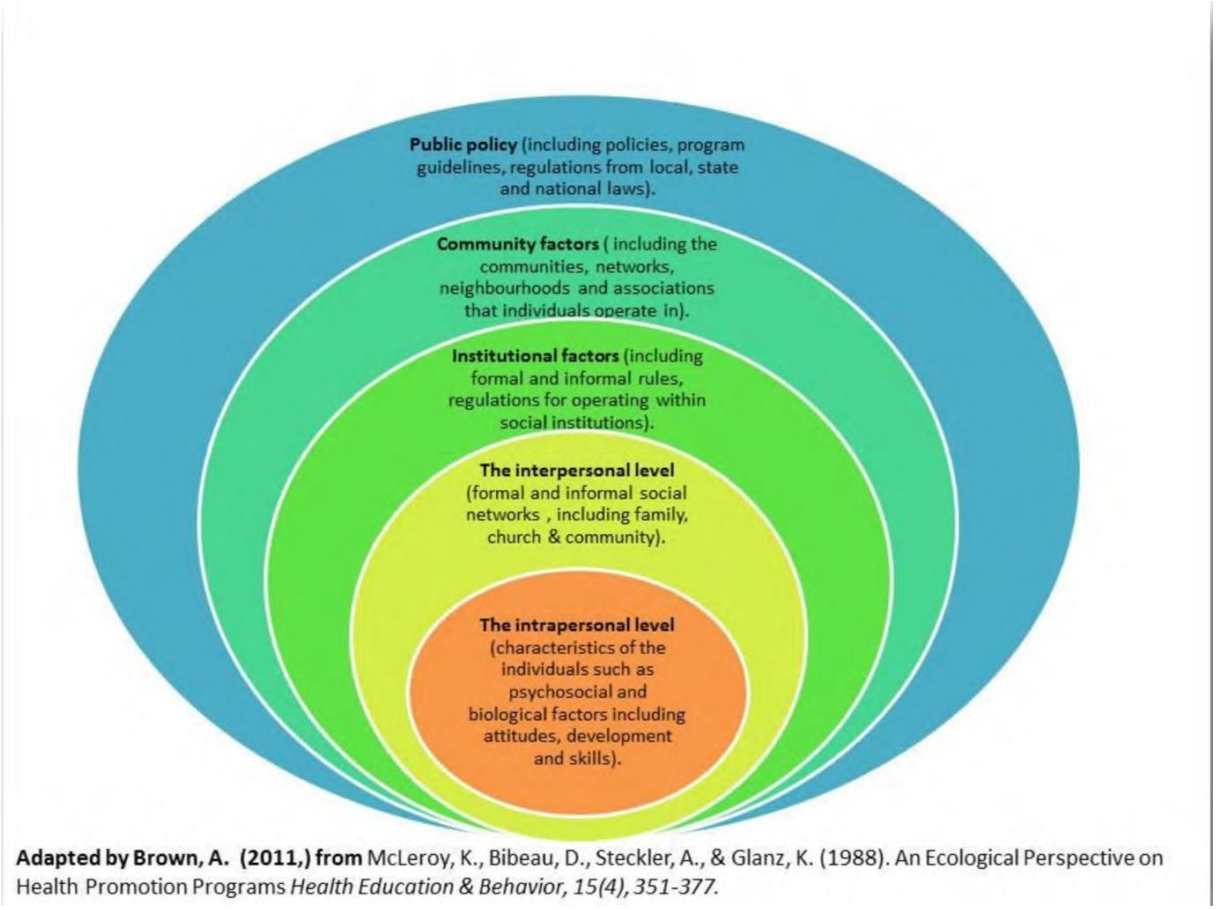
Later, Stokols (1996b) focused efforts on unpacking aspects and considerations behind the conceptual thinking of social ecology and introduced a social ecological model, initially applicable in the field of health promotion (Jamner & Stokols, 2000). Stokols (1996b) offered a "theoretical framework for understanding the dynamic interplay among persons, groups and their sociophysical milieus" (p. 283). The rationale behind the development of the model was to attempt to define more clearly the theoretical foundations or conceptual thinking behind the model. This included focusing attention on the dynamic interplay among context-bound factors, referred to as reciprocity (bidirectional forces between the individual and the environment) in efforts to help to make sense of the mutual influences exerted by others and the environment on individuals and behaviour.

Over time, there were examples of numerous researchers from different disciplines who saw value in existing models and who chosen to adapt or modify existing models for a range of purposes (Brown, 2012; DeVries, 2003; Shapira Lishchinsky, 2017). For example, McLeroy et al. (1988) employed an SE model to give attention to the social and organisational contexts impacting on health-related behaviours. McLeroy et al. (1988) explored ways in which to improve the health and quality of life of elderly people living in a nursing home. They noted that, in order to improve and promote "the health and quality of life of nursing home residents"

(McLeroy et al., 1988, p. 77), it was necessary to understand the phenomenon of health from a broader, more holistic perspective. McLeroy et al. (1988) added a heightened focus on the importance of level-specific influences. This included interpreting the concept of health promotion by considering changes at the micro- and macro-levels, and by acknowledging the diversity of target groups, such as policy makers and providers. These level-specific influences were understood to impact on the health behaviour of elderly people and required intervention strategies at each level of influence (intrapersonal, interpersonal, primary groups, institutional, community factors).

Figure 3

Ecological Model adapted by Brown, A. from Mc. Leroy et al. (1988)



Adapted by Brown, A. (2011,) from McLeroy, K., Bibeau, D., Steckler, A., & Glanz, K. (1988). An Ecological Perspective on Health Promotion Programs *Health Education & Behavior, 15(4), 351-377.*

Others, such as Brown (2012) chose to combine and build on existing models, such as Bronfenbrenner's bioecological model (Bronfenbrenner, 1979) and Stokols et al.'s social ecological model (Stokols, 1992, 1996a). Brown (2012) chose to use a social ecological model in order to look at "social and environmentally patterned exposure

of health behaviours" (Brown, 2012, p. 89). The intent behind these efforts was to understand better the factors that exist, particularly at the micro-environmental level (a term that Brown developed to explain the duality of factors that exist among child/parent/family – closest to the phenomenon), that afford or inhibit the active play behaviours of children within the home environment. Brown (2012) reinforced that the value of adapting a social ecological model helped to support a more finely grained investigation of the environment and of the behavioural transactions that occurred between and within systems, particularly between the parent and children with the milieu of the physical environment.

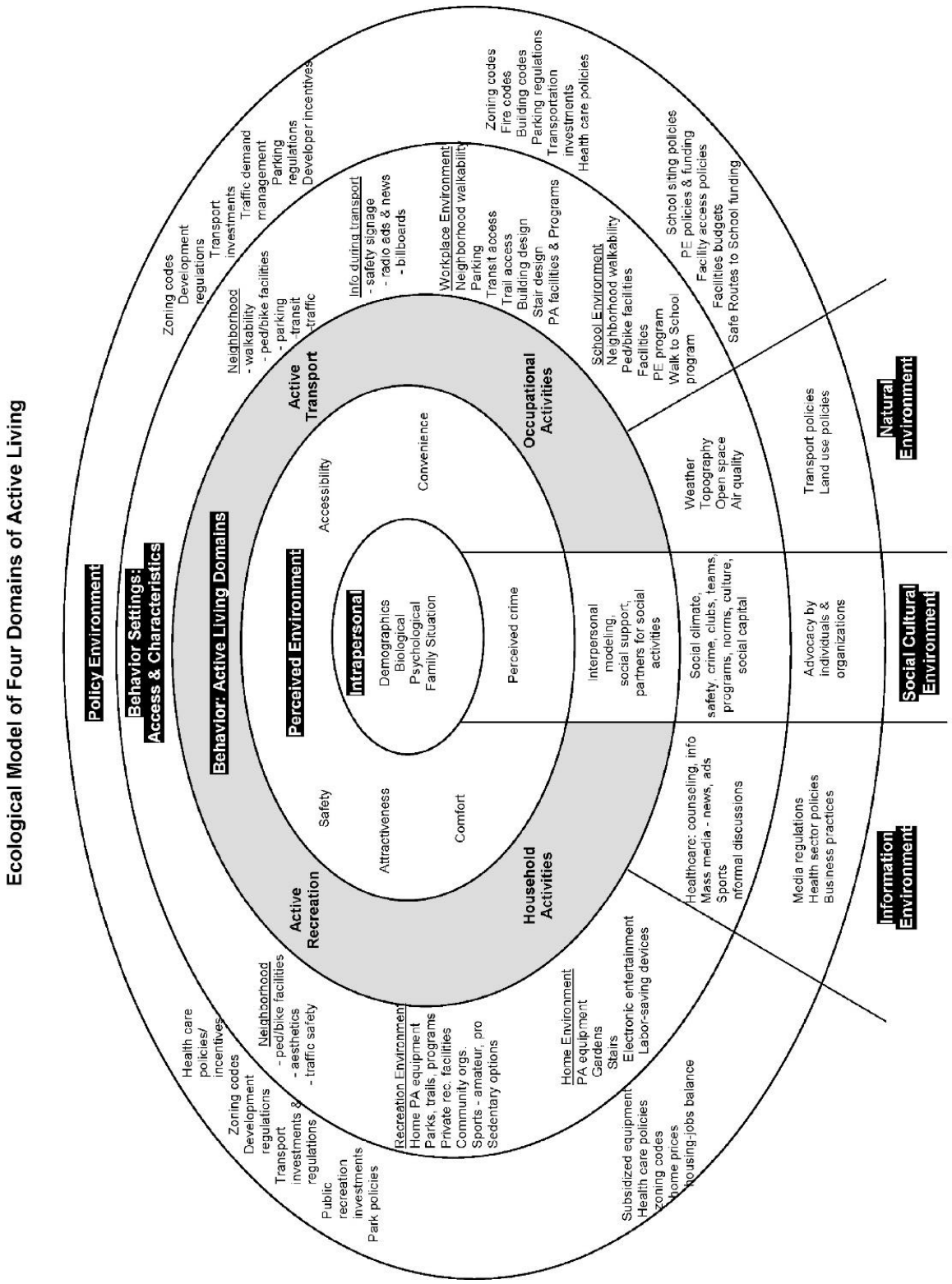
The value of employing an ecological or social ecological model in the field of health promotion stems from the desire to understand comprehensively health behaviours and approaches to health promotion, as well as the multiplicity of factors that exist close to the individual, and more broadly impact on behaviour and practice. Instrumental in the development of the social ecological model in the field of health and health promotion was Stokols (1992, 1996a) and later with colleagues such as Jamner (2000). This initial seminal work, pioneered by Stokols and his colleagues went back as far as 1975 (Stokols, 1975), and reinforced the interplay between individuals and their environments – in particular, the "interrelations among environmental conditions and human behaviour and well-being" (Stokols, 1996a, p. 285).

Over time Stokols and his colleagues continued to refine their social ecological model in efforts to capture the dynamics of health and strategies to promote the health of the individual (see Figure 4 Sallis' Ecological model of the four domains of active living). Stokols proposed that four domains of active living should be "based on an understanding of the dynamic interplay among diverse environmental and personal factors" (Stokols, 1992, p. 7). The complexity of the environment was seen as being influenced by an array of characteristics, attributes and features ranging across "physical, social, and cultural dimensions" (Stokols, 1996a, p. 285), and impacting on the health and wellbeing of the individual over an extended period of time. Further, the compatibility between the individual and their environment was understood to be an important indicator and predictor of a person's wellbeing. Finally, Stokols (1992)

considered the dynamic relations between people and their environments a significant component that impacted from within an environment (bidirectionally between the individual and the environment).

Figure 4

Sallis' Ecological model of four domains of active living



Sallis JF, et al. 2006.
Annu. Rev. Public Health 27:297–322

A growing interest in using social ecological models in the field of health promotion and intervention programs (Stokols, 1996) shifted the focus from an individual oriented analysis towards exploring health behaviours from a broader community perspective. This new focus gave further consideration to the impact of the environment in fostering collective well-being and behaviour (McLeroy et al., 1988; Stokols, 1996a). For example, McLeroy et al. (1988) adopted a social ecological model for the purpose of giving greater attention to individual and social environmental factors in consideration of and approaches to health promotion, reflecting the bidirectionality that exists between the environment and the individual. This model (McLeroy et al., 1988) then moved beyond Bronfenbrenner's (1979) focus on four systems (micro-, meso-, exo-, macrosystems) to one that referred to five levels of influence on the individual, these being: intrapersonal and interpersonal factors; organisational influences; and factors related to community and public policy (see Figure 5 Socio-ecological model, adapted from McLeroy et al. (1988). These factors and inclusions drew further attention to phenomena and behaviour existing within a multiplicity of systems, as well as the importance of consideration being given to the context-bound nuances that exist for individuals within these systems.

Figure 5

Socio-ecological model. Adapted from Mc Leroy et al. (1988)

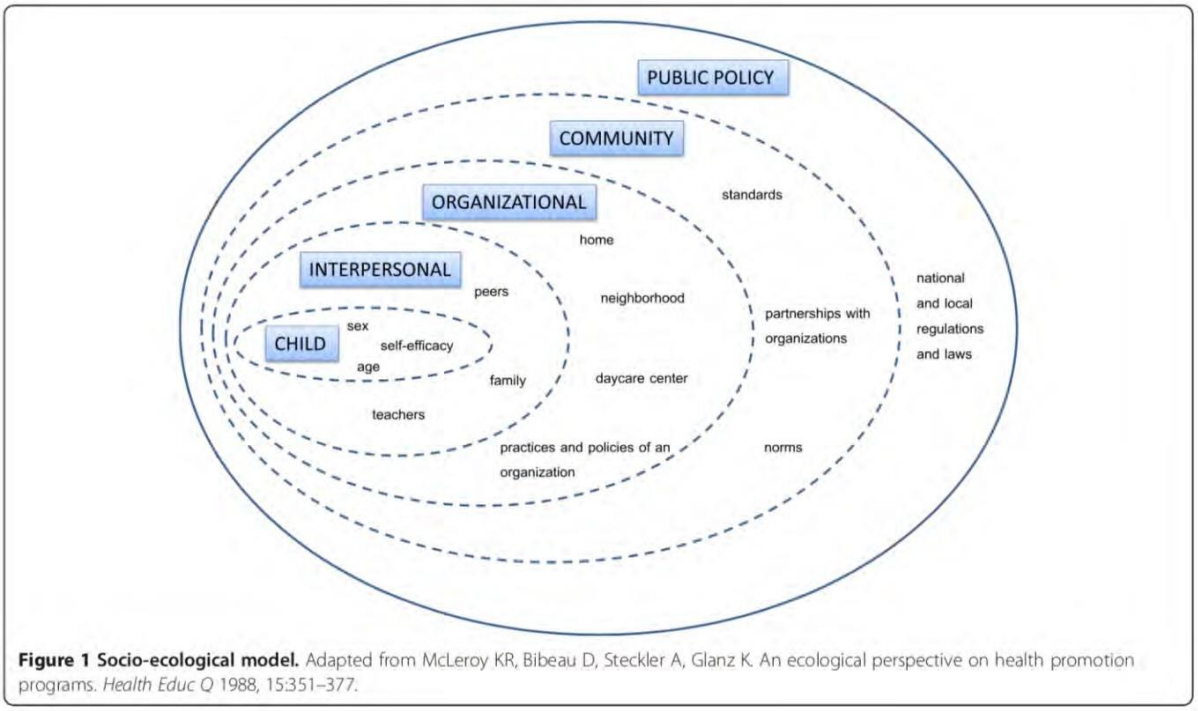


Figure 1 Socio-ecological model. Adapted from McLeroy KR, Bibeau D, Steckler A, Glanz K. An ecological perspective on health promotion programs. *Health Educ Q* 1988, 15:351–377.

Since then, other researchers, have found social ecological models to be of value, particularly in terms of efforts to understand better the determinants impacting on health behaviours across related disciplines (DeVries, 2003; Golden & Earp, 2012; Owen & Fisher, 2008). The evolution and adoption of ecological and social ecological models over time reflect not only the attractiveness of these models for use in various fields, but also the adaptability of these models to serve a particular focus, function and/or interest for research.

For example, Mutumba and Harper (2015) used the concepts of Bronfenbrenner's (1979) multisystem ecological model to identify risk and protective factors in mental health diseases for sexual minority youth at different ecological levels. They found that English-speaking Caribbeans were affected by a variety of interpersonal and intrapersonal factors, such as genetic factors, psycho- physiological stress responses, gender, family, poverty and early exposure to negative environments, that impacted on adolescent mental and physical health. Another study conducted by Aston (2014) also employed Bronfenbrenner's (1979) ecological model to gain a better understanding of adolescents' views about mental health promotion in secondary schools in the United Kingdom, at a micro-, meso- and macrolevel.

There is also evidence of a range of studies that employed ecological and social ecological models to target factors impacting on specific phenomena. For example, Grant and Guerin (2014) employed an ecological model to explore mental health related outcomes, such as parenting capacity (Grant & Guerin, 2014). Others, such as Hong et al. (2010) used an ecological model to explore factors associated with school shootings. Finally, a study conducted by Campbell et al. (2009) employed an ecological model to explore factors, such as the victim's age, ethnicity, and prior relationship with the assailant, in order to predict sexual assault prosecution outcomes. The emergence and development of the specific model to investigate the phenomenon of active play, and the factors that impact on the facilitation of and support for active play from within the idiosyncratic nature of early years settings in Colombo, Sri Lanka were inspired by these types of earlier efforts and in particular by the adaptability of using a social ecological

model. The rationale behind and features of the model are now outlined and unpacked.

3.3. The rationale for using a social ecological model

As outlined earlier in Chapter 1, early childhood education (ECE) is facing a global concern in terms of many young children attending these settings (catering to three to five-year olds) not obtaining the recommended levels of physical activity (Lu & Montague, 2016; WHO, 2019, 2020). Although research reinforcing the health consequences of both physical activity (Timmons et al., 2012; Pfefferbaum & Van Horn, 2022) and sedentary behaviours (LeBlanc et al., 2012; Pfefferbaum & Van Horn, 2022) in preschoolers is well documented (Coleman & Dyment, 2013; Hesketh & Slujis, 2015; Lu & Montague, 2016), at this point there are limited descriptive studies that have investigated the association between the early years settings and their direct or indirect influence on active play.

For the purpose of this study the intent of a social ecological model was to support the understanding and analysis of factors that afford or limit children's physically active play behaviours within early years settings, and whether particular contexts, such as Colombo, Sri Lanka, nuance these factors. Further, the intent was that the adaption and adoption of a social ecological model would help to elucidate elements impacting on early years educators' decision-making about physical activity and active play practices in early years settings. The model also had to account for the multiple idiosyncratic and contextual factors that exist within each early years setting, and that impact on early years educators' understandings, beliefs, and practices, as well as on children's opportunities for active play.

As such, a social-ecological model was considered valuable in understanding the pervasiveness of these factors. The decision was made to adapt further a social ecological model in efforts to help to make sense of a range of factors unique to particular early years contexts (contextual nuances), that directly as well as indirectly impact not only on educators' decision-making but also on the early years active play environments that were afforded. As early years settings are influenced not only by determinants impacting from within the micro-system, but also by a complex range of interrelated systems,

including the meso-system, the exo-system, and the macro-system (Bronfenbrenner, 1979), consideration of the adapted social ecological model also needed to support an understanding of the bidirectional forces among individuals and between individuals and the environment. The model needed to also consider the interconnectedness of social, cultural, and environmental factors influencing individuals within each particular micro-environment that impacted on the facilitation of and support for active play in early years settings. In this study the adapted social ecological model focused on Colombo, Sri Lanka (Lobstein2004; Schneider & Stokols, 2000).

3.4. Social ecological models and their value in understanding physical activity, active play and educator behaviours

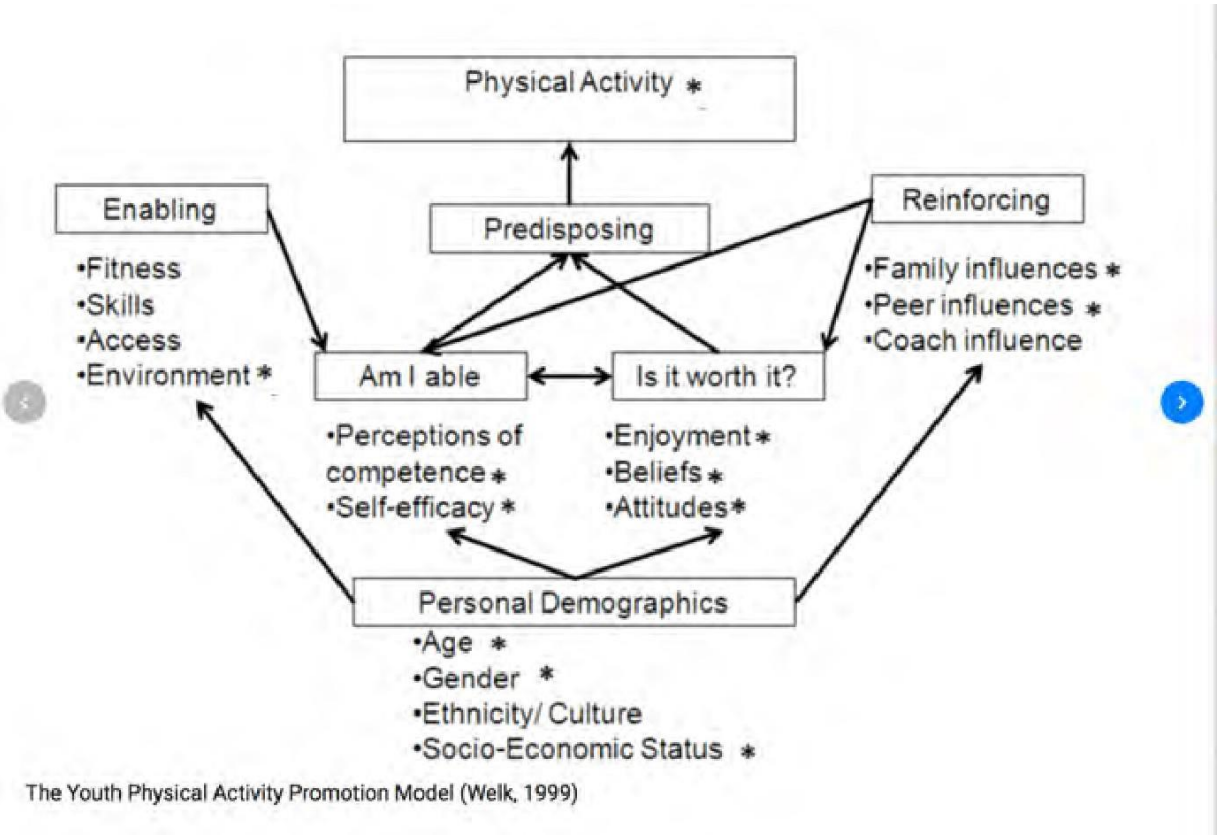
Research conducted to date has emphasised that the underlying premise for successfully employing a social ecological model in the field of health promotion lies in providing a tool that helps to make sense of and appreciate the impact of multiple environments on the health and health behaviours of individuals. What is evident in these models is the value placed on identifying the multiple layers of influence on a phenomenon found within these complex systems. This same focus is also of importance when seeking to explore factors impacting (either affording or limiting) on children's physical activity behaviours across multiple systems (micro-, meso-, exo-, macro-systems) if the outcome of such an investigation is to help children to reach the required health outcomes needed to build long-term health benefits that track into adulthood (Brown, 2009b; Salinas-Rodríguez et al., 2022; Stokols et al., 2003). This notion of the complexity of context was also important in developing a model for this study that sought to understand how factors located within the various layers of the system impact on the educators' understandings, beliefs, and practices in relation to faciliating active play environments and experiences for young children.

Social-ecological models, such as that of Welk (1999), were found to be of value for appreciating and raising awareness of unique developmental, psychological, and behavioural characteristics impacting on physical activity. With few theoretical models

specifically developed for children, the social-ecological model provided by Welk (1999) (see Figure 6 Welk's Social ecological model on physical activity behaviour) proposed a conceptual model of physical activity promotion with the goal of helping to understand better the multiple factors (the unique developmental, psychological, and behavioural characteristics of children) influencing on physical activity behaviour in children. Welk's (1999) Youth Physical Activity Promotion Model (YPAP) was used to appreciate that a "bottom-up" approach (p. 7) approach would be beneficial in acknowledging the determinants impacting on school-age children's (elementary, middle and secondary school) physical activity behaviour.

Figure 6

Welk's Social ecological model on physical activity behaviour



The Youth Physical Activity Promotion Model (Welk, 1999)

In developing a model for this study, it was important to reflect the approach adopted by Welk (1999), in relation to inclusion in the model for the ability to explore and identify a range of multi-factorial determinants. In this study the model was adapted to focus on those multi-factorial determinants that impact on the early childhood educators'

lived experiences, understandings, beliefs, and practices related to physical activity and active play, and on the impact that these characteristics have on their behaviours and curriculum choices in relation to supporting active play with young children in the classroom. Further, taking inspiration from Welk's model (1999), it was important that these factors be explored and viewed holistically as part of an interrelated system where factors are influenced from multiple levels and environments that directly and indirectly then influence children's physical activity and active play behaviours. Reciprocity among multiple factors and at multiple levels of influence (micro-, meso-, exo-, macro-systems) was a key concept and feature of inclusion in the development of a model for this study, particularly in relation to ways in which unique features and characteristics of early years settings could be accounted for in terms of their potential to influence on educators' active play practices.

In a study conducted by Brown (2012) (see Figure 7 Brown's example micro-environment of a family home), using a social ecological model was understood to help to explore a range of factors that impacted on parents' decision- making for supporting and instilling active play behaviours in their young children within the home environment. For Brown (2012), the value of employing a social ecological model (see Figure 8 Brown's PMEM Model of the Calming Family) lay in its being an effective tool for helping to make sense of the influences of the "family structure, social-demographical influences and the family home on children's physical activity and sedentary behaviour" (Brown, 2012, p. 85). Brown (2012) concluded that further exploration was necessary to understand the significant role that parents have in "instilling essential behaviours necessary for long-term wellness, eating and physically active behaviours – particularly through a 'strengths-based perspective" (p. 74).

An essential element of the comprehensive social-ecological model developed by Brown (2012) that was also relevant to this study was to understand the temporal elements that impact on the individual and their behaviour. While Bowes and Hayes (1999) referred to the chronosystem, Brown (2012) identified elements of time and offered temporal considerations as part of her PMEM model, such as life experiences "that occurred throughout and across the life-course" (Brown, 2012, p. 97) (see Figure 7

Brown's example micro-environment of a family home). These considerations regarding the temporal environment were also important to consider the inclusion of the model for this study. The purpose was to acknowledge elements related to time that influence educators' understandings, beliefs, attitudes and practices related to active play throughout and across systems (such as time of the day, timetable, time of the year).

Figure 7

Brown's example micro-environment of a family home

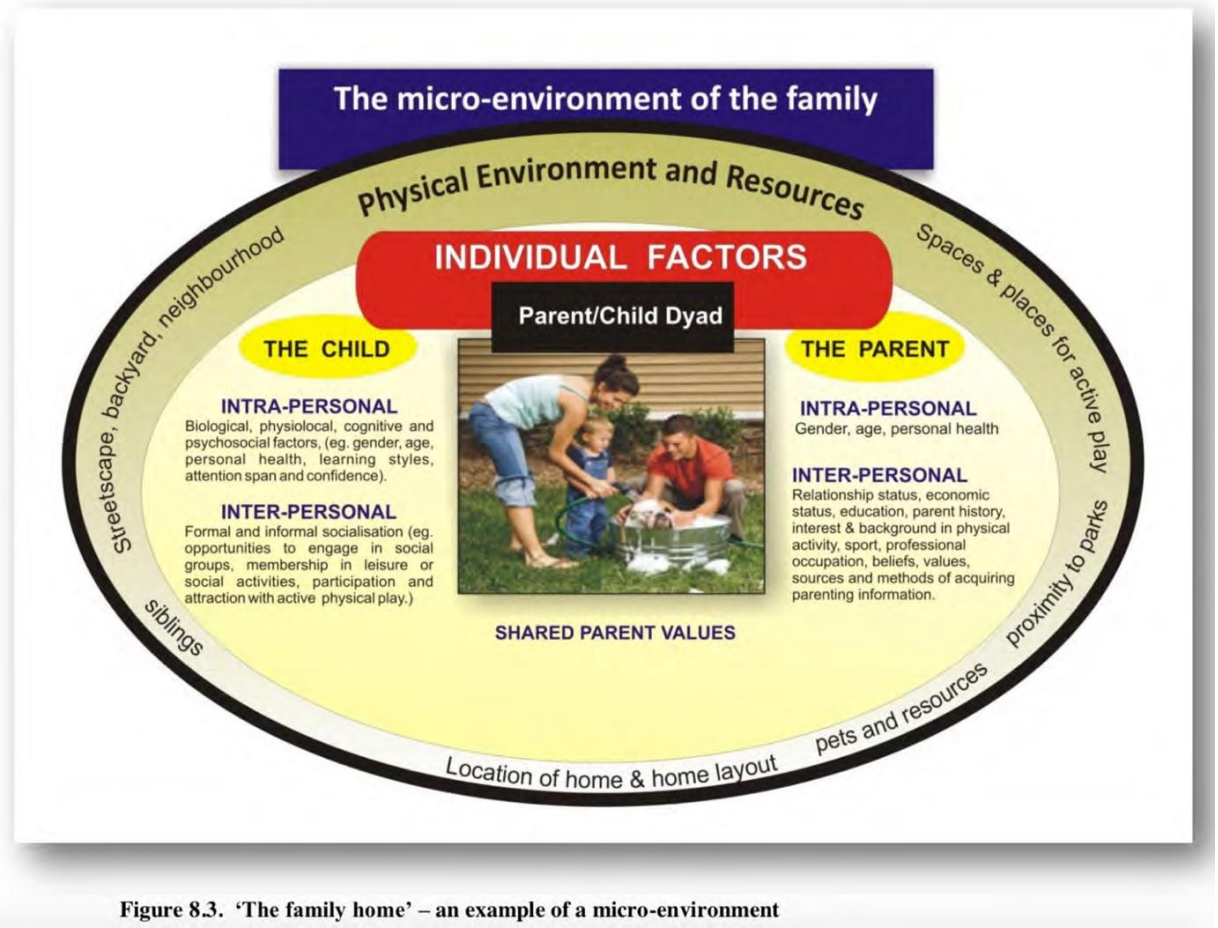


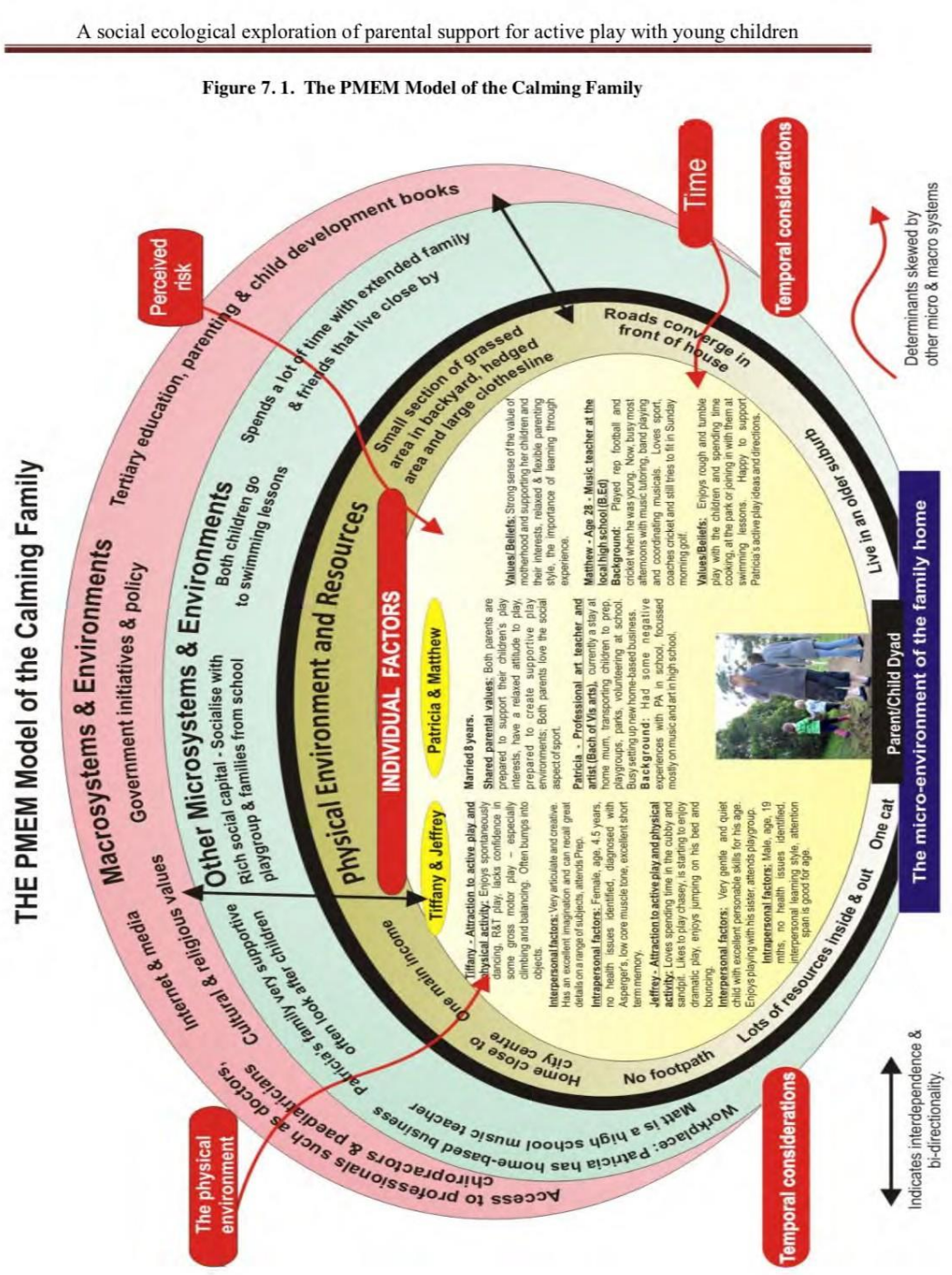
Figure 8.3. 'The family home' – an example of a micro-environment

This approach was understood as a shift away from a focus on the problems and failures in people, to one that acknowledged a unique set of strengths and abilities present in every individual, which could be used to overcome and solve challenges (Xie, 2013). While Brown (2012) viewed parents as significant adults exerting a significant impact on children's physical activity behaviours within the home environment, from a strengths-based approach, this study worked within a similar

paradigm to explore the vital role that educators have in impacting on affordances for active play opportunities and environments for young children aged 3-5 years.

Figure 8

Brown's PMEM Model of the Calming Family



Another quantitative study conducted by Essiet et al. (2016) employed a social ecological model to predict physical activity behaviours among 342 first- year undergraduate university students from the University of Uyo, Nigeria. They categorised data from the study by identifying the multiple layers of influences impacting on students' physical activity, including factors of the individual, the social environment, the physical environment, and distal factors related to factors such as politics and policy. A key learning from Essiet et al.'s study that led to consideration of its inclusion in the model for this research was a heightened focus on the influence of physical environmental factors, in particular the availability of indoor and outdoor school facilities, and perceived elements of safety throughout the regular school day.

To date, research in relation to physical activity and active play has primarily focused on primary and secondary years teachers, showing a positive association between educators' understandings, beliefs and values and their instructional practices (Derscheid et al., 2010; Gunnarsdottir, 2014; Lynch & Soukup, 2017; OECD, 2009; Stipek et al., 2001). However, limited attention has been given to early years educators (Bhatta et al., 2014; Copeland et al., 2016; Copeland et al., 2012; Gehris et al., 2015), and to acknowledging the importance of the context as impacting on educators' beliefs, understandings and practices related to physical activity and active play in early years settings.

Given this, it was important that the model developed for this study supported efforts to gain insights into the idiosyncratic nature of early years contexts and educators beliefs and behaviours in order to understand better the factors that impacted on the types of affordances of and barriers to their support for young children's engagement in active play within early years settings. The adaptability of the social ecological model and the strong rationale for its value in investigating contextual factors impacting on physical activity and active play behaviours across systems and over time were evidenced in the range of studies and examples highlighted in earlier sections of this chapter. These features have made the SE model a very attractive approach for this study as a tool to understand better elements impacting on educators' understandings, beliefs, decision-making and practices related to physical activity and active play

within early years settings in Colombo, Sri Lanka.

The model for this study needed to be robust enough to account for the factors located within the micro-environment that impact on educators' beliefs, understandings and perspectives, as well as for the unique features and characteristics of the early years contexts. Hence, the model for this study that was adopted was adapted to account for the idiosyncratic elements across multiple systems of impact within early years settings in Colombo, Sri Lanka. The next section of this chapter unpacks this model and its various components.

3.5. Introducing the Educator Micro-Context (EMC) model

The model that was developed for this study is referred to as the Educator Micro-Context (EMC) model. The EMC model differs from other social ecological models that have to this point been used in physical activity and associated health research and health promotion, as it places the educator and the child within the micro-environment of the early years setting (see Figure 9 The Educator Micro-Context model). This is important as it helps to understand better how the educator (facilitate or limit) physical activity and active play behaviours within the immediate environment of the early years setting.

The EMC model also takes into consideration the impact of environments and systems on early childhood educator practices and decision-making and helps to explore these factors across systems of influence (see Figure 9 The Educator Micro-Context model). As such, the EMC model includes elements proximal to the phenomenon, such as the child's family, and the home environment and the neighbourhood and community in which the service is located (meso-environment of the EMC model), (see Figure 9 The Educator Micro-Context model), as well as more distal factors, including friends and social media (Exo-environment of the EMC model) (see Figure 9 The Educator Micro-Context model).

The EMC model also included national early years curricula and policies, societal beliefs, values, ideologies, laws, cultures, customs, and education system mandates and expectations (Macro-environment of the EMC model) (see Figure 9 The Educator Micro-

Context model). Such inclusions and considerations within the EMC model were necessary for understanding the complexity of educator decision-making and the interplay of factors that impact more broadly on their perspectives, behaviours, and practices, as well as the nuances and idiosyncratic nature of these factors within a specific context, in this case early years settings in Colombo, Sri Lanka. The next section of the chapter now unpacks key components of the micro, meso- and macro-environments of the EMC model.

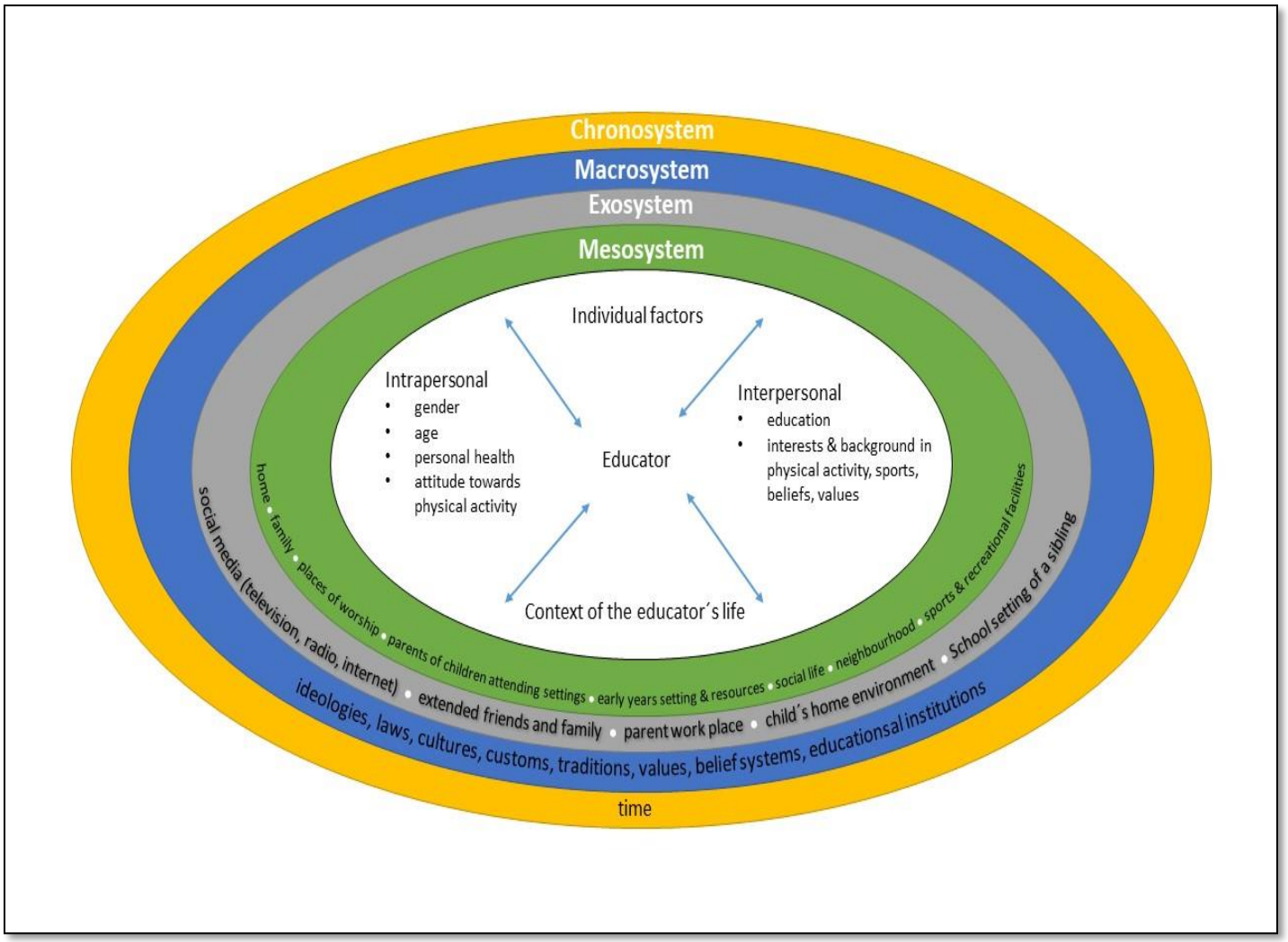
3.6. The micro-environment of the early years setting

At the heart of the EMC model sits the micro-environment. A point of distinction from other social ecological models is the particular composition of the micro-environment in the EMC model, understood to include contextual factors that significantly impact on educators' perspectives, decision-making and practices and in turn on the affordances for young children's physical activity and active play behaviours (as discussed in Chapter 2). Contextual factors are defined as "nuances of determinants unique to a particular environment, location, community, group of people or individual" (Brown, 2012, p. 368).

A number of factors located within the micro-environment of the EMC model were found to impact on the educator. Individual factors related to the educator include intrapersonal characteristics, such as gender, age, personal health, and attitude towards physical activity. Interpersonal factors included beliefs, values and lived experiences related to physical activity and active play (the relevance of context-bound factors was discussed in Chapter 2) (see Section 2.2.2 Determinants and factors colliding in early years environments).

Figure 9

The Educator Micro-Context model



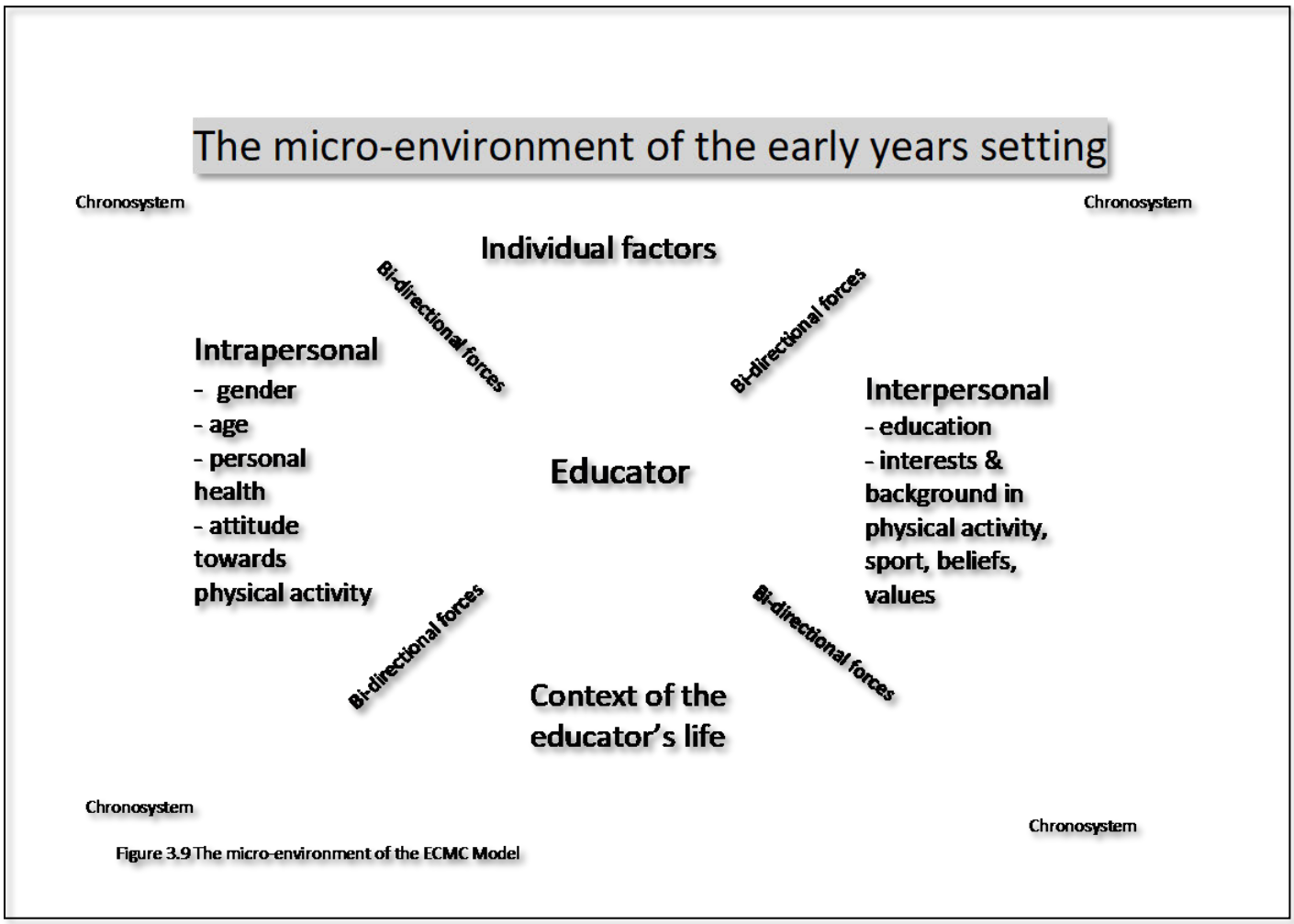
Another important inclusion within the micro-environment of the EMC model Figure 9 was the physical environment within the early years setting. The physical environment refers to the built structure of the early years setting as well as to resources allocated to the built physical environment, such as the location of the early years setting, the layout of the setting, the spaces and places of active play, proximity to parks, active play resources (fixed and moveable) and the neighbourhood. The inclusion of the physical environment within the micro-environment of this model was essential in capturing a better picture of contextual factors (using the Active Play Screening Tool) that can potentially influence educators' understandings, beliefs and practices related to physical activity and active play.

Finally, it was important that the EMC model included the component and the associated consideration of the element of time (temporal environment) as a significant factor impacting on educator's practices in significant environments/physical spaces other than the early years setting. Temporal factors included daily timetables/schedules of the academic day, the time periods dedicated to instructional practices, such as those of physical activity, and the working hours of the early years setting. Consideration within this element of the model was also given to other factors such as time dedicated to other areas of teaching (such as mathematics and literacy) impacting on (increasing or limiting) the availability of time for unstructured physical activity during inside and/or outside playtime (including scheduled breaks).

3.7. Factors beyond the micro-system of the EMC model

There is significant complexity embedded in the EMC model. This was necessary as the model needed to help to make sense of and account for factors impacting on educator's understandings, beliefs and practices related to children's physical activity and active play, whilst also accounting for factors impacting on the micro- setting of the early years environment catering to 3–5-year-old children. Given this, it was essential to consider not only the proximal factors located within the micro- environment, but also the complex determinants located close to or overlapping with the micro-environment (mesosystem). These factors coud include the pedagogical curriculum offered at the setting, the neighbourhood surrounding the early childhood service, families, and parent's workplaces, and those factors located more distal to the phenomenon (macrosystem), including ideologies, laws, cultures, customs, education system mandates and expectations, and traditions, values, and belief systems. This was an essential part of the process in helping to ensure the models robustness, particularly in capturing the reciprocity of the relationships between these multiple systems of influence (see Figure 10 The micro-environment of the EMC model).

Figure 10
The micro-environment of the EMC Model



3.8. The meso-system

Located closest to the immediate environment of the early years setting and the phenomenon for this study was captured in the EMC model through the meso-system (see Figure 9 The Educator Micro-Context model). The meso-system is composed of interrelationships of factors that exist among or between or among two or more settings/contexts/environments understood to have direct or indirect influence on the phenomenon (Bronfenbrenner, 1979; Brown, 2012). Mesosystem environments were considered important inclusions in the EMC model, such as parents' concerns, beliefs and expectations emanating from pressures related to educational expectations.

3.9. The macro-system impacting on the early years setting

The macro-environment was a significant inclusion in the EMC model (See Figure 9 The Educator Micro-Context model) and understood as the most distant system from the phenomenon. For the EMC model some of the factors located within the macro-environment included the cultural context in which the setting was embedded, and the history and social conditions associated with the culture/community, as well as economic systems, ethics, and laws such as those that guided educational curricula (such as educational policies and government initiatives that guided teaching and learning practices). These factors are recognised as directly or indirectly impacting on educators' perspectives and practices impacting on their support for physical activity and active play.

For example, cultural events, such as the celebration of the Sinhala and Tamil New Year, significantly impacted on routines and scheduled events within the immediate environment of the early years settings over an extended period of time as they required extensive preparation that took away from the time available for children's engagement in active play. Despite being distant from the immediate environment of the early years setting, such events significantly determined the availability of time for promoting physical activity and active play within the early years setting. Including such factors into this study was paramount to this unique context, particularly when taking into consideration that there was no set curriculum in place that guided teaching and learning practices in the early years education in Colombo, Sri Lanka.

3.10. Summary of the chapter

Over time, ecological and social models have been adapted and adopted across numerous disciplines of research for a range of purposes (Brown, 2012; DeVries2003; Shapira-Lishchinsky, 2017). Each of these has been embraced to understand better the dynamic reciprocal forces occurring among and impacting on physical (e.g. architecture), social (e.g., culture) and individual elements found within the context which then impacts on a phenomenon. Given that this study was bounded within an interpretivist paradigm, the intent of creating and employing a social ecological model,

the EMC model, was to understand better the range of factors impacting on educator's understanding, beliefs, attitudes, values, and practices related to physical and active play offered in early years settings in Colombo, Sri Lanka. The underlying premise of this model way that each micro-environment is influenced by a unique set of contextual factors, while also appreciating and acknowledging the significant influence emanating from other systems, with explicit attention being given to the social, institutional, and cultural contexts of people-environment relationships (physical/social/cultural environment, personal attributes) (Bronfenbrenner, 1979; Schneider & Stokols, 2000). The design of EMC model was made robust enough to explore the nuances of these factors impacting on early years educators' affording and/or inhibiting opportunities for physical activity and active play within specific early year settings.

CHAPTER 4: METHODOLOGY

Chapter 3 provided a thorough overview of the underlying conceptual framework that functioned as a foundation as well as guided the data analysis, for this study. The framework helped to expose and bring to the surface the embedded elements, factors and environments that impact on educators' understandings, beliefs and values that influence their decision-making for supporting active play and PA in early year settings. Chapter 4 begins by presenting my own lived experiences and belief system that shaped my positionality and that in turn influenced all aspects and approaches adopted for this research (see Section 4.1). The chapter offers a rationale for choosing to adopt qualitative methods, the decision to adopt a case study approach (see Section 4.3), as well as details about the context of the case, the selection of participants (see Section 4.3.6) and the timing of the research (see Section 4.3.8). The chapter concludes with a discussion of how trustworthiness and rigour were achieved (see Section 4.5) as well as ethical considerations and strategies for building trust and rapport with participants (see Section 4.6.2).

4.1. Being, becoming (ontology), knowing (epistemology) and valuing (axiology)

The methodological approach adopted for this inquiry was underpinned by the premise that what we believe constitutes social reality (Blaikie, 2000), and that the process of meaning-making occurs and is embedded in context with social beings (a relativist ontology). The underpinning intent of this study was to gain an in-depth understanding of a phenomenon from within the social group (emic), gaining insights from the perspectives of the early years educators, rather than from the outside (etic) (Olive, 2014). Each person's meaning-making, as well as her or his experiences and knowledge, were therefore valued as being unique to a particular context, and as part of the ongoing process of co-construction (an interpretivist paradigm) (Denzin & Lincoln, 2011; Lincoln & Guba, 1985; Phothongsunan, 2010; Silverman, 2016).

The continuous process of sharing ideas and expertise is significant in creating

a context-bound reality that is unique to the setting (early years setting) that cannot be generalised to a broader community, but that can be transferred to similar situations through knowledge co-construction (epistemology) (Yanow & Schwartz- Shea, 2009). This aligns with the interpretivist paradigm that does not regard the social world as being out there, but that posits that participants assign meaning to the social situation under investigation (Phothongsunan, 2010). The social-ecological perspective (Bronfenbrenner, 1979) thus complements the meaning-making process by taking into consideration that a range of factors, such as multiple systems and environments, influence the beliefs, understandings, and practices of individuals bi- laterally (from the inside out as well as from the outside in) (Bell, 2001; Nije & Asimiran, 2014; Schneider & Stokols, 2000; Stokols, 1987).

These same considerations regarding factors of influence can be applied to the researcher's own value system, their axiology and how these values then impact on all aspects of a study. For the purpose of this study, ontology was the starting point, from which my epistemological, axiological and methodological positions logically followed. Ontology is understood to be the study of being, describing beliefs about reality, and making claims and assumptions about the nature of social reality (Berryman, 2019). Reality is then created by looking at how different units of the truth interact with one another.

This study was shaped by the principles of the relativist ontology. Relativist ontology is predicated on a belief in multiple realities. Social reality is experienced by multiple people, and these people interpret events differently, leaving multiple perspectives of an incident (Polyglossia, 2010). With the truth evolving and changing, it depends on the experiences of the individual person and the contexts within which that person is situated. As the meaning attached to truth, and hence truth itself, are context-bound, they cannot be generalised. Truth may only be transferred to similar contexts (Levers, 2013).

My relativist positioning meant that I valued multiple perspectives, multiple truths and context bound phenomena that led the decision to explore my interest in exploring

early years educators' understandings, beliefs, values and practices related to physical activity and active play. This positioning also meant that I viewed educators as being situated within context, and the appreciation that context impacted on individual interpretations of meaning. For this research, I valued early years educators as experts within their context when seeking to understand their understandings, beliefs and practices in relation to active play within early years settings in Colombo, Sri Lanka. I valued educator's perspectives as offering in-depth and meaningful contextualised insights that helped me to understand better the nuances unique to their environment and which factors they experienced to influence within their setting.

I also believe that active play in itself is values-based. This belief emerged from research showing that active play has been associated with a number of benefits for children's social-emotional, cognitive and physical health and well-being (Callow et al., 2020; Joseph et al., 2019), as well as shaping children's positive attitudes and behaviours in relation to health and wellbeing (Duff et al., 2022; Nobre et al., 2022). These benefits have been found to contribute positively to children's holistic development that tracks into adulthood (Hayes et al., 2019). Hence, further consideration is given to elements associated with active play, such as the wellbeing of the child, as well as the agency of the child related to creating opportunities for active play, which are based on a sense of community and the ideal of caring for one another.

4.2. Working within an interpretivist paradigm

Traditionally, studies within the field of health have focussed heavily on a positivist approach to measuring levels of physical activity in an attempt to understand sedentary and physically active play behaviours. Recent health research, on the other hand, has increasingly employed an interpretivist perspective focused on investigating the multiple realities that exist within context-bound systems (Berryman, 2019; Grosskopf, 2021; Phothongsunan, 2010; Romani, 2018). Working within a relativist ontology for this study was valuable in helping to guide the "process of finding answers to the research questions" (Berryman, 2019, p. 273). My positioning within the interpretivist paradigm

strongly aligned with the intent of this study, where the goal was to gain an in-depth understanding of the phenomenon of active play within the context of early years settings in Colombo, Sri Lanka. As a researcher situated within that context, employing a relativist ontological approach meant engaging directly with the participants throughout the meaning-making process within the context of their early years settings. This approach helped me to gain a deeper and contextualised understanding of the phenomenon of active play. Unravelling context-bound influences from within the immediate context and through the direct experience of the educator (inductively) was intended to help to "understand, explain, and demystify social reality through the eyes of different participants" (Cohen et al., 2007, p. 19).

4.3. The complexity of self as a researcher (epistemology)

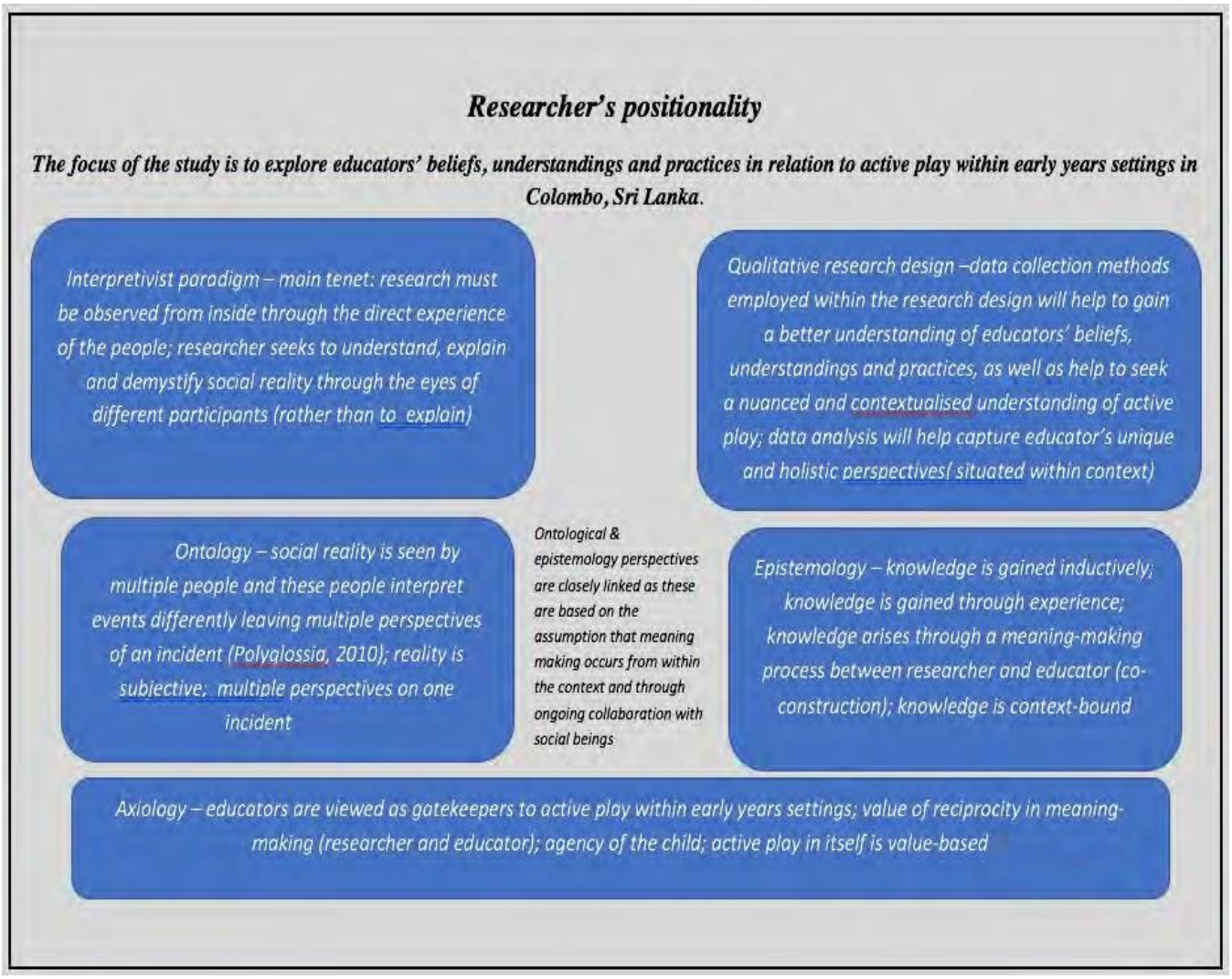
As an interpretivist researcher, I bring my own personal stories, lived experiences, belief systems and understandings into my research. In gaining a deeper and more profound understanding of the world around me, I need to also to accept, appreciate and acknowledge that people have their own perspectives and worldviews that they bring to the field of research (Yanow & Schwartz-Shea, 2009) (see Figure 11 The researcher's positionality). This notion of acceptance is the foundation on which a more comprehensive understanding of the situation – in particular, the phenomenon within a particular context – can be explored in-depth, bearing in mind that the purpose is to gain insight into the field of study (Phothongsunan, 2010). Understanding that my own belief system will always be present when examining and evaluating the experiences, thoughts and understandings of research participants shapes the foundation of the interpretivist research approach employed in this study.

Angen (2000) portrayed the notion of subjectivity with the following statement: "Being in the world, we are already morally implicated. Our values and beliefs will show themselves in our actions whether we stop to think about them or not" (p. 384). The way that I see the world and understand physical activity and active play was a crucial part of the research process that I employed. Such values contributed significantly to and

transferred over into the research design chosen and into the data analysis. It also influenced my role as an observer, within a contained context, and how I see the world around me. Figure 11 further explores the significant role of the researcher's positionality as observer within this study.

Figure 11

The Researcher's Positionality



4.4. I am an advocate of movement and physical activity

My positionality as a researcher in this study was aligned with my belief in being an advocate of movement (see Figure 11 The researcher's positionality). This derives from my personal conviction about maintaining a healthy lifestyle, and about making movement a significant part of my own everyday life. Research conducted in the field of

health and well-being reinforces the importance of physical activity and active play for physical, social-emotional, and cognitive development (Chalke, 2016). Being an advocate of movement in my personal life has significantly impacted on and shaped my belief related to the importance of movement for myself and to the valuing of movement for children and their health and wellbeing. Working as an early years educator for several years put me in the fortunate position of being able to advocate for young children's engagement in movement within the early years environment by incorporating physical activity and active play practices into my classroom routines.

Being the Head of School in my current setting then allowed me to promote the importance of physical activity and active play for children's health and wellbeing by scheduling set times for students to attend structured physical activity sessions with a certified Physical Health and Wellbeing (PHE) teacher. In addition, break times were purposefully planned to promote time for unstructured active outdoor play during the regular academic school day, with an afterschool care program offering a diverse set of physical activities, such as football, basketball, and others. The aim was to help children to enjoy a range of opportunities to be physically active while developing their fundamental movement skills. Having had the joy of working in a range of different environments throughout the world in my early career (Italy, Sri Lanka, and Saudi Arabia) has helped me to acknowledge further the physical, social and cultural contexts impacting on my positionality and shaping my understanding of the importance of context as a significant contributor to children's physical activity.

My passion for being physically active stemmed from my own lived experiences in physical activity, and, after trying out a range of sports activities during my own schooling, I focused on martial arts, such as Aikido and Taekwondo. Later, during my years at university, movement remained a constant in my life, trying out Karate and Gymnastics. This constant also shaped my first years as a full-time teacher in Italy. I started to train in Savate Boxe on a regular basis as a way to balance work, life and healthy living. In my current setting, in Saudi Arabia, I have picked up martial arts again, with a focus on Muay Thai and Grappling/Jiu Jiutsu.

My passion for being physically active transferred to my daily teaching practices. Advocating the importance of physical activity came in the form of creating opportunities for movement-based learning for children, either within the classroom or in the outside spaces surrounding the school setting. During structured physical activity sessions, I engaged in discussions with students, explaining why I valued being physically active and informing them that they are building foundations for their healthy lifestyles by engaging in structured physical activity and unstructured active play. I continued to advocate movement in after school hours, offering children in the early years (children aged three to six years of age) the opportunity to engage in structured soccer practices to develop several football skills, such as dribbling and passing the football, as well as benefitting from developing their co-ordination skills and social skills when collaborating and cooperating with other children. In my position as an early childhood teacher in Saudi Arabia, teaching children five-six years of age, meant that students would be transitioning into Grade 1, with a shift from play-based to more formal academic learning. My philosophy, though, has remained the same: to offer children the opportunity of developing a passion and love for moving, physical activity and active play.

The extensive research about the importance of physical activity and active play continues to enforce my strong belief in the importance of integrating and implementing physical activity and active play within educational institutions. In my current position as Head of School I continue to promote the significant contribution that physical activity and active play make not only to preventing health-related problems, such as obesity and cardiovascular diseases, but also to the development of bones and building a stronger immune system. Findings, such as these, and others showing the positive effects on children's learning and on their physical, social, emotional and cognitive development (Bjørgen, 2016; Gray et al., 2015; Herrington & Brussoni, 2015), have significantly shaped my positionality and my advocacy of movement. Being in the position as Head of School, I further advocate for this to happen not only within the early years setting, but also across all divisions of the school, as children spend a significant amount of their time in educational facilities, which can impact significantly on their health and wellbeing.

4.5. I am appreciating the uniqueness of the context

Living and working in different cultural and educational environments has significantly influenced my perspective on the importance and idiosyncratic nature of context (relativist ontology) (see Figure 11 The researcher's positionality). Moving to Sri Lanka in 2014 had a significant impact on my pursuit of this study, and in particular on placing an emphasis on the importance of the context. The range of identified educational settings influenced my appreciation of context as a significant element, impacting on my teaching and learning practices in early years environments.

With this in mind, I formulated research questions that acknowledged the importance and uniqueness of the context. The research methods/design and research tools that were employed were further chosen with the understanding in mind that practices are context-bound (qualitative research approach). Exploring early years educators and their practices, while taking into consideration the particular contexts within which they worked (emic epistemology), contributed strongly to my seeing the phenomenon through a lens that appreciates and acknowledges the educator's lived experiences, beliefs, perspectives and understandings as a significant element of creating a better understanding (axiology).

4.6. Axiological perspectives

The axiological assumptions that generated the values that I applied to the study in relation to the research process, were based on the understanding that this research was values-bound. Two main strands significantly formed the axiology of this study. The first saw the strengths of, and values, the insights in others, and therefore I chose to employ a strengths-based approach to all aspects of this study. The second was the valuing of reciprocity and the respectful and generous mutual exchange of thoughts, ideas and understandings between the educator and the researcher.

As a researcher in context, adopting a strengths-based approach meant being open to the possibilities of learning from and with early years educators and children. Hence, I entered the early years setting humbly, acknowledging, and appreciating that

much could be learned from the people situated within the setting with regard to the phenomenon being explored. I also recognised the important role that those significant adults occupy in the lives of the young children, particularly in supporting their learning, development, health, and wellbeing (Arabena et al., 2015; Fenton, 2016; Thurow, 2016; Trost, 2010). As such, I view the educator as an expert, situated within unique settings and early years environments. I appreciate that educators come with years of experience in relation to the early years environment, and I acknowledge their understanding, skills and love for teaching and learning. I recognise that even educators new to teaching bring with them a unique set of skills, and a desire and love for teaching young children. These elements not only guide their practices, but also inspire the children to enjoy learning and being physically active. Given this, rather than looking at the limitations in individuals with whom I seek to research, I view others through the strengths-based lens of enablers.

Entering the context of the early years setting further comes with opportunities to learn from one another. In this process I value reciprocity as being essential in the meaning-making of the phenomenon of physical activity and active play. I see the relationship between researcher and participant as being reciprocal, meaning that each party is open to share their insights, lived experiences and perspectives (see Figure 11 The researcher's positionality). Given this, reciprocity was understood as a relationship in which the educator, as well as the researcher, contributes something that the other needs or desires, devoting valuable time, effort and lived experiences to inform and shape the researcher's study (Trainor, 2013). For the purpose of this study, each party significantly contributed to the process of better understanding the phenomenon of physical activity and active play in early years settings in Colombo, Sri Lanka.

Conducting semi-structured interviews was an example of reciprocity leading to the researcher sharing current research findings with the educators. After conducting the semi-structured interviews, the researcher shared current research related to recommended levels of physical activity and active play across infancy through to adulthood. Another area that the researcher explored in more detail with the educators was the terms 'physical activity' and 'active play', as the educators expressed an interest in further clarification. Other opportunities for sharing expertise in the respective fields

of knowledge and experience arose throughout the semi-structured interviews, with the needs being highly contextualised to the setting of the educator.

Another element that was valuable for better understanding of physical activity and active play in early years settings was the children situated in context. Adopting a strengths-based approach meant recognising that each child was valued as an integral part within the early years setting, with the potential for teaching us valuable lessons about their everyday lives and contexts. As such, each child was seen as an agent of their own physical activity. Agency, understood as a child's ability to take ownership of their own learning and being able to make decisions and to take actions for their own health and wellbeing in the form of physical activity and active play, was valued as significantly impacting, either facilitating or limiting, on children's physically active behaviours formed in the early years settings.

The axiological perspective employed for this study was further shaped by the researcher's assumption that active play in itself was also values-bound (see Figure 11 The researcher's positionality). The researcher appreciated that active play was based on the understanding that each stakeholder brought their own values and perspectives, lived experiences and history that contributed to their understanding of the term of 'active play'. The educators, the children, the parents, and I as the researcher brought our own unique positionality that influenced how we viewed and understood active play. This was valued as important in offering a contextualised understanding of physical activity and active play unique to each early childhood setting.

4.7. Qualitative methods for understanding values, perspectives, beliefs and practice

Qualitative research provides opportunities for in-depth inquiry into a phenomenon where little information is available. The process of digging more deeply to understand a situation, process or phenomenon requires adequate amount of time to fully capture fully the complexity of the phenomenon. The intention of using qualitative research is to help to reach the underlying meanings and the complexity

of the phenomenon, revealing, in particular the meanings and the contextualised relationships (Nije & Asimiran, 2014).

Qualitative research methods are suitable for obtaining in-depth information about the phenomenon in its natural, real-life context (Creswell, 2018; Crowe et al., 2011). Essential to the exploration of the phenomenon is that meaning hidden in the nature of reality is being understood, shared and interpreted by people (Baboucarr & Asimiran, 2014; Denzin, 2017). For the purpose of this study, employing qualitative research methods helped me to understand better educators' values, perspectives, beliefs and practices regarding physical activity and active play within the early years setting.

For the purpose of this study, the open-ended nature of qualitative research led to using a multi-method focus of data collection. It involved an interpretive and naturalistic approach from an emic perspective (from within the natural setting), in an attempt to make sense of the phenomenon in terms of the meaning generated by the people involved (Denzin & Lincoln, 2011; Merriam, 2016). Adopting a qualitative research approach was then appreciated in gaining a deeper understanding of insider insights and perspectives about the complexity of implementing and integrating active play in early years settings.

Hence, subsequent qualitative data methods were employed to explore active play more fully with a smaller group of participants (early years educators), who shared rich descriptions of their practices, perspectives and lived experiences. The intention of this approach was to provide greater insight into and understanding of the phenomenon of active play and of the practices that afforded active play from the perspectives of early years educators (Research Questions 2 and 3) (Creswell, 2003, 2009; Tashakkori & Creswell, 2007).

4.8. Defining the case and its value for exploring the educator and early year contexts

A case has been defined as a concept that helps to understand a contemporary

phenomenon within its real-life context. These are commonly located within pre- defined temporal and spatial boundaries (Chalke, 2016; Lā ma, 2020; Stake, 2000), with each case to be viewed in lieu of its unique context and as located within a clearly defined bounded system. Using a case study approach was chosen as it helps to gain in-depth details about an event, person or process (Creswell, 2003; Denzin, 2017; Nije & Asimiran, 2014; Stake, 2000; Stake, 2013).

Most case studies can be comprehensively categorised into three types: intrinsic, instrumental, and multiple case study, with instrumental case studies using a particular case to represent a broader appreciation of the issue, and collective case studies studying multiple cases simultaneously again to gain a broader appreciation of the issue (Creswell, 2009; Crowe et al., 2011). For the purpose of this inquiry, an intrinsic case study was adopted as the methodological approach. This supported a deeper contextualised understanding of the phenomenon of active play, acknowledging and appreciating that the case was situated within a unique educational context, embedded in a greater bounded system (Nije & Asimiran, 2014; Stake, 1995). Employing a case study approach afforded greater insights into how early years educators' understandings and beliefs translated into actual active play practices in early years settings in Colombo, Sri Lanka. Using a case study afforded insights into the complexity and interconnectivity of the phenomenon of active play to be explored, as well as opportunities to identify and understand interrelated factors located within the immediate environment of the setting and broader systems of influence (Denzin, 2017; Stake, 2000).

4.9. Determining the type of case study – a naturalistic case study

The case study design, also referred to as " naturalistic design" (Crowe et al., 2011), has as its central tenet a focus on an in-depth exploration of a phenomenon within its natural context. For the purpose of this study an intrinsic case study was chosen (Crowe et al., 2011). Intrinsic case studies focus on the uniqueness of the context (Crowe et al., 2011; Stake, 2013).

The intention of this study was to gain a contextualised understanding

of what was occurring in a particular case, and the motivations and practices unique to each context, while valuing that those living/working in these settings are idiosyncratic and nuanced (Nije & Asimiran, 2014). Conducting research within these contexts further required gaining insight into the complexity and interconnectivity of a phenomenon, based on the interrelated range of external and internal factors (Denzin, 2017; Stake, 2000;). Given this, adopting an intrinsic case study approach for this inquiry served the purpose of investigating the idiosyncratic nature of each setting, whilst acknowledging that each case is part of a greater whole, thereby affording an authentic opportunity to gain insights into and to listen to the stories of the early years educators who were located within the case. With the educator located within the immediate environment of the early years setting, using an intrinsic case study also enabled insights into the authentic lived experiences shared by the participant (Stake, 2000).

This case study approach was in line with two assumptions of the naturalistic perspective. The first assumption was that meaning-making occurs only in the context of the natural environment where individuals are influenced by the interplay of multiple systems and environments (Bell et al., 2001; Stokols, 1987). The second assumption was that an individual's interpretation, as well as her or his experiences and knowledge, are unique to a situation and to a given set of circumstances (Lincoln & Guba, 1985). The intrinsic case study approach was also in line with the research questions for this study focused on exploring the phenomenon of physical activity and active play from within the bounded system, in the real-life context of the early years setting, while acknowledging the uniqueness (nuances) of each context (intrinsic case study) as significantly impacting on educators' understandings, beliefs and practices regarding physical activity and active play (Crowe et al., 2011; Harrison et al., 2017; Stake, 1995). Employing an intrinsic case study therefore offered an approach that enabled an in-depth exploration of the phenomenon of active play.

4.10. The type and boundedness of the case

This study was a single case study with multiple sites. The bounded system in

this study was the early years learning setting (catering to children aged three to five years) in Colombo, Sri Lanka, with the educators situated within this context. Located within this context were also children, as well as the indoor and outdoor learning environments dedicated to and made available for children to explore, and in which they could play and learn. Settings included private as well as government-run early years learning contexts. Binding the case in such a way enabled data to be collected to support gaining insights into early years educators' beliefs, understandings and practices in relation to active play, with the intent of identifying potential determinants and contextual influences impacting on early years educators' ability to facilitate active play in the early years environment.

4.11. Selecting the participants

To meet the goals of the study and to adhere to the boundedness of the study, purposive sampling was required. Purposive sampling was applied in order to help to identify and select information-rich cases that were understood to be of value in gaining an in-depth understanding of the phenomenon (Palinkas et al., 2013). For the purpose of this study it was the researcher's intention to "select participants who have experienced the central phenomenon or the key concept being explored in the study" (Creswell & Plano Clark, 2011, p. 415). Using purposive sampling l thus helped to identify those educators who valued and shared lived experiences of physical activity and active play. Given the boundedness of the study, it was important that participants were English-speaking, early years educators currently working in early years centres in Colombo, Sri Lanka and that they valued physical activity and active play. It was acceptable for educators to be licensed or non-licensed in terms of their qualifications. Being a licensed teacher in Sri Lanka required the educator to hold either a university degree or a certificate from a College of Teaching that qualified that educator to become a teacher. Educators holding a Bachelor of Education degree or higher education (including a teaching licence for Sri Lankan government schools) were considered for this study. For this study, educators having received only one year of professional training in Early Childhood Education or holding an Advanced Certificate in Pre-school Education

were also considered to participate. Other educators also eligible to participate were those who had either not completed their Advanced Levels (A-levels) or not completed an educational degree. This meant that potential participants in the study could include educators with a range of qualifications, such as an educational degree, as well as those with minimal training.

Purposive sampling was achieved by initially conducting an Internet search that yielded multiple early years environments that had the potential to fulfil these criteria. Despite an intensive online search, further research was needed to find more educational early years learning environments catering to children aged three-five years of age, with English being the language of instruction. To yield further numbers of participants who would align with the study educators were recruited from contacts known by the researcher, as well as referrals.

Initial contact with participants was made via phone calls to those school settings that had been identified by the researcher as being viable for this study. This initial contact was helpful in providing school directors with a brief introduction of my person and the purpose of the study being conducted, as well as the participants role in contributing to the study. In those phone calls reference was made to a follow-up email, that was to be shared with any other members of their early years staff who expressed an interest in participating. This email was intended to introduce myself in more detail and to offer further details about the study. Within these emails, educators were addressed and asked to respond to several quick questions to see whether they actually fit the participant requirements of the study. Questions included for example how much value educators placed on children engaging in active play experiences within the early years setting, and how frequently educators used active play experiences within their setting. Other questions included how frequently children engaged in active play experiences in the early years setting throughout the year, and how often educators thought that children should be engaged in active play in their early years setting throughout the year. Responses to these questions were valued as an initial indicator of the importance and relevance that educators placed on the role of active play in early years settings in

Colombo, Sri Lanka.

This email was sent out to 20 directors/educators of/in early years settings in Colombo, Sri Lanka. From the initial emails 7 potential participants were identified as meeting the criteria for this study. Participants willing to continue to partake in further stages of this study were asked to share their contact information via email. Once educators expressed interest in participating in the study an initial in-person meeting was arranged based on the request of some of the schools. This initial meeting was used to introduce myself in person, orientate participants and share further details of the study to help educators to gain a better understanding of the purpose of the study, and to clarify the process and the educator's involvement. At this opportunity a consent form was shared, explaining that there might be follow-up on-site visits and semi-structured interviews (see Appendix D – Participant Consent Form).

4.12. Sources of evidence

This study used multiple sources of evidence to understand better the case of active play from the perspectives of the participating early years educators. All data were collected within one visit, with myself as the researcher spending an entire day at each early years setting. These on-site visits included observations using anecdotal records, photo documentation of the environment, reference to the Active Play Audit Tool to scan for places and spaces of active play (see Appendix A – Active Play Scanning Tool) and the semi- structured interview with the early years educator. These sources of evidence were employed and organised around the services regular routines as well as the educator's busy schedule.

4.13. Researching in context

It was important that a range of data gathering tools was employed to observe closely and understand the micro-environment (temporal, social/human, physical) of the early years setting, and to appreciate the lived experiences of those situated within the setting. Gaining an appreciation and deeper understanding of the early years environment and context also helped to understand better the educator's lived

experiences related to physical activity and active play, and the values and beliefs of the importance of incorporating physical activity for children in the early years. The following section now addresses gaining ethical entry to each site and considerations related to rapport building. Each data gathering tool is then explained and unpacked in detail.

4.14. Ethics and the procedure for gaining entry

The researcher acknowledged the potential source of tension associated when working with early years educators and with children within early years settings. It was the researcher's foremost priority to ensure that a researcher/participant rapport could be established that was founded on the basis of ethics and morality. In this regard, it was essential to respect the participants' identities when gaining confidential, in-depth information from them in the form of their personal beliefs and understandings. Throughout the study, the researcher recognised the need to maintain and consolidate a balanced research/participant relationship by reaffirming the participants' willingness to participate. As it was the participants who shared whether or not they would like to participate in this study in the first place, the researcher recognised and reinforced the participants' right to withdraw freely from the study at any given time, without any kind of penalty or without putting them out of countenance.

Throughout the research, a number of efforts were made to adhere to ethical requirements and to protect the participants' anonymity as well as that of their educational context and their geographical location (referred to as a suburb of Colombo). While it was important to the case study approach with multiple cases to offer a detailed contextualised description of each setting, pseudonyms were used for educators and their respective educational settings. This ensured that the details shared led to authentic and contextualised insights about each of the environments, while also protecting everyone involved. For example, as the researcher's intention was to gain further data through on-site observations, carefully observing children engaging in active play, significant consideration was given to the identity of the child (for example, avoiding the depiction of the child and not revealing her or his identity)

(Alderson & Morrow, 2004). Parental consent was collected prior to the observations.

Ethical clearance was obtained from the USQ Human Research Ethics Committee to ensure that this study complied with the ethical guidelines of the University of Southern Queensland, Australia (see Appendix C – Copy of ethical clearance letter). Further ethical requirements linked with the Sri Lankan context were not required for this study.

4.15. An ethical dilemma in gaining trust

The researcher acknowledged that entering an unknown environment as a stranger could potentially intimidate those working within the setting that was visited. Besides potential concern about the researcher's gaining access to crucial practices or teaching habits, educators might feel observed and uncomfortable having another early years teacher entering their environment. It was therefore important to establish an open and honest dialogue, and to communicate clearly the purpose of my research and of my intended visit. As it was intended to visit each setting only on one occasion, trust had to be established in advance in order to be allowed to enter the micro-environment.

For the most part, it took several attempts to contact and talk with Heads of School, who would then establish the contact with the educators interested in participating in the study. It took further effort to be invited to visit their schools for research purposes. Once personal trust had been established and a connection at the human level was achieved, it was possible to enter the learning environment and to gain meaningful insights from within that context.

Despite the establishment of an initial foundation of trust via email and phone, some educators requested an informal meeting before confirming their participation. Given a set time and date that suited them, I presented myself with all necessary information at the respective early years setting, open to answering all relevant questions. This initial meeting was intended to reinforce my professionalism as researcher, build upon the early rapport established and demonstrate the authenticity of

my study.

4.16. The Active Play Audit Tool

There was a purposeful decision to employ the Active Play Audit Tool during the on-site visits to gain the bigger picture of the phenomenon of physical activity and active play in each early years setting, and to help to assess how effectively learning environments were supporting children's active play. The tool was adopted from the Australian Capital Territory (ACT) active play audit tool (see Appendix A – Active Play Scanning Tool). The Active Play Audit Tool used for this study consisted of several sections, each with a specific, context-bound focus. Attention was given to the physical, human/social, and temporal features of each setting.

The audit of the physical environment focused on the indoor and outdoor learning spaces available in each setting. Within such spaces, resources, including a variety of portable and fixed play equipment and adequate shading, were identified as potentially offering opportunities to support children's physical activity and active play. Using the audit tool helped the researcher to explore key elements of the physical environment and resources within each context, that were considered to promote physical activity and active play. These included, for example, the identification of natural and built structures available at the setting, such as edible plants, trees, and grass fields, as well as climbing frames, shovels, hoops, and push cars.

The audit tool also supported efforts to identify those elements of the temporal environment that focused on how time afforded for or was a potential barrier to active play. Using the audit tool helped to identify elements of time unique to each setting. Across different settings elements included the time, sequence and length of routines, mealtime, and nap time, as well as the time required to transition across learning areas were observed and noted. Using the audit helped to explore how those elements of time impacted on the promotion of active play.

Finally, throughout the regular school day, human and social components, such as the interactions among children, educators and parents were identified as holding the

potential to create opportunities for active play. Given this, contextual observation and the use of the audit tool supported the investigation of these human and social elements of the environment. Through the observation elements explored using the audit tool included the teacher/child ratio and the class size. Using the audit tool also helped to identify and explore those opportunities where the educator had the opportunity to embed active play into the everyday curriculum, provide learning experiences for students for risk-taking and to be challenged, and provide quality and sufficient resources for children to engage in unstructured and structured physical activity and active play within the micro-environment of the early years setting.

4.17. Capturing contextual details through imagery and documentation

Capturing the idiosyncratic nature of each setting in the form of imagery and documentation emerged from the understanding that the interaction between educators and children is formed by a continual process of interactions and from recognising that these are influenced by a complex set of social ecological factors. For this reason, and in line with intrinsic case study and the ontological positioning of this research, contextual observation and documentation were adopted as meaningful data collection techniques. These strategies allowed me to adopt to the role of "self in context" and "learning from observing others" (Stake, 2005, p. 4).

Being on site as an observer, meant that I was able to see the daily routines and interactions of the educators and the children unfold (Torin & Fisher, 2010, p. 363).

The potential of abundant data floating around me, constantly present, offered unique insights into educators engaging with students during different parts of the day in the inside and outdoor environments. This included routines, such as welcoming students, spending time together during snack and lunch and being physically active. Occasions such as these provided an excellent opportunity for the researcher to observe the micro-context 'in situ'. Observing context then included obtaining information on the social/emotional environment, the temporal environment (time, schedules, routines, and

time pressures) and the physical environment, including active play resources used to support and enhance children's physical activity experiences in the indoor and outdoor environments.

For this study, photographic and written documentation was valued as useful tools to collect data (Pera et al., 2022) related to opportunities for active play at each early years setting. Photographic documentation, a data collection tool where photos are taken to record information, is a rather new and under researched mode of data collection in qualitative research (Tahir, 2019). It allows to record behaviour, such as physical activity and active play, to be recorded in its situational context (Tahir, 2019). For this study, photographic documentation also helped to capture those spaces within the early years settings that were conducive to active play. Evidence collected could then be viewed repeatedly and reflected on in combination with other data sources.

Anecdotal evidences are written accounts of observations taken directly after an incident occurred, and include contextualised information related to the setting and short explanations as well as reporting the facts of who did what and so on. For this study written documentation was collected to complement information from the photographic documentation, by teasing out those interactions among students, adults and students, and between students and the environment, that promoted active play and that could not be captured in the imagery. This research technique, in which no direct questions needed to be asked, but in which individuals and their behaviours could be observed, helped to capture active play in action, without children feeling observed and therefore likely capturing unrehearsed moments.

Photo documentation for the purpose of this study focused on taking photos of all areas within the early years contexts. These were taken throughout each on- site visit, starting from arrival at the setting all the way throughout the school day. Taking photos on different occasions of the day helped to ensure that no children were captured within the images, and it also gave the researcher time to explore the spaces in more detail. The actual built setting and the available indoor environments, as well as the outdoor spaces available on site, were valued as being conducive to active play. Photos

of active play sources and equipment were taken to record which types of sources were available, and the number of active play resources available to children. In addition, photo documentation helped to record the state in which active play equipment was kept, and whether resources required further maintenance and fixing to ensure the children's safety.

Observational documentation was used to complement the information initially recorded in the photo documentation by allowing me to extract further details that were perceived visually from being around students and that focused on students, an element not captured in photo documentation. Observational documentation thus focused on detailing those interactions among students, as well as on orally listening to children interacting with classmates, other adults on site and students expressing their thoughts, ideas and feelings when engaging with the physical environment of the early years setting. Valuable information was also retrieved from observing educators, who exhibited pride in showing what wonderful toys they had for children to play with, a sentiment that they expressed during informal conversations.

4.18. Types of interviews

Attempts to understand the world from the participants' point of view requires a highly relational approach to data gathering. In qualitative studies interviews are oftentimes used to unfold the meaning of people's lived experiences (DeJonckheere & Vaughn, 2018), and to encourage interviewees to share their thoughts, ideas and subjective information about a particular topic, experience, or phenomenon. Essential to gathering information via interviews, and important to this study, was that key information related to the contextualised understanding of the phenomenon came directly from participants. Conducting interviews thus helped to obtain in-depth information in relation to early years educators' understandings of the term active play (Research Question 1) and led to a profound appreciation of educators' values and beliefs regarding the importance of active play for children's health and wellbeing. Different types of interviews used across research are now explored in more detail.

4.19. Narrative interview

Narrative interviews are stories based on the unfolding of events or actions told from the perspective of a participant's life experiences. Researchers use narrative interviews to gain insights into participants' life stories that are altered by a phenomenon (Thunberg, 2022). In narrative interviews the participant guides the interview and may share information that could not have been predicted in other structured or semi-structured interviews. The unstructured approach to interviewing yields wide and deep themes, with the lengthy nature of narrative interviews making it more difficult for the researcher to analyse the information gathered.

4.20. Structured interviews

In structured interviews the researcher follows a rather strict set of questions in a predetermined way. Questions posed offer participants only limited options to respond, and the questions asked control the data elicited by the participant tightly (McGrath et al., 2019). Interviews so rigorously structured can often times can be found in the form of telephone interviews or interviews in malls or public places. These standardised and straightforward questions typically address larger numbers of participants where the researcher asks the same set of questions for the purpose of consistency.

4.21. Semi-structured interviews

Semi-structured interviews aim at gathering information from key participants who have personal experiences, attitudes, perceptions, and beliefs related to the topic of interest. To collect qualitative, open-ended data, questions focus on exploring participants' thoughts, feelings, and beliefs about a particular topic. This sometimes leads to the researcher delving deeply into personal and sometimes sensitive issues (DeJonckheere & Vaughn, 2018). In this process, the researcher structures and sets the outline for the topics covered. The responses by the participants though determine the way in which the interview is directed (Stuckey, 2016). Often, semi- structured interviews are preceded by on-site observations and informal interviewing that allows researchers to develop a keen understanding of the topic of interest. To ensure that the

information shared is relevant and meaningful, the researcher follows a flexible order of asking questions, with questions being predominantly open-ended questions (Stuckey, 2016).

Given my appreciation that educators were responsible for teaching and engaging with children, the semi-structured interviews were negotiated as part of the full day visit to the services and were usually conducted after the regular school hours to maintain the regular school routine (see Appendix B – Example questions for semi-structured interviews). Interviews lasted approximately 60 minutes and, with the participant's consent were audio-recorded. In order to gain a deeper and more nuanced understanding of active play practices as evidenced from within the immediate environment of the early years setting a set of pre-determined questions was developed and used as a guide to facilitate each interview, with more in-depth questions evolving and emerging throughout the course of the interview. This approach supported the process of gaining insights into daily routines at the early years settings while learning about challenges faced that impacted on practices of active play. For example, discussing spaces and resources conducive to active play, led to one educator explaining that they found it challenging to find someone to fix properly the trampoline that had been used by children only for two months before it had broken. Another example where the initial discussion led to the educator elaborating on another important element was, when Kate mentioned the challenges that children with special needs, such as autism, were facing when engaging in active play and the need for the educators to work in small groups with the children to ensure that every child at the setting had the opportunity to be physically active.

Finally, as part of the interview, there were opportunities to share photographic-documentation (Gesso, 2022) and reflections from written documentation gathered during the day with the educators. This led to the educators sharing more details related to their practice and lived experiences. More nuanced details emerged that were related to the educators' understandings, beliefs and practices related to active play and practices of active play offered at the setting, exploring further details of factors either facilitating or impacting negatively on children's active play experiences.

What was not initially intended, but that developed while taking the photographs, was a discourse between the educator and the researcher about the safety of certain items, plans to replace some of the toys, the appropriateness of some toys and the preferences expressed by the children. It also highlighted the educators' awareness of keeping toys well maintained in order to offer children the best possible opportunities to use those toys independently and safely.

The end of the interviews concluded the on-site visit. Following the on-site visit, each audio recording was transferred, stored and transcribed on my personal computer, with a back-up copy saved on my external hard-drive. A separate folder was dedicated to each setting and labelled with a pseudonym. Pseudonyms were used to ensure the educators' anonymity throughout the entire data collection and data analysis process. Using pseudonyms also reinforced that the collected data were handled confidentially yet still accessible for research purposes.

4.22. Data analysis

The data collected in qualitative research commonly undergoes a systematic process of searching, arranging, and organising information. The goal of analysing qualitative data is to condense the information into a manageable number by identifying patterns or themes that are significant to the study. Meaning drawn from data, subsequently helps to build a logical chain of evidence (Patton, 2002). Using an inductive reasoning process supports moving from concrete observations to broader conclusions. This approach helps to interpret and structure the meanings that derived from the data. Qualitative data analysis is commonly based on an interpretivist paradigm where the researcher works closely with the participants to gain a contextualised understanding, with the intent being to examine the context-specific content of qualitative data (Yanow & Schwartz-Shea, 2009). This was important as participants' views were themselves the data with which this researcher worked, as it was their contextualised knowledge and their situated meaning or sense-making related to active play that were of interest to this research (Yanow & Schwartz-Shea, 2009).

The volume of raw information or the sifting of relevant information thus helps to identify significant patterns and to construct a framework for communicating the essence of what the data reveals (Finch, & Lewis, 2003). The most commonly used methods to analyse qualitative data include content analysis, narrative analysis, discourse analysis, grounded theory and thematic analysis (Gillham, 2000). Researchers are encouraged to understand the method that is suitable for their study.

An important decision made for this study was to embark on the analysis phase of the research by acknowledging that the research was located within an interpretive paradigm. With this in mind analysis was founded on the assumption that social reality is not singular or objective but shaped by human lived experiences and social contexts (ontology). The case was therefore best understood to be within a context where the subjective interpretations of participants involved were valued (epistemology). Following an interpretive paradigm thus meant viewing social reality as being embedded within and impossible to abstract from the social settings. Reality was therefore interpreted through a sense-making process rather than through a hypothesis testing process. Celebrating the idiosyncratic nature of each setting and the micro-environment was valued over cross-comparing data from each case, as it offered a rich contextual insights into each setting. This is explored in more detail in Chapters 5,6 and 7.

The following part of the analysis then explored key elements of Research Questions 1, 2 and 3 as these questions applied to each educator and early years setting. The data that informed this part of each chapter were gained from reading and re-reading the transcripts to gain a general understanding. This helped then to collate the transcriptions into sets of themes that would address each research question.

Initially data were divided into the following broad categories:

i. Background and personal details of the educator and demographics of the setting

This theme linked closely to the data that informed Research Question 1 and drew on data collected using the environmental scan (Active Play Audit Tool) and semi-structured interviews. This section included details such as demographics, information

about the educator, the early childhood setting, the neighbourhood and the local community. This information also included background information relating to educators' history of physical activity and examples of places or incidents that influenced the educators' beliefs and values in framing their decisions about supporting active play.

ii. Active play practices and active play environments

Themes in this category (see Table 1 Thematic categories of data analysis) referred to Research Question 2 and drew on data collected using photo-documentation and semi-structured interviews. Themes identified referred to the physical environment, such as the built structure, which included the indoor and outdoor spaces where active play was supported. Other elements of the physical environment included fixed and portable active play resources. Themes explored further included ways that educators facilitated active play at the setting.

iii. Factors, barriers and affordances influencing active play practices and educators' support for their children to engage in active play at the early years setting This theme linked closely to the data that informed Research Question 3. Data collected via semi-structured interviews included educators discussing determinants unique to the setting. The focus was on exploring the factors that impacted on children's opportunities to be physically active. Reference was made to the temporal environment, such as the timetable, nap time, mealtimes, and the human/social environment, which included class composition, teacher to child ratio, and parent involvement, perceived risks, available and safe spaces for children to be physically active, and children's health and wellbeing impacting on children's opportunities to be physically active. Educators also referred to factors that influenced their decision-making pertaining to these determinants. Data gathered helped to gain deeper insights into the idiosyncratic nature of the early years setting.

The adopted approach to data analysis chosen for this study was therefore in alignment with the research goals and the research questions and with efforts to generate deep and rich data about, and insights into, the complexity of physically active play in early years settings in Colombo, Sri Lanka. Considering that the researcher approached the phenomenon being studied with a number of his own lived active experiences, beliefs

and values regarding the importance of active play, attention was given to the researcher's perspective in the meaning-making process.

Analysing the data thus required the researcher to follow a systematic and rigorous approach (Yanow & Schwartz-Shea, 2009). Data collected, while analysed thematically, were context specific owing to the intensive case studies conducted in multiple sites. Consistent reference to the EMC model was therefore imperative to capture the contextualised findings of each respective setting. The analysis of the semi-structured interviews is now be explored in more depth.

4.23. Analysis of semi-structured interviews

The semi-structured interviews, which had initially been transcribed using a denaturalised approach (grammar was corrected, interview noise, such as stutters, pauses, etc., was removed and nonstandard accents were standardised) (Davidson, 2009; Oliver et al., 2005), were analysed thematically. Each interview was coded using an inductive approach to search for and identify the recurring themes outlined within the conceptual framework. The case studies conducted at multiple sites required that the findings from each setting were contextualised, yielding nuanced details related to the phenomenon of active play unique to each setting.

Initial coding of keywords focused on enablers and barriers in relation to active play practices and educational philosophies in relation to active play, as well as currently unanticipated themes. Another strand of coding inquired into the contextualised influences that acted upon early years educators' ability to implement active play within the microsystem of the early years setting (see Table 1 Thematic categories of data analysis). Employing the socio-ecological framework thus helped to support the analysis in terms of informing key themes and helped to make sense of factors from the range of interrelated systems that were impacting on educators' understandings, beliefs ,and practices.

During the process of transcribing, reading, and re-reading, analysing and interpreting a number of themes emerged. Themes were identified as relevant if they

contributed to in-forming the overarching research questions and added value to the meaning-making process of the phenomenon being studied (Braun, 2006; Evans, 2018). Commonly, a theme appeared more than once, but the frequency of instances of a theme did not automatically determine how important a theme was (Braun, 2006). The importance or significance of a theme was bound to the context within which it was situated.

Considering the intensive case study approach chosen, the themes found in this study were contextualised to capture deep insights into educator's understandings, beliefs and practices related to active play. Themes were identified across levels of influence, one being the immediate environment of the early years setting (micro- level). Other themes were identified across broader levels of influence, such as the meso- or macro-level. This approach was used for each early years setting to accentuate the nuances of each context. Themes identified across levels of influence are now explored in more detail.

Elements located at the micro-level that emerged via the semi-structured interviews included aspects such as the physical/social/temporal environment. Introducing elements of the social environment at the beginning of each data analysis chapter was understood to offer the reader a clear context, which would thus bring to light the contextualised information and facilitate an understanding of the idiosyncratic nature of the information presented. For example, subcategories of the social environment included background information about the educator, and their values and beliefs, as well as about the class composition and the teacher/student ratio. Features of the temporal environment then included, for example, the classroom timetables and time dedicated to nap time or break time, as well as and the school hours offered based on whether the setting offered an extended school day or ended at the end of the regular academic school day (Evans, 2018). The focus of the physical environment included the indoor and outdoor spaces that were conducive to physical activity and active play, as well as the active play resources available at the setting.

Other, broader data were located across the meso- system. Information located in the meso-system included collaboration and communication between the educator

and the parents, as well as the parents' concerns, beliefs, and expectations. For example, Kate explained how Sri Lankan parents who believed in preparing children for formal schooling shared their concerns directly with Kate in person. Sandra explained that she did not perceive any factors located at the meso-level as impacting on active play practices at her setting. Adititya, on the other hand, noticed that parental support for active play was a factor that impacted on children's participation in active play at Montessori Early Years. While each case is explored in more depth in Chapters 5,6 and 7, these brief insights show that the themes identified were closely link to the context within which they were located.

Similarly, the factors located within the macrosystem were contextualised. Common themes and factors of influence identified across the setting included cultural values, socioeconomic issues, customs and cultures, and cultural events, such as the celebration of the Sinhala and Tamil New Year. Other factors include political issues, physical environments, sociocultural status, and access to resources (Brown, 2012). These are explored in more depth in Chapters 5,6 and 7 accordingly.

4.24. Trustworthiness and measures of rigour

In qualitative research, trustworthiness refers to the degree of confidence in the data collected, the approaches to analysing and interpreting the information, and the methods used to ensure the quality of a study (Pilot & Beck, 2014; Adler, 2022). While there is a general consensus on the need for trustworthiness, debates have been waged in the literature as to what constitutes trustworthiness (Leung, 2015). While there have been numerous attempts to specify how trust can be achieved, and recommendations on how to achieve trustworthiness in qualitative research have been explored, there is no exact procedure on how to achieve it.

Table 1

Thematic categories of data analysis

Broad Categories	Sub-Categories
Background and demographics	Age, gender, individual details
Idiosyncratic nature of the early years Setting	Physical environment (built structure, fixed and portable equipment, indoor and outdoor spaces) Temporal environment (timetable, nap time, mealtimes, after school program) Human/social environment (class composition, teacher to child ratio, parent involvement)
Physical activity and active play Practices	Structured and unstructured opportunities for children to engage in physical activity and active play
Factors, barriers and affordances	Unique to each setting, availability of time, weather conditions, available and safe spaces for children, parent involvement, children's health and well being

4.25. Design of this study

The strength and trustworthiness of this study were determined by the appropriateness of the methodologies chosen to explore the phenomenon of active play and to inform the research questions (Baxter & Jack, 2008). The goal of this research was to explore each case in a specific time and to acknowledge the interpersonal context within which participants were located within and the detailed insights provided into the world of educators and early years settings.

A criticism related to qualitative research, in particular those studies committed to interpretivist research, has been the lack of rigour (Schwandt, 2007). To overcome this, this study opted for a solution beyond the conventional two-dimensional concepts of validity and reliability. Instead, the approach adopted for this study followed another set of criteria for establishing trustworthiness as a measure of rigour (Richardson, 2000; Adler, 2022). The three strategies employed for this research were (Guillemin & Gillam, 2004; Seale, 2002):

1. learning the context and ethical co-construction;

2. conscious reflexivity; and

3. prolonged engagement.

4.26. Learning about and in context and ethical co-construction

Understanding the context and building meaning via ethical co-construction were valued as ways to acknowledge the voices of the participants, and to offer opportunities to them to share their expertise with the researcher (Guldberg et al., 2017; Parsons, 2021). The intent was to gain a better appreciation of each early years setting and of the educator. Ethical co-construction was seen as pre-eminent during the semi-structured interviews, whereby the educator and the participant worked in collaboration to construct contextualised meaning. Acknowledging the educators as the experts within their micro-environments allowed rich description to be achieved. Meaning constructed thus contributed to achieving the goals of this study (Hussein, 2009), these being, to provide rich, in-depth information that would allow the researcher to become familiar with, and to develop a deeper, more profound understanding of, early years educators' understandings, beliefs, and practices regarding active play. When explaining the intent of my study to the participants, I found that the process of ethical co-construction also enabled me as the researcher to acknowledge my own values, beliefs and assumptions.

4.27. Conscious reflexivity

During the period of data analysis, the process of employing conscious reflexivity was understood as an appropriate tool to help to heighten my interpretive awareness of the information collected, and to appreciate the contextualised and idiosyncratic nature within which it was embedded. This element of personal self-reflection and co-construction of meaning with my supervisors (Guillemin & Gillam, 2004; Verlaine, 2022) was understood as the collective voices of self and others helping to strengthen my argument for making meaning, with constructive criticism supporting the process of evaluating and interpreting the data collected from a number of data collection

points. This was important in appreciating that the information shared by the participants was a unique and authentic source of information (Finlay, 2003).

4.28. Prolonged engagement

Researcher bias and assumptions related to the field being studied are always present in the research. Qualitative research is too subtle to separate researchers' efforts. In fact, qualitative research needs researchers' values and passion as engagement with research. Being immersed in the research creates a level of trust. Prolonged engagement, at least for the duration of the study has long been recognised as desirable in creating trustworthiness. Researchers who engage on the site, and with the participants, as well as with the contextual nuances of the setting become deeply familiar with the context.

Prolonged engagement for the purpose of this study was understood to take into consideration the early phase of establishing an initial contact with potential participants via email and phone conversations. These approaches were valued for their opportunity to build trusting relationships. Initial visits to the early years setting, prior to the actual on-site observation, further helped to establish mutual terms of collaboration. Only once the foundation was established was I invited into the early years learning setting.

Immersing myself in the participant's world (Bitsch, 2005) then helped me to gain insights into the context of each case. Being allowed to enter the micro-environment of the early years setting demonstrated a certain degree of trust by the educators, as they allowed me to enter their unique environment. Being on-site for an entire school day offered an extended period of time to develop further the pre-established trust with the participants. Despite my initial intention to visit early years settings on three different occasions to observe them at different times of the day, owing to the shortened days for children in the early years and also to the extended absences from my own workplace, prolonged engagement referred to spending one entire day at each early years setting, rather than visiting those settings multiple times.

4.29. Delimitations and limitations of the study

This section discusses the delimitations and limitations of the study. This study

focused particularly on educators' understandings of the term 'active play', their values of and beliefs about the importance of active play, and their efforts made to offer practices of active play in early years settings. While acknowledging that the educator was understood to be a significant adult in a child's life, who had the potential to influence children's active play behaviours, using a social ecological approach helped to identify other important adults and environments. For example, the parents and the home environment were seen as likely to impact on children's active play.

4.30. Contextualised delimitations

It was understood that conducting the research with only a small number of early years educators meant that the information presented was very contextualised, nuanced and confined to particular and unique settings. After close consideration, only three of the seven settings were chosen for a contextualised analysis, as these were understood to offer recurring themes that best informed this study and that contributed to a deeper understanding of the phenomenon of active play. In choosing only three cases, the researcher was aware that the findings presented were of a contextualised and idiosyncratic nature. Details presented were confined to the immediate environment of the educational setting. The intention was to raise awareness of the phenomenon, and to provide rich insights into the idiosyncratic character of each context to enable the reader to relate to and transfer the contextualised information to other settings (naturalistic generalisation).

The decision made by the researcher to spend a day at each setting proved to be invaluable in providing deeper insights into the phenomenon of active play. The decision to conduct a one-day visit, rather than multiple visits, evolved as a consequence of the researcher being a full-time teacher himself, which required flexible working hours on those days that on-site visits at other early years settings were conducted. Added to this was that regular school hours through-out the early years settings visited did not allow a staggered approach to investigation, as children generally left the setting around 12:00 pm before either going home or entering the afterschool care/day care program. While these visits offered valuable information, it was only a snapshot of that particular

moment in time. Inquiring into active play practices in the afterschool care program or inquiring into social ecological influences beyond the early years environment was beyond the scope of this study.

4.31. Limitations related to data collection

It is important to highlight that the data were collected during the months of March and April 2018. In Sri Lanka, this period is commonly the hottest of the year, with temperatures rising above 30°C and humidity levels surpassing 80-90 per cent.

In addition, throughout the months of March and April, Sri Lanka celebrates Sinhala and Tamil New Year, with this being the most significant cultural event for the country. Each educational early years setting dedicated a significant amount of time to preparing children for the New Year's performances. Conducting the research during this crucial time of the year was faced with the reality that certain parts of the day were spent singing songs, practising performances and preparing for the nation-wide event.

4.32. Overcoming the limitations

In preparation for the semi-structured interviews, several steps were taken to help to overcome the limitations. Considering that interviews were conducted on the same day of the on-site visit, there was only a limited amount of time available to build rapport throughout the day of the on-site visit. Building a trusting relationship was therefore understood to start during the preliminary, pre-visit phase, but continued throughout the on-site visit. Developing a foundation of trust was therefore seen as significantly influencing the potential of obtaining deeper insights into the educator's understandings, beliefs, and practices.

To gain the educators' trust and respect, I contacted the educators personally. In some cases, as I noted above, an initial meeting was organised to introduce myself and to reinforce my professionalism as the researcher, establish an early rapport and demonstrate the authenticity of my study. This was then followed by requesting the educators' consent to conduct research, arranging interview dates and times, and finding a suitable space to conduct and record the interview session. Agreeing upon a

reasonable location was important in ensuring that the space would lend itself to minimal interruptions and would help to preserve the privacy of the confidential information shared. Final consideration was then given to the availability of both the researcher and the educator, especially as both were working full-time as teachers. Throughout the entire process, I reassured the educators that they had the right to withdraw freely from the study at any given time, without any kind of penalty or putting them out of countenance.

4.33. Summary of the chapter

This chapter was shaped by the underpinning understanding that meaning- making is contextualised. With early years settings being places where children spend a significant amount of their time, these settings are key environments to foster physically active play behaviours. Located in the immediate environment of the setting is the educator, who is a significant influence in supporting practices of active play. For this reason, it was important that the focus of this study was the strategic decisions to employ data collection tools that would best afford a detailed under-standing of the educator and the environment of the early years setting. This chapter detailed the epistemological, ontological, and axiological positioning of the researcher, and how this impacted on my choice of data collection tools. A rationale was offered for adopting an interpretivist approach, that being to understand better the complex and interrelated factors that influence an educator's practices of active play in her or his unique micro- context of the early years setting (Denzin & Lincoln, 2008; Schwandt, 2000). This chapter then offered a rationale for the research methods adopted for exploring and understanding the phenomenon, particularly the use of semi-structured interviews to help to illuminate the meaning-making process of educators (Warr, 2004).

Chapter 5 now presents the first of three analyses chapters and introduces Kate and the Mountain Early Years setting. Each analysis chapter focuses on analysing and interpreting findings derived from the environmental scan (ACT) and the semi- structured interviews. The aim of Chapter 5 is to move through the unfamiliar territory of the micro-environment of Kate's early years setting, better understanding the factors impacting on

the educator’s support for active play with the children at the setting.

CHAPTER 5: KATE AND THE MOUNTAIN EARLY YEARS SETTING

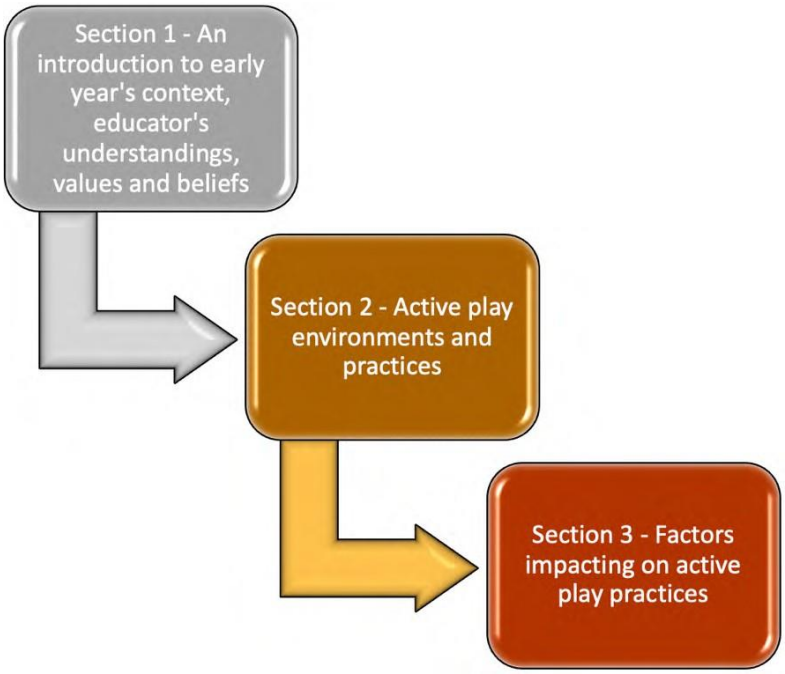
5.1. Overview of the chapter

Earlier chapters outlined the research problem and the goals of the study, the principal goal of which was to investigate comprehensively the factors that impacted on early years educators' decision-making, values, and practices regarding active play facilitation in early years settings (catering to 3-5-year-old children) in Colombo, Sri Lanka. A review of existing literature related to the phenomenon of active play, the importance of physical activity, and factors impacting on the pedagogical decision-making of educators was presented in Chapter 2. Chapter 3 then outlined the conceptual framework, the Educator Micro-Context [EMC] model, used for this study, with Chapter 4 explaining the methodological decision-making for this study, providing a strong rationale for each methodological approach chosen in facilitating opportunities to gain a contextualised understanding of the phenomenon (an intrinsic case study approach).

Chapter 5 is the first of three data analysis chapters that interpret and share key findings and unique contextual details of educators' practices and their settings. The advanced organiser helps to structure Chapter 5 by signposting the main sections of this chapter (see Figure 12 Advanced organiser structuring Chapters 5-7). Each chapter draws on theory and the contextualised data collected at the site level, and employs, applies and regularly makes reference to a dedicated EMC model for that setting (see Figure 15 The EMC model of Mountain Early Years), which was included at the beginning of this chapter. In chapter 5, the dedicated EMC model helped to capture the idiosyncratic nature of the factors that influenced Kate's understandings, beliefs and practices related to active play. Using the EMC model also helped to make sense of the complex set of interconnecting environments (physical, social, temporal, cultural) and systems (micro-, meso-, chrono-, macro-levels) that impacted on Kate's decision-making, either supporting and/or limiting children's access to active play experiences within the specific early years setting.

Figure 12

Advanced organiser structuring Chapters 5-7



5.2. Kate's early years setting

5.2.1. Introducing Kate and the Mountain Early Years setting

This section of Chapter 5 provides a detailed profile of the micro-environment that helps to create a contextualised appreciation of Kate and the Mountain Early Years setting. Information about Kate includes details of her background, educational profile, and educational philosophy. This description is followed by an environmental scan of the physical setting of Mountain Early Years, including its facilities and surrounding community context.

5.2.2. Kate's background

Kate (age 51), from New Jersey, USA, has spent her adult life in the San Francisco Bay area. She graduated from the University of California, Berkeley with a Bachelor of Psychology degree, with an emphasis on child development, and later went on to commence a Master's degree in early childhood education. Unfortunately, her move to Sri Lanka in 1989 interrupted her study, and she did not complete this degree. At the time of the data gathering, Kate had 27 years' teaching experience, working in a

range of contexts, including a pre-school day care centre in East Bay in the Auckland Hills area in New Zealand, before moving to Sri Lanka, where she moved into the role of teacher, Director, and founder of Mountain Early Years.

Throughout her extensive career as an early years educator in a range of contexts, Kate developed a strong educational belief system that shaped and guided her understandings and practices related to what would constitute developmentally appropriate teaching and learning. During my conversations with Kate, she reinforced her strong belief in "children being stimulated with age-appropriate activities to support the development of the whole child with ample opportunities to explore and reach their potential in a safe and accepting environment".

Kate's educational beliefs entailed two essential components: i) exposing children to learning that is developmentally appropriate and focusing on the holistic development of the child; and ii) children learning within a safe, caring and nurturing environment. These components were understood to be essential for each child to reach their fullest potential. Exploring these elements in more detail helped to gain a richer understanding of Kate's contextualised decision-making regarding which physical environment/setting was suitable for, and which educational curriculum was to be followed at Mountain Early Years.

Stemming from her belief that children should have opportunities to engage in practical and meaningful activities and to use their creativity to guide their learning, Kate decided that adopting a play-based teaching and learning program was suitable, as it provided children with a range of hands-on learning opportunities. These experiences supported each child in developing independence and in making choices that nurtured their unique needs. For example, Kate believed in child agency and the importance of children being free to try out new things, such as jumping around, running in the garden, interacting with classmates, singing, dancing, and having fun. Kate was convinced that following a play-based approach at Mountain Early Years best reflected her valuing of and belief in offering children a stimulating learning environment. These features of Kate's belief system and background were captured within the microsystem of Mountain Early Years EMC model (see Figure 15 The microsystem of

the EMC model of Mountain Early Years setting).

Kate understood that for children to benefit from ample opportunities for age-appropriate learning engagements, they needed to be surrounded by a stimulating learning environment. An example of these types of outdoor environments is evidenced in Figure 25 that shows the main grassed play area where Kate's prioritising and valuing of a physically safe and nurturing environment reflected the importance, that she placed on supporting children's learning.

Kate valued that physically stimulating environments formed the foundation for a social-emotionally safe environment that set children up for success and for building strong and unique individuals. Kate reinforced that it was important that the early learning environment was one that facilitated students' sense of confidence and risk-taking, whereby they could be themselves and express their feelings of joy and of sadness. Such an environment was seen as helping to create the foundation of building trust and long-lasting relationships with others.

In addition to the social-emotional safety, Kate believed that the physical spaces at the setting needed to provide children with the opportunity to move around freely, and to be exposed to minimal risk of becoming physically injured. The physical safety of the children was a set requirement for Kate that had to be maintained at all times. The interrelationship between Kate's beliefs and the pressure coming from the meso-environment led to her making significant changes but, since the program had been running for such a long time, parents were sending their children to Kate's setting specifically because Kate was offering the children opportunities to be physically active. Parents valued the setting at Mountain Early Years for offering those characteristics valued by Kate (further details are provided in Section 5.2.3 Introducing the Mountain Early Years setting).

In her role as an educator, Kate valued being a significant adult in the lives of the young children at the setting who provided developmentally appropriate learning environments, and who was a facilitator and role model to students in building strong relationships. The objective was to create a community at Mountain Early Years that

was founded on empathy, acceptance, and support. Kate saw herself and other educators as key figures at the micro-level of the setting who created a nurturing environment and caring individuals who would learn how to acknowledge and appreciate one another within the unique social environment that existed at Mountain Early Years.

5.2.3. Introducing the Mountain Early Years setting

The idea of opening an early years setting came to Kate after two years in Sri Lanka. Kate initially decided to establish an early years setting that catered to children two to six years of age (independent of their cultural, linguistic, physical and cognitive abilities), and that offered a learning environment that incorporated the principles of a play-based curriculum. The early years setting expanded rapidly from a small number of children to currently 70 children across a range of ages, from Toddlers (20 months to 2 years 11 months old) and Preschoolers (children 3 years to 3 years 11 months old), to Pre-Kindergarten and Kindergarten (children 4 to 6 years old). With an increase in the numbers of students, Kate had to relocate Mountain Early Years to its present setting, where she employs 20 staff members: eight teachers and 12 teaching assistants. This detail is captured within the micro-environment in the EMC model for Mountain Early Years (see Figure 15 The EMC model of Mountain Early Years setting). While all eight teachers held teaching certificates from a local vocational training program, three also held an advanced diploma in preschool teaching with a focus on child psychology. One of the teachers also held an elementary teaching certificate to Grade 3. Out of the 12 teaching assistants, three were enrolled in a preschool teaching program, while the other nine underwent on-site training conducted by Kate. In her position as Founder/Director of Mountain Early Years, Kate requested that all staff members held a first-aid certificate in order to be eligible to work at the setting. Further, it was an expectation that all staff members continued to engage in ongoing professional development, particularly focused on special needs teaching and child development, that Kate conducted and supported herself.

This early years setting openly welcomed families from a range of diverse backgrounds. Families from a range of social classes, from the local Sri Lankan community to the wealthy Sri Lankan families, and expatriate families brought their children

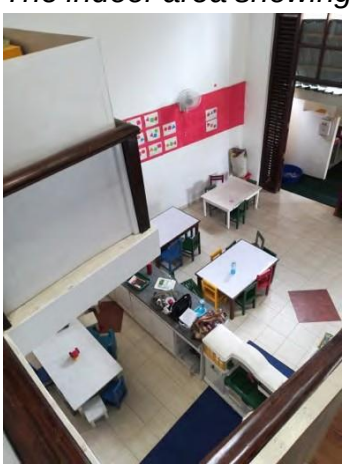
to the setting. It was common for the Sri Lankan families to keep their children at Mountain Early Years until they transitioned to a Sri Lankan state school in Grade 1. Mountain Early Years was located in a quiet neighbourhood of Sri Jayawardenapura, Kotte, Colombo, surrounded by side streets, family homes and limited traffic. The micro- environment of the early years setting offered a variety of spaces allocated to the indoors (see Figure 13 The indoor area showing the available learning spaces) and the outdoors (see Figure 16 The outdoor environment showing the main grassed play area), mainly used for outdoor play. The indoor spaces served multiple purposes, such as supporting the sedentary learning activities of arts and crafts or more formal learning areas, and places available for mealtimes, as well as bathroom facilities.

The next subsection of this chapter presents an overview of the indoor and outdoor environment of Mountain Early Years. The intent is to offer a glimpse into and an understanding of the setting and its surroundings. Later in the chapter, a dedicated section (see Section 5.4) addresses those particular environments that afforded opportunities for active play and addresses how those environments impacted on and were influenced by an educator's beliefs, understandings and backgrounds. The discussion now explores more specifically the physical environment of Mountain Early Years.

5.2.3.1. Indoor environment. The indoor environment included an array of open spaces, stretched out over 10 rooms and two floors, connected via a U-shaped wooden staircase. With its high ceilings, the indoor environment created a feeling of openness and flow between the first and the second floors, while offering clear visibility throughout the indoor environment. On the ground floor was the main classroom and teaching space. Tables, chairs and shelves were arranged in a way that children could engage in small group learning in dedicated spaces (see Figure 13 The indoor area showing the available learning spaces). This type of learning included fine motor skills activities, such as sewing with beads, drawing with chalk and learning to write and hold a pencil correctly.

Figure 13

The indoor area showing the available learning spaces



A smaller room, which was separate from the main area on the ground floor, was used to hold classroom-specific morning meetings (see Figure 14 Padded classroom on the lower floor). This space was located to the side of the playground, next to the area dedicated to the swings. Having wide windows enabled natural light to flow inside and to light up the room throughout the day. Whilst this room was an independent learning space, the door had been taken out to ensure free access for the children to the room. Soft rubber flooring (in the form of moveable tiles) was installed as a soft seating area aligned along the wall. This was done to offer the children a comfortable space, while offering them an opportunity to be physically active when engaging in structured physical activity such as singing songs and dancing.

Figure 14

Padded classroom on the lower floor

The upper floor, visible from the ground floor, was accessible to children only via a safety gate. The rooms on the second floor were smaller in size, and appropriate

for small group learning, or for whole-class sedentary activities such as learning how to write Singhalese letters. In an attempt to offer learning opportunities to groups of four to five children, learning areas were further spread out in the corridor, as well as on the balcony. This layout included chairs and tables spread out in various parts of the second floor, with possibilities for freely flowing movement or activities.

The only available room that was separated from the other areas on the second floor was Kate's dedicated office space. From speaking to Kate, this space served as an area to communicate with parents and children. To maintain privacy, a door had been installed so that the office could be sealed off from the surrounding spaces. Kate explained that this space was mostly used in the afternoons, after the children had left, to plan learning programs and to work on administrative tasks.

5.2.3.2. The outdoor environment. A significant area of the outdoor environment was the open grassed field (see Figure 25 The grassed outdoor play area and the active play sources). Within this space two concrete paths were almost entirely surrounded by grass. A unique mountain formation had been purposefully created to support active play and was freely accessible to the children (see Figure 25 The grassed outdoor play area and the active play resources; and Figure 16 The outdoor area showing the mountain structure and the car tyres). Off to the side of the mountain formation was a set of monkey bars permanently fixed into the ground. Between two trees a ladder had been set up and functioned as a climbing frame. For the purpose of stability, the ladder was attached to the brick wall. The back of the brick wall was transformed into a climbing wall, with several grips being securely attached to afford children the opportunity to use their hands and legs to climb down again (see Figure 18 Climbing wall located between two trees and a path for tricycles and scooters).

Located at the back of the setting and close to the swings (see Figure 18 Sand box and fenced in swings) was a built-in sand box for small group sand play. Next to the sand box, but fenced in via a gate, were a swing made out of a big car tyre, and a pre- fabricated four-seater swing. A concrete wall marked off the outside area of the entire setting. As well as the fixed outdoor equipment, the service provided a range of portable gross

motor resources in the outdoor environment. These resources included small playhouses, push cars, loose slides and trucks that were located on the main grassed field. Other toys were located in the sand play area and served the purpose of fine motor skills development. These included sand toys, such as shovels and diggers.

An awareness of the spaces available to the children and educators offered an appreciation of the potential that the physical environment had in affording opportunities for active play experiences. Further, exploring the location of the Mountain Early Years context, the demographics of the families attending the setting, the composition of the teaching team and the physical characteristics of the setting offered insights into the unique and idiosyncratic nature of Kate's early learning context. These elements, including Kate's own pedagogical approaches, beliefs, and perspectives about active play, were captured within the EMC model for the Mountain Early Years setting (see Figure 15 The EMC model of Mountain Early Years setting). The information that follows offers further ecological insights into the factors located at an individual level that impacted on the phenomenon of active play in this early year setting, particularly in terms of facilitating as well as challenging Kate's support for active play practices and environments.

5.3. Kate's understandings, values and beliefs about active play in the early years

Educators' understandings, values, and beliefs about the subjects that they teach have been identified as influencing their support and time afforded for these practices within the curriculum (Goodman-Schanz, 2012), and as such "underpin their observable behaviour" (Burns, 1992, p. 57). The existing literature in the field of early years education reinforces that educators' beliefs and values related to the importance of active play are significant and pervasive factors impacting on their decision-making and practices directed at facilitating as well as inhibiting active play environments at the micro-level of the early years setting (Gunnarsdottir, 2014; Lynch & Soukup, 2017). Further, the literature confirms that those educators who value being physically active in

their own lives are more likely to appreciate and therefore privilege opportunities for children to engage in active play (Carson et al., 2015; Goodman-Schanz, 2012). Given this, the focus of this section of each data chapter brings to the surface contextual insights into early years educators' understandings of and beliefs about active play practices in their early years settings in Colombo, Sri Lanka (aligned with Research Question 1)

Viewing Kate's understandings, values and beliefs related to active play through the lens of the EMC model helped to understand the idiosyncratic nature of Kate's background, particularly her experiences in sports, and the impact that this had on influencing her decision-making about and support for active play at Mountain Early Years. Interestingly, from conversations with Kate, it became evident that her background and her own experiences in physical activity increased her confidence in creating opportunities and providing environments that were conducive to active play. For example, Kate's past engagement in a variety of sports throughout her life included running, weightlifting, and swimming. This allowed her to maintain a healthy lifestyle, and to continue to engage actively with children at the setting. During morning circle time, she enjoyed interacting with children in movement activities, and in the outdoor environment she offered her support to children trying to swing on the monkey bars.

Kate's lived experiences in physical activity were evidenced proximally within the microsystem of the EMC model of Mountain Early Years (see Figure 15 The EMC model of Mountain Early Years setting). Kate used to be a very active person, and she valued being physically active for her own health and wellbeing. In her younger years, she enjoyed regular structured physical activity, especially swimming and more independent forms of exercise, such as weight training. "I have in my past been a swimmer. I have enjoyed running, and I have also enjoyed weight training." Unfortunately, owing to physical limitations, she had to lower the intensity of her exercise over the years. "Due to physical compromises in my back and hips, I have limited that, so now I mostly walk and do very gentle activities." At the time of the study, Kate still enjoyed going for a walk, getting to play with her puppy, going for a swim and snorkeling at the beach.

Kate's appreciation and valuing of active play translated into her educational belief system and educational philosophy. Kate appreciated active play as a valuable tool to support children's physical development, health and wellbeing. For example, as was stated by Kate, active play was understood to be beneficial to the development of children's gross and fine motor skills, and helpful in scaffolding children's thought processes, particularly developing the executive functioning necessary for problem-solving. Stimulating the body was perceived as having a positive effect on children's mental health and cognitive development. Kate appreciated that those children who engaged in active play benefited from the balance between their bodies and their minds when learning how to write.

Appreciating the uniqueness of Kate's background, and also her positionality, understandings and beliefs, provided an appreciation of the pervasiveness of those characteristics bound to the individual at the micro system level that influence active play practices and spaces. For example, Kate's valuing of children's health and well-being led to her adopting proactive measures that included, but were not restricted to, offering continuous supervision to children while being physically active (see Figure 15 The EMC Model of Mountain Early Years). Kate's background and beliefs significantly impacted on her decision-making related to the opportunities for active play experiences created and offered to children and the type of active play resources available at her setting.

5.4. Making sense of active play environments and practices at the Mountain Early Years setting

This section of the chapter now presents insights into the types of factors located within the immediate environment (micro-environment) of the setting, either directly or indirectly impacting on active play practices and spaces at Mountain Early Years. The idiosyncratic nature of the context and the bi-directionality of the forces of influence situated within the Mountain Early Years setting were captured in detail in Figure 15 (The EMC model of Mountain Early Years). For the purpose of this study (and as was referred

to in Chapter 1), active play is defined as those planned or incidental, often intrinsically motivated, gross motor, play-based learning experiences that usually include a cardiovascular, holistic health or broader developmental benefit (Lester & Russell, 2008). Taking into consideration that the focus of this study was on gaining a contextualised understanding of those practices within early years settings, active play environments have been defined as those spaces that provide children with opportunities to participate in spontaneous active play.

5.4.1. Active play environments

In appreciating that the physical environment in itself can hold the potential for providing opportunities for active play (Copeland et al., 2016; Henderson et al., 2015; Hesketh & Slujis, 2015), it was important to gain a better understanding of the idiosyncratic nature of those environments that provided active play at a contextual level at Mountain Early Years. Most opportunities for active play at Mountain Early Years were evidenced within the outdoor environment. Physical features of the outdoor environment encouraged children to engage in active play experiences, such as pushing objects, digging, lifting, carrying, planting, and chasing, all of which have been identified as potential forms of gross motor physical activity (Hyndman et al., 2016). Specific active play spaces identified in the outdoor environment were the grassed area, the mountain climb, the monkey bars, the climbing wall and ladder, the paved cement path, and the sand pit. These environments are now explored in more detail with regard to their potential in affording opportunities for young children's active play at Mountain Early Years.

5.4.1.1. The grassed area and the mountain slide. Attention is now given to the outdoor environment of the Mountain Early years setting, as this was where most active play occurred. Significant active play was observed on the grassed area and on the mountain slide (see Figure 16 Outdoor area showing the mountain structure and the car tyres). These spaces provided a safe and active play environment for the children, while offering an array of rich opportunities to develop large muscle gross motor skills, muscle control and balance.

For example, as evidenced in Figure 16 Outdoor area showing the mountain structure and the car tyres, the grassed mountain area included a concrete tunnel that was fitted under the mountain, creating a shaded area for children to retreat into. These spaces also enabled children to self-initiate running up the mountain by stepping on the car tyres, reaching the top of the mountain and then running across all the way to the two slides on top of the mountain, before sliding down. Other children enjoyed running up and down the mountain, either via the car tyres or along the grassed area of the mountain. Such short bursts of energy and unstructured active play were repeated several times during outside play time and were considered as experiences of active play as defined in this study.

Located within the grassed area of the outdoor environment was a climbing frame (see Figure 17 Ladder located between two trees; and Figure 18 Climbing wall located between two trees and a path for tricycles and scooters). On one side was a ladder, made out of wooden planks and located between two trees, securely attached to a concrete wall. Located between two trees, this space offered a shaded area for children to be physically active (note that within the Sri Lankan context and very hot climate these spaces were very important in affording shaded active play opportunities). In this environment children enjoyed climbing or crawling up the ladder and back down. This was done while an educator stood close to the climbing frame and supervised. On the other side of the climbing frame was a climbing wall, with several climbing grips for children to hold onto with their hands and to step onto with their feet. This offered children of all ages the opportunity to take risks, challenge themselves and build confidence in their physical abilities, such as pulling themselves up, and building upper body core strength to keep stable. Those children who were more confident in climbing crossed the concrete wall to climb down the climbing wall attached to the other side of the climbing frame, placing their feet and hands on the corresponding grips (see Figure 17 Ladder located between two trees).

Throughout the grassed area, a concrete path offered children the opportunity to use tricycles and push cars to go back and forth (see Figure 18 Climbing wall located between two trees and a path for tricycles and scooters). Children were observed sitting

in cars and using their feet to move along the path. At other times, older children pushed younger children who were not yet ready to manoeuvre the cars independently along the track. Given that this was a path that suited to vehicles going one way up to a certain point before having to turn back again, children were observed pushing and pulling cars off the track and onto the grassy area, and even turning cars around. These short bursts of energy were in line with Kate's valuing of children's self-direction and engagement in self-initiated forms of active play, as well as with Kate's positionality in terms of the types of experiences and resources that enabled active play within the outdoor environment (see Figure 15 The EMC model of Mountain Early Years setting).

Hidden in a corner of the outdoor play area was a u-shaped sand box (see Figure 19 Sand box and fenced in swings). This area offered an additional space for active play, including a range of resources for children to dig using shovels and small diggers. When children had to transport a greater quantity of sand, they used bigger diggers to move the sand across the grassed area. Being located between the built structure of the setting and the wall surrounding the early years setting and having trees, the sand box play area offered children a shaded space in which to play early in the morning. Play-based learning experiences in the sandpit targeted the development of fine and gross motor skills. Considering the definition of active play used in this study, those activities supporting the development of fine motor skills were not understood to fall under active play, as they did not raise the heart rate and/or involve significant gross motor movements. Activities focused on supporting gross motor skills development that raised children's heart rate, on the other hand, and that varied from light to moderate physical activity, were understood as being an active play experience.

5.4.1.2. The indoor environment. In addition to the outdoor environment, Kate saw the indoor environment as offering opportunities for active play. As was explored earlier in Section 5.2.2, the indoor environment did offer spaces for children to be physically active, such as the separate room padded with mats (see Figure 14 Padded classroom on the lower floor) situated on the ground floor, which was suitable for a small group of children at a time. However, spaces were limited, and so were opportunities for active play. The utilisation of other areas within the inside environment for active play

required the rearrangement of items, such as chairs and tables. Unfortunately, while Kate mentioned examples related to the use of the indoor environment for active play experiences, on the day of the on-site visit, such indoor practices were not observed. For example, Kate discussed the planning of teacher-guided forms of active play indoors, including the development of an indoor obstacle course created with the help of the children, who then jumped on and turned around in shapes depicted on the floor. From Kate's perspective, this obstacle course afforded opportunities for the children to engage in what she understood active play to be in the context of the setting.

5.4.2. Active play practices

Besides the unique features of the physical environment of the Mountain Early Years setting that facilitated opportunities for active play, a range of active play practices, including child-initiated as well as teacher facilitated, was observed. Active play and physical activity support by teachers were often highly guided or structured, whereas child-initiated practices referred to those practices where the child demonstrated independence in taking action and making decisions. A range of these active play practices is now shared.

5.4.2.1. Pedagogical support for and belief in child agency. Kate had a strong belief in children having multiple opportunities to access a range of materials to support free play. These details of Kate's values were identified in the microsystem of the EMC model of Mountain Early Years (see Figure 15 The EMC model of Mountain Early Years setting). Active play experiences were particularly evidenced in the outdoor environment, where Kate referred to these experiences affording child agency and independence, describing these as "Anything moveable they can access independently. And we try to put it out every day so that children can use it all the time. So, there is cars, there is carts, some wagons, and again they can – dump trucks, large dump trucks, small dump trucks."

Fixed and portable resources were also made available by the educators. These resources supported children in being physically active, and in taking ownership of their

active play in the outdoor environment (such as running, climbing, building, and moving through space). In relating Kate's response back to Research Question 2, Kate's practices were strongly influenced by her beliefs and values related to child agency and children's input within the curriculum, including freely chosen opportunities for active play.

Kate's belief in children being agents of their own active play and self-initiated active play practices (further explained in Section 5.4.2.2 Free flow play approach) was also evidenced by her facilitation of several active play practices in the indoor environment. For example, Kate shared that children were given opportunities to plan for their active play by manipulating their environment and by moving the furniture around. Kate commented that "Physical activity often occurs when children organise themselves" and elaborated that these types of experiences included children making a bus or cars out of big soft blocks, setting up obstacle courses inside, drawing various shapes on the ground, jumping on the shapes and turning around in circles. This was captured at the micro-level of the EMC model through Kate's valuing of offering children access to active play resources and encouraging them to engage in active play. However, while these experiences and practices were mentioned by Kate during our time together and during the interview, there was no evidence observed of these types of experiences occurring during the visit to the site.

Interestingly, Kate explained her understanding of what constituted active play as a mixture of fine motor skills and active play experiences. The implication of her perception and understanding of active play was that they impacted on determining the types of experiences and opportunities created and supported by herself and her early childhood team. In Kate's context, this meant that opportunities offered in the indoor environment were stated to be considered only partially as forms of active play (in terms of the definition referred to in this study).

A unique circumstance within the Mountain Early Years setting was that those children who were identified by Kate as being on track, according to their physical developmental milestones, as well as those children with special needs, were learning

together within the same micro-environment. Kate explaining that "Very often we find that children with special needs are not being much into active play". Kate approached those children either individually or in a small group, to offer further attention and support. Kate valued that her role of supporting children helped them to overcome their limited ability to make decisions, in particular as their restricted physical abilities were already found to impact on their active play experiences. Kate encouraged the children to "enjoy the simplest pleasures of active play, whether it is bending over to push a dump truck or hanging on the monkey bars". Inviting them to join in simple forms of active play in the outdoor environment was meant to expose them to activities where "They start using all of their muscles, without being too fearful". This approach of offering guidance, pedagogical support and encouragement was consistent with Kate's initial goal of creating a learning environment that would cater to a range of children, regardless of their physical, mental or cognitive abilities (see Section 5.2.2 Kate's background).

5.4.2.2. Free flow play approach. Kate's belief in offering children more opportunities to be responsible for their own active play behaviours was evidenced in the free flow play approach employed by Kate and the other early years teachers at Mountain Early Years. Free flow play (sometimes referred to as running a concurrent program) in this study was understood as children having the opportunity to move freely from the indoor to the outdoor environment and vice versa, thus offering a richer, more fluid active play learning experience. In Kate's context, this meant that, once more formal learning activities, such as writing letters and counting numbers, had been completed inside, children were free to move outside and to engage in more open-ended active play and to utilise a variety of active play materials and equipment to meet their learning needs and interests.

For example, on the day of the on-site observation, a two-year old child was observed transitioning from the inside to the outside, crawling like a bear. This child-initiated active play experience evidenced a child engaging in a spontaneous form of active play that involved short bursts of energy. This type of support for children's active play behaviour could be tracked back to Kate's valuing of children being agents of their own active play experiences (located at the micro level within the EMC model) (see Figure 15 The EMC model of Mountain Early Years setting).

5.5. Factors impacting on active play practices

A number of studies have highlighted that a range of factors can impact on educator decision-making and practices related to supporting active play (Bjørgen, 2016; Broekhuizen et al., 2014; Tarun et al., 2017). The EMC model helps to provide insights into the complexity of the context-bound factors that influenced these practices and active play environments that were provided to young children within each of the settings explored in this study. In doing so it provides insights into Research Question 3: "Which factors impacted on early childhood educators' decision-making about active play practices and environments within Colombo early years settings?" The factors and nuances of these practices and environments that were evidenced within the Mountain Early Years setting are now addressed.

5.5.1. Factors impacting on the affordances of active play practices at the micro-level

A number of context specific factors situated at the micro level of Mountain Early Years impacted on the facilitation of active play. These factors included limited space, high demand for supervision and teaching to the syllabus. Owing to their proximal nature in relation to the phenomenon, these factors significantly influenced opportunities for children to be physically active at Mountain Early Years. These factors are now explored in more depth.

5.5.1.1. The natural elements. While there were some natural elements in Kate's early learning service that were conducive to active play, a was evidenced in Figure 25, showing the main grassed play area. Kate reinforced that a wider range of natural resources would have been beneficial in creating additional opportunities for active play, particularly within the outdoor play environment. A natural element in this study was those man-made components comprising natural materials or a structure located in the outdoor environment (e.g., gardens, nature playgrounds, urban parks) or as a naturally occurring environment (such as meadows, bushes and beaches) (Tremblay et al., 2015). One natural element that Kate identified as missing from her outdoor setting was the

presence of trees suitable to support children's climbing.

As was referred to in Kate's history, and sharing of her own childhood and background, she had experienced the value of natural resources and elements, including her previous experience in early childhood settings. Given this experience, Kate appreciated the features of natural elements as being important, especially with regard to the value that they contributed to supporting gross motor opportunities and children's ability to engage in risk-taking. "In our previous place, we did have one tree that children were able to climb and I made a tree house. So, in this garden, there is not so much of an option because we are bounded by a road on two sides and another house on another side." In her effort to overcome the barrier of having limited natural resources or materials in her current workplace, Kate compensated for by being proactive and installing a built mount as an alternative resource to support climbing (see Figure 15 Outdoor area showing the mountain structure and the car tyres). Kate also installed another resource for bigger climbing challenges. This included a ladder that was placed between two trees (see Figure 17 Ladder located between two trees) and a climbing wall (see Figure 18 Climbing wall located between two trees and a path for tricycles and scooters). This offered children the opportunity to practise climbing up and down on the same side, or to transition to the other side by climbing over the wall. Kate explained that, as the climbing frame had been located between the trees, it gave children a feeling of being at the same height as the trees.

While the lack of available elements, such as trees and natural climbing frames, may have presented a significant obstacle to other educators and, by association, may have limited these gross motor climbing experiences, the micro level factor of Kate's strong belief in the importance of children climbing and children engaging in outdoors gross motor opportunities motivated her planning, her creation of environments and her development of resources for children's active outdoor play (see Figure 15 The EMC model of Mountain Early Years).

Interestingly, Kate's proactive concerns for children's safety led to a number of other ways in which the outdoor environment was manipulated. For example, Kate added

safety mats around climbing equipment in efforts to overcome potential safety hazards. In viewing Kate's decision-making through the lens of the EMC model, one can appreciate Kate's background, as well as her lived experiences as an active person and her valuing of children's safety, as evidence of educator micro-level factors impacting on decision-making and on the active play environments that Kate created at Mountain Early Years so that. While at times these factors whilst at times they afforded opportunities for children's active play, they could also potentially inhibit children's active play at other times.

5.5.1.2. The physical space available in the indoor environment. Moving from the outdoor area to the inside environment, Kate identified "that the inside is not set up for a lot of large motor active play". This was seen as impacting "on opportunities for physical activity in the indoor environment". Within the EMC model (see Figure 15 EMC model of Mountain Early Years), this type of influence has been captured at the micro-level and referred to as a "physical environmental condition" that impacted on children's active play. The lack of physical spaces inside was a significant barrier to active play within the indoor environment. To compensate for the limited opportunities for active play indoors, the children were encouraged to use the padded room downstairs (see Figure 14 Padded classroom on the lower floor). While not ideal for a large number of children, this space gave a limited number of "children the opportunity to be active on their own terms".

Another area in the indoor environment that did offer a large space for children to move around was the main room on the ground floor (see Figure 13 The indoor area showing the available learning spaces). Considering that the floor was covered in floor tiles, movement was not understood in the sense of active play, as determined by this study, owing to Kate's heightened concern about children becoming hurt (see Figure 15 The EMC model of Mountain Early Years setting). Interestingly, while movement-based learning was considered, this space was purposefully set up with tables and chairs so that the children could engage in a range of table activities (fine motor experiences). A potential solution suggested was to ask the children to use spaces around the tables and chairs to move around. Otherwise, chairs and tables had to be moved to create a more

open space.

Concerns about children's safety and the lack of soft flooring in the indoor environment led to the idea of having children engage in active play inside being dismissed. In line with Kate's belief in ensuring children's safety, health and wellbeing, the concern over children getting injured outweighed the importance placed on children being engaged in active play inside. With only the movement room equipped with soft mats (see Figure 14 Padded classroom on the lower floor), the lack of available spaces conducive to active play in the indoors was identified as impacting on children's opportunities to engage in active play.

5.5.1.3. The element of risk and supervision. Kate identified herself as a worrier, elaborating that she was constantly concerned about the children's safety. "I think the older I get, the longer I have been with kids, the more I see more potential for harm. I think, when I was young, I did not see that much. I would not be able to live with myself and run the Mountain Early Years setting effectively if I did not consider all aspects of the environment for safety." Yet, at the same time, she realised that working with children under six years of age meant that the risk of their becoming hurt was constant. Kate explained that, over the years, with increasing teaching experience, her worry about children becoming injured had grown significantly. Kate identified this as being a factor impacting on her active play practices, as she became more aware of children getting hurt and therefore became more cautious and pre-emptive when offering or limiting opportunities for active play (Gyllencreutz et al., 2020).

This was observable within both the indoor and the outdoor environments, and was voiced by Kate, who worried about children falling down and having head injuries. This was especially evident inside, where children were not allowed to engage in any form of active play, as cement and tiles covered the floor. Yet Kate expressed that she was aware that being overly cautious was not favourable to the development of children's sense of responsibility for and awareness of the avoidance of dangers, nor was it understood to be beneficial to fostering children's agency and independence in evaluating potentially dangerous situations and in making appropriate decisions independently. Interestingly, from talking to Kate, it became clear that children's safety

was so strongly ingrained in her beliefs that the only spaces understood to be acceptable to promote active play were those found outdoors. This factor was evidenced within Kate's values at the micro level within the EMC model (see Figure 15 The EMC model of Mountain Early Years setting).

In the outdoor environment, active play was supported under the condition that the supervision provided was appropriate to ensure children's health and safety. Yet Kate expressed that it was also important that "There is always one adult in a potentially harmful area". For example, this was evidenced during the site visit, when children were moving from the grassed area to the climbing wall, and they were followed by the educator, who would be present to intervene in the case of unforeseen issues or safety hazards.

Within the EMC model (see Figure 15 EMC model of the Mountain Early Years setting), these types of influences were located within the immediate (micro) environment of Kate's early years setting (see Figure 15 EMC model of Mountain Early Years). It was crucial to Kate, who shared that "Supervision is definitely first off. I think teachers should be there always." This was consistent with my observations made during the on-site visit. For example, children were observed running from the garden area back inside the building. Out of concern for children getting hurt, they were asked to walk.

This behaviour was evidenced during the site visit to the service, when educators were closely monitoring children's actions, and were responsive in scaffolding and offering direct guidance to children or redirecting them to sedentary and fine motor activities outdoors and/or inside. Inviting children to 'safer' activities, such as playing in the playhouses or in the sand box, was a reflection of the educators' constant anxiety about children becoming hurt. With a mounting preoccupation over children's safety and the significant increase in educators working at the setting, the educator/student ratio was perceived by the researcher as impacting on two elements at Mountain Early Years: the physical space available on site; and children's opportunities to move around freely and to be agents of their self-initiated active play behaviours/experiences.

Kate pointed out that she did not perceive educators' supervision as a behaviour that impacted on children's independence in their free exploration of active play outdoors. Instead, it was understood to be a proactive strategy to offer further opportunities for children to be physically active in a safe environment, as teachers were always vigilant and in reach of the child, but at the same time they tried to be as discreet as possible, and to intervene only to encourage children to climb or to do an activity in a safe way, rather than structuring the activity.

5.5.1.4. Teaching to the syllabus. Within Kate's early years setting, an internal, play-oriented, play-based curriculum was implemented. The syllabus was created by Kate, and it contained a set of guidelines and recommendations about what to teach. This was to be followed and employed by all early childhood educators within the service. The way that the content was presented in class was left to the teachers. The educators at Mountain Early Years were then allowed to make use of their unique expertise in the field of teaching to decide which approaches would best transmit the teaching content to the students in their classrooms.

The purpose of using the syllabus as a teaching program was two-fold. It was intended to offer a play-based learning approach to children at Mountain Early Years. At the same time, the intention was to prepare children for PreK and Kindergarten, and eventually to help children to make the transition to Sri Lankan Government Schools and to Non-Government Schools. When referring to Sri Lankan Government schools, reference was made to those schools that were under the direct control of the Ministry of Education, and that followed the national teaching and learning curriculum, such as National Schools, Provincial Schools and Piriven (a monastic college for the education of monks in Sri Lanka). These schools were subject to directions by the Ministry of Education, and they commonly followed a curricular programme of study designed to ensure nationwide uniformity of content and standards in education across Sri Lanka - General Certificate of Education Ordinary Level (O Levels) and Advanced Level (A Levels). Non-Government Schools – for example, International Schools that did not directly fall under the control of the Ministry of Education – could follow a curriculum more suitable to their learning environments, such as the International Baccalaureate or the British

National Curriculum.

This meant that learning outcomes at Mountain Early Years were targeted towards the requirements set forth by more formal educational institutions, such as international and local school settings in Colombo, Sri Lanka. Such learning expectations impacted on the internal syllabus created by Kate, who, despite valuing children learning through play and being physically active, had to take into consideration and plan for a curriculum that targeted more formal teaching content, such as Mathematics, English and Sri Lankan Literacy.

Kate perceived the factor of curricular requirements set forth by the Ministry of Education as impacting on the affordances of active play practices at her setting. She explained that the requirement for a more rigorous approach to academic learning impacted on teaching and learning practices offered at her setting, in particular on the amount of time and the number of opportunities for children to be physically active at Mountain Early Years. These factors were captured at the macro-level of the EMC model as part of the component of social ecological factors impacting on the immediate environment of Mountain Early Years (see Figure 15 EMC model of Mountain Early Years setting).

5.6. Temporal factors

As was discussed in Chapter 3, the EMC model for this study was employed to in-quire into the temporal factors (see Figure 15 EMC model of Mountain Early Years) impacting on the affordances of active play practices offered at Kate's early years setting. Within the EMC model, the temporal elements of the environment were defined as those factors linked with timing, sequence and the length of routines and activities offered and planned for throughout the regular early years day. For example, at Mountain Early Years, routines throughout the day were structured in such a way that there was a continual exchange between "lulls and active time" (see Figure 26 Structured timetable impacting Timetable at Mountain Early Years). This could be traced back to Kate valuing a balanced teaching approach, where children were offered a range of opportunities to engage in

both sedentary activities and movement-based learning. The intention of this approach was to support children in developing self-regulation skills around their learning and activities.

For example, children's arrival time at the service was an active period, where children spent their time engaging in outdoor play. This included children putting their schoolbags away, greeting the teachers and then excitedly moving with their friends outside to engage in unstructured forms of active play, such as running around and catching one another, running up the mountain formation and sliding down, using active play resources like trucks and push-cars or playing in the sand box. Following a staggered entrance approach allowed children to arrive between 8:00 am and 9:00 am, with those children arriving early being exposed to the opportunity for engaging in active play for a total of one hour. For those children arriving later, though, this part of the day was understood to influence significantly the time that they had to engage in active play. In an attempt to ensure that children benefitted most from the time allocated to outdoor active play at the setting, Kate approached the parents and encouraged them to bring their children to the setting as early as 8:00 am.

Another example of a temporal element valued by Kate to support a balanced teaching approach was transition periods. For the purpose of this study, a transition was defined as those timeframes throughout the day when a child moved from one environment (outside and indoor) or activity (learning engagement) to another. These transition periods were planned to last from five to 15 minutes, and they were valued by Kate and other teachers as a way to help children to self-regulate their learning and to become balanced learners. During these transitions children were encouraged to engage in a mixture of sedentary and movement-based learning activities. Common transition activities with the younger children were singing and engaging in story time. For the older children at the setting (4-6 years of age), expectations were set slightly higher. With an increased demand for academic learning, the time spent in transition periods gradually increased. The reason was that more time was needed to introduce older children (4-6-year-olds) to more formal learning. Kate explained that sometimes those transition periods had to be extended beyond the planned 15 minutes to acknowledge children

needing more time to practise – for example, their letter formation, their reading strategies, or their understanding of mathematical concepts.

Interestingly, transition periods were valued by Kate for various purposes. It was understood that those timeframes could also be used as a means of supporting children's self-direction and engagement in self-initiated forms of active play. At the same time, Kate valued these moments throughout the day to support the promotion of a balanced teaching and learning approach to sedentary and active experiences. In this context, it was important to consider that the time, and how time was spent in transition, were influenced by Kate's positionality in terms of the types of experiences that either afforded active play or facilitated more formal and sedentary learning engagements.

Adopting a social ecological approach then helped to capture Kate's decision-making through the lens of the EMC model. This helped to highlight that a range of factors impacted on the support of active play provided during transition periods. Kate's background, which included her lived experiences as an active person, as well as her valuing of children being prepared for more formal schooling in Grade 1, but also expectations by parents of their children's academic success, were all factors that were stated to impact on the time dedicated to a range of goal-oriented learning experiences during transition periods. Kate took proactive measures to overcome the multiple variables limiting children's opportunities for active play, such as arrival time, limited time spent at the setting and the need for planning a range of sedentary learning engagements.

Interestingly, Kate's valuing of the importance of children's active play was a key motivator for some of the decisions that she made, and included, for example, implementing a daily schedule with a balanced approach of active and quiet routines, and encouraging parents to bring their children to school earlier. Other forms of learning were a reflection of Kate's valuing of children being able to self-regulate throughout more sedentary experiences. This complex structure of interwoven elements impacting on the temporal environment at Mountain Early Years was evidenced as having an impact on children's time spent in active play outdoors.

5.6.1. Factors impacting on the affordances of active play practices at the meso-level

As was explained in Chapter 3, the next layer closest to the immediate micro-environment of the early years setting is the meso-system. This system refers to the interrelationship between or among two or more settings/contexts/environments in which the educator, the child and the parents are actively involved (such as, for a child, the relations among home, school, and neighbourhood; for an adult, among family, work and social life) (Bronfenbrenner, 1979; Brown, 2012). For the purpose of this study, the meso environment included such factors as the immediate neighbourhood surrounding the education setting, and the parent/educator/service relationship. A range of contextual factors impacting at the meso-level of the Mountain Early Years setting are now addressed.

5.6.1.1. Cultural and parental belief factors. Throughout discussions with Kate, it became apparent that the Sri Lankan culture played a key role in the way that active play was facilitated within Kate's early years setting. While the element of the Sri Lankan culture was initially understood to be a factor located at the macro-level of the EMC model, in the case of Kate, the impact that culture had on the school parents, and on their perceptions and valuing of the importance of active play, was identified as impacting on Kate's practices at a meso-level (see Figure 15 EMC model of Mountain Early Years).

From talking to Kate, it became evident that, over the years, a Sri Lankan educational belief had developed that children needed to be exposed to a certain degree of academics early in their life. It became ingrained in the educational culture that practices in early years settings prepared children for more formal schooling. This required introducing children to basic forms of mathematics, including counting up to 20, writing numbers up to 20, asking children to practise writing their names and introducing them to the Singhala and Tamil alphabets in spoken and written forms. Kate identified the educational expectation of preparing children for Grade 1 as the

most limiting factor that she faced at Mountain Early Years, as it impacted significantly on the time available to children to be physically active. However, Kate's valuing of forming a strong educator/parent relationship helped to contain the impact of academisation at Mountain Early Years to some extent.

Kate approached parents and invited them into her office to discuss their questions, values and potential concerns about their children engaging in play. She explained to them the importance of children engaging in play-based learning and of being physically active, and she presented examples of how children learned – for example, about social skills when engaging with classmates during outside play time. Educating parents was understood to be an important strategy in overcoming the challenge of different educational beliefs, values and understandings. Kate explained to parents that their children needed to be allowed to engage in free play, especially outdoor play, in order to benefit from becoming physically and mentally healthy and balanced learners. At the same time, Kate reassured parents that she would do her best to prepare their children in their first steps in school.

These types of efforts were perceived by Kate as being quite successful within the immediate micro-environment of the early years setting, but also required her to adapt to an increasing demand by parents for more academic learning. Educating parents about the ways that movement can be used to help students to learn – for example, about numbers and letters – was perceived as having a positive effect on parents' understanding of play-based learning. Kate commented that "I have to say that I have changed a lot of people's minds and shown that children can do really well when they have their free play. So even our open, PreK-Kindergarten blend find that their children know all the information when they go on to pre-structured environments, and that children have no idea that they have been learning because they are able to interact with the environment, and able to interact with their friends."

Nevertheless, Kate pointed out that, over the years teaching in the early years, she had come to the conclusion that parents' expectations had had an impact on her practices. For example, the amount of time that children spent in active play and the opportunities for active play practices that she offered at her setting had to be adjusted

to meet the needs of a more formal teaching approach. Increasing concerns by parents over the importance of academic achievement had led to enhanced opportunities for academic learning at Mountain Early Years and had required Kate to introduce activities in the form of explicit teaching, such as forming numbers and writing letters in English and Singhala.

5.6.2. Factors impacting on the affordances of active play practices at the macro-level

As was discussed in Chapter 3, it is important for the study and goals of this research that factors located more distally to the phenomenon are fully explored. The macro-environment is the layer most distant from the educator's immediate environment, and was described by Brown (2012) as "those larger or external systems (subcultures and cultures) that exist as part of a whole, each being impacted on and in turn cascading upon other systems" (p. 317) Factors located within the macrosystem include cultural values, socio-economic issues, customs and cultures, and cultural events, such as the celebration of the Sinhala and Tamil New Year. Other factors include political issues, physical environments, socio-cultural status, and access to resources (Brown). Factors located within the macro-system of the EMC model include educator's belief system and ideologies, and factors further distant from the micro-environment that impact on the facilitation of active play practices. Further, relevant elements located at the macro-system include factors such as the cultural context in which the setting was embedded (such as cultural events celebrating Sinhala and Tamil New Year), the history of Sri Lanka and the educational system and the social conditions of the early childhood setting, as well as the economic systems of Sri Lanka, ethics and laws that guided the educational curriculum, cultural beliefs and values - for example, cultural events, such as the celebration of the Sinhala and Tamil New Year.

5.6.2.1. Drawing on sources of information from the media and professionals. Drawing on sources of information from the professional/educational literature that sits at the broader macro system was considered as shaping Kate's understanding of developmentally appropriate teaching practices and the holistic development of the child

(physical and emotional), and as helping to ensure that the practices offered at Mountain Early Years conformed to early childhood research. For example, Kate shared that her passion for teaching children in the early years started when she went to Berkeley and attended a seminar program for undergraduates about child behaviour. She was fascinated to learn about early childhood and the ways to support children in their learning. She decided to attend a range of workshops at graduate school and followed her lecturer's work very carefully, and found interest in learning about Scandinavian education, particularly early childhood and the approach of allowing extensive time for exploration during free play. Influenced by the play-based approaches employed in Scandinavian early years setting, Kate imparted a similar approach at Mountain Early Years. Over the years, Kate continued to keep up to date with research to make sure that the teaching and learning practices used at her setting were reflective of current research in early childhood education. Information from research-based articles and early years literature was understood to be a source of inspiration that impacted on the development of the play-based curriculum used at Mountain Early Years and was acknowledged as foundational to informing the movement-based practices at the setting.

During the semi-structured interview, Kate explained that staying informed about current practices and early years research supported her understandings, values and beliefs regarding the importance of active play. A better understanding of active play was then perceived by Kate as providing her with an increased confidence in facilitating active play practices at her setting, and as providing environments that were safe for and conducive to active play.

5.7. Summary of the Chapter

This chapter has presented a detailed contextualised overview of Kate and of her understandings, beliefs and practices related to active play, as well as providing an environmental scan of the setting, identifying active play spaces and the factors perceived as impacting on children's opportunities to engage in active play. Presenting contextualised details of the setting was intended to offer the reader a clear picture of

the unique case and idiosyncratic characteristics and features of Kate and Mountain Early Years. The information presented was captured in the EMC model (see Figure 15 EMC model of the Mountain Early Years setting) to help to understand more fully the range of factors impacting on Kate's understandings, beliefs and practices related to active play, and to show the potential interconnectedness and interrelations between those unique factors impacting on active play practices at Kate's early years setting.

As was evidenced through the EMC model, insights from the analysis of the data have highlighted the pervasiveness of the range of individual and contextualised factors impacting on Kate's decision-making in terms of planning for active play practices at Mountain Early Years, and on the environments created to facilitate active play indoors and outdoors. To this point, what has emerged from a detailed contextualised analysis of Kate's understandings and practices, and of the idiosyncratic nature of Mountain Early Years, is that a range of factors across levels of influences, such as Kate's lived active play experiences, and the educator/parent interactions and educational belief systems, was identified as impacting on active play at Kate's setting.

Chapter 6, the second data analysis chapter, will now introduces Sandra and the Ceylon Early Years setting. Close attention is given to Sandra's contextualised understanding and interpretation of active play and to the opportunities created for children to be physically active. Nuances of the Ceylon Early Years setting are then explored to better understand those factors that impact on the Sandra's support for active play at Ceylon Early Years.

Figure 15

The Microsystem of the EMC model of Mountain Early Years

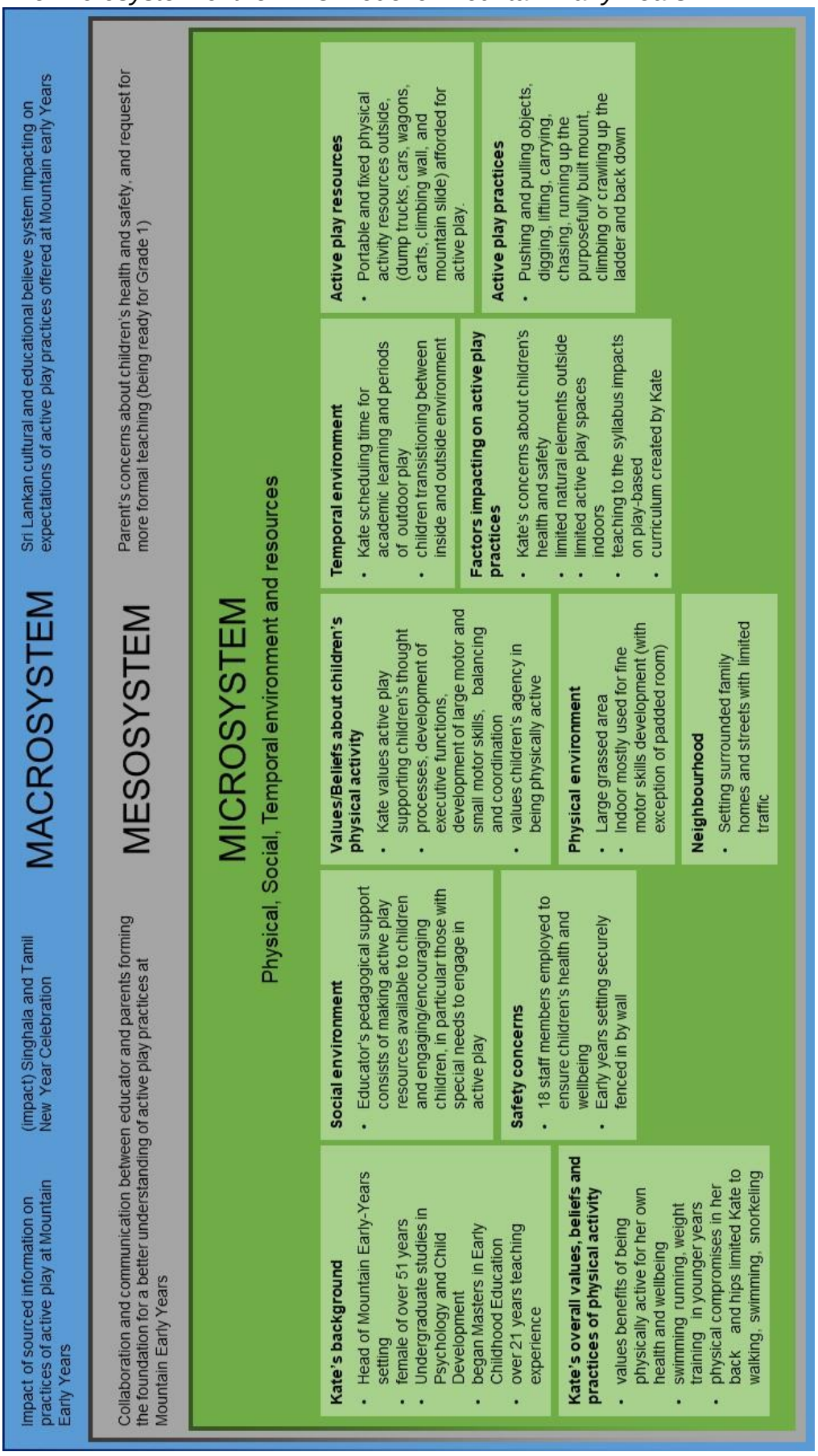


Figure 16

Outdoor area showing the mountain structure and the car tyres

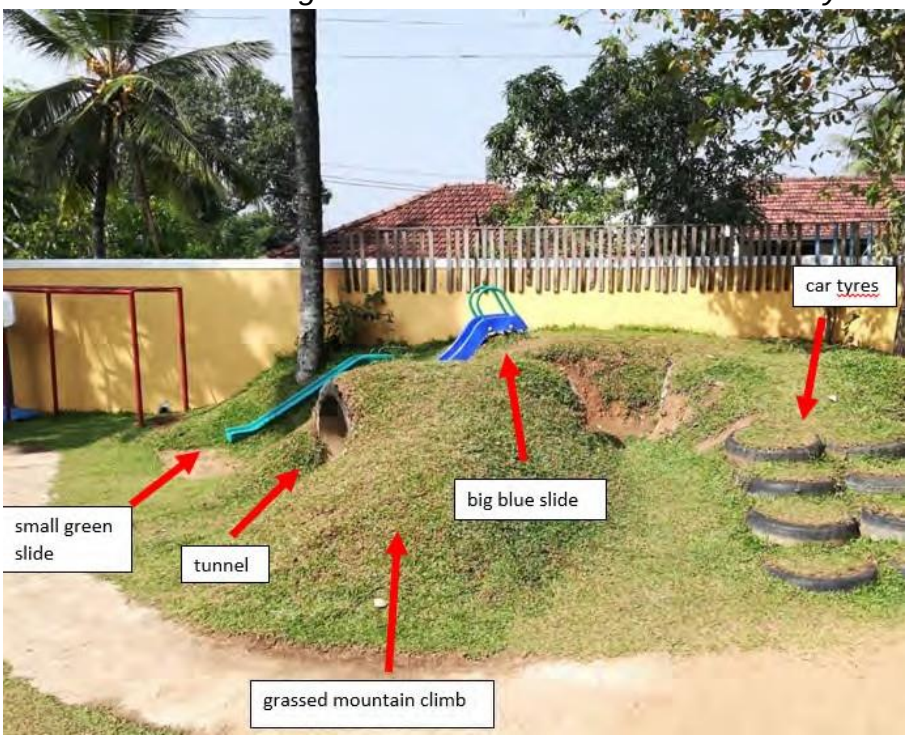


Figure 17

Ladder located between two trees

Figure 18

Climbing wall located between two trees and a path for tricycles and scooters

Figure 19

Sand box and fenced in swings

CHAPTER 6: SANDRA AND THE CEYLON EARLY YEARS SETTING

6.1. Overview of the chapter

This chapter adopts a similar approach to Chapter 5 by providing a contextual picture and detailed exploration of Ceylon Early Years setting. The intention is not to revisit theory discussed previously, but rather to explore, make sense of and address explicitly the unique characteristics and factors evidenced with regard to Sandra's understandings, values and beliefs relating to active play, as well as the factors impacting on the active play practices and environments that were offered and planned for at Ceylon Early Years setting. Consistent with the first data chapter (Chapter 5), the EMC Model of Ceylon Early Years setting will be regularly referred to in order to highlight the unique contextualised details of the setting.

Again, similarly to Chapter 5, Chapter 6 is divided into different sections. The first section captures Sandra's background and a presentation of the physical environment of Ceylon Early Years. The second part of this chapter focuses on insights into Sandra's perceptions and beliefs about active play. This is followed by a discussion of active play environments and practices at the setting. The chapter concludes with an analysis of the types of factors impacting on Sandra's decision-making about provision of active play practices in the early years setting.

6.2. Introducing Sandra and the Ceylon Early Years setting

This section of Chapter 6 offers an in-depth profile of the micro-environment that helps to create a contextualised representation of Sandra and Ceylon Early Years. Details to Sandra's background, educational profile, and educational philosophy, are captured in the micro-level of the EMC model (see Figure 10 The micro-environment of the EMC model). This is followed by an environmental scan of the physical setting of Ceylon Early Years and includes a closer look at the facilities and the surrounding community context.

6.2.1. Background of the educator

Sandra, aged 40, was born and grew up in Sri Lanka. She held a Diploma in Pre-school and Sub-Primary Education, and a Teaching Diploma from Ladies' College Institute of Professional Studies, which Sandra completed as part of a nationally recognised vocational education program and teaching training course. Sandra learned about early childhood education (3-5 years) and education for the primary years (5-8 years). Areas explored included an investigation into the development of children, including the physical abilities of the child, child psychology, language development, and teaching practices in the field of mathematics, literacy, and the arts.

After completing her degree in education, Sandra began to work in early years education across Colombo, Sri Lanka. Throughout her 14 years of teaching experience, she specialised in the field of early childhood education, with a focus on 3-6-year-old children. At the time of the on-site visit to Sandra's service she was in her final year of teaching 3-5-year old children at Ceylon Early Years in Colombo, Sri Lanka, before deciding to retire and look after her family.

Throughout her career as an early years educator Sandra developed a deep understanding of the importance of early childhood education and developmentally-appropriate teaching and learning experiences. Sandra valued children's health and well-being and physical activity as a driving force informing her decision-making. In this process, Sandra perceived educators as being role models and as active participants in children's learning, with the objective being to shape children's active play behaviours. Active engagement and being involved in children's play were highly valued by Sandra, as she believed that these types of practices encouraged and supported children's engagement in active play and helped to shape their active play behaviours and participation.

Over time, Sandra's understandings, beliefs, and values helped to solidify into an educational philosophy that included: offering a play-based approach to children, with Sandra as the significant adult, and actively co-constructing and participating in children's learning and active play experiences. Sandra valued offering children a balanced school

routine that included a combination of formal learning and outdoor active play. These contextualised nuances were reflective of the idiosyncratic nature of Ceylon Early Years, and were located at the micro-environment of the EMC model of the setting.

6.2.2. The Ceylon Early Years setting

The Ceylon Early Years setting was part of an international school, centrally located in a suburb of Colombo, Sri Lanka. The international school was founded in 1994 as an independent, co-educational school for children from 2 to 18 years of age. The school had grown significantly over the years, and now served a learning community of more than 1400 students and families made up of local Sri Lankan's as well as international families from all around the world. As one of the leading international schools in Sri Lanka, it offered an education based on the English National Curriculum, from junior school up to senior school and sixth form. The international school environment was targeted at wealthy Sri Lankan families, including those of renowned cricket players, politicians, businessmen, and expatriate families working in leading positions in businesses and Non-Governmental Organisations throughout Colombo and Sri Lanka.

The school was located on a main road that connected nearby suburbs with the Colombo city centre. In close proximity were a cemetery, a funeral home, car dealerships, supermarkets, restaurants and shopping malls that significantly contributed to the school being situated in a busy neighbourhood. The school building could be accessed via the main entrance connected to the main road. For purposes of safety during drop-off and pick-up, one lane was partially shut off with traffic cones to ensure a smooth and quick transition from entering the driveway to the school, for easy drop off and pick up of children.

6.2.2.1. The indoor environment. There was an added layer of complexity to understanding the indoor and outdoor environment at Ceylon Early Years, as the early year setting was part of an international school and a larger school campus, rather than a separate and independent education environment. Understanding these features of the school campus as a whole was useful in appreciating the contextual uniqueness

of this setting. Features unique to the indoor environment of the international school are now discussed starting with the junior school environment, followed by an overview of the features unique to the senior school and concluding with an investigation into the idiosyncratic elements of Sandra's early years setting.

The junior school setting is divided into a range of classrooms catering to children from 2 to 11 years of age. While all junior classrooms were located on the first floor of the same building, they were spread out across two sections, either catering to children in the early years (children 2-5/5.5 years of age) or to the primary years (children 6-11 years of age). Dependent on their age, the children attended either Playgroup A&B (2-3 years old), Nursery A, B&C (3-4 years old), Reception (4-5 years old), Years 1&2 classrooms (6-7 years and 7-8 years old), Years 3&4 classrooms (8-9 years old) or Years 5&6 classrooms (9-10 years and 10-11 years old).

In addition to the traditional subjects that were taught, a range of specialist subjects, for example music, drama, arts, and Information Communication Technology (ICT) was offered to children. While each junior classroom had Information Communication Technology (ICT) facilities, including computers to aid learning and teaching, other specialist classes were located within other areas of the indoor environment. Spread across the first (ground) and second floors were the art studio, equipped with a range of resources needed to conduct painting classes, a shared library, including a main room with a range of bookshelves, chairs and tables and a smaller section for kindergarten classes to hold lessons. These were captured within the EMC model of Ceylon Early Years and located within the microsystem (see Figure 21 The microsystem of EMC model of Celyon Early Years setting).

Indoor facilities promoting structured forms of physical activity were shared be- tween the junior and senior schools. Students benefit from an indoor basketball court, a squash court, cricket nets, and tennis, badminton, and netball courts. Fully sprung parquet flooring and an expansive Sports Terrace complete the unique features of the fully equipped indoor gymnasium (see Figure 23 Multi-purpose indoor gym). A covered indoor swimming pool concluded the indoor sporting facilities offered at the

international school setting. With most facilities being available to children from Grade 1 onwards, the only space accessible to Sandra's class was the multi-purpose gym used during structured Physical Education classes once a week for a set time frame of 60 minutes.

As mentioned, Sandra's Early Years setting made up only one section of the school's campus. Like the other early years classrooms, Sandra's homeroom class was on the first floor of the two-storey building, with a hallway connecting it to the kindergarten playground. Being the main learning space for Sandra and her students within the indoor environment, the homeroom classroom served as a meeting point at arrival time, a space to greet classmates and teachers, and a space for children to engage in formal and informal learning experiences.

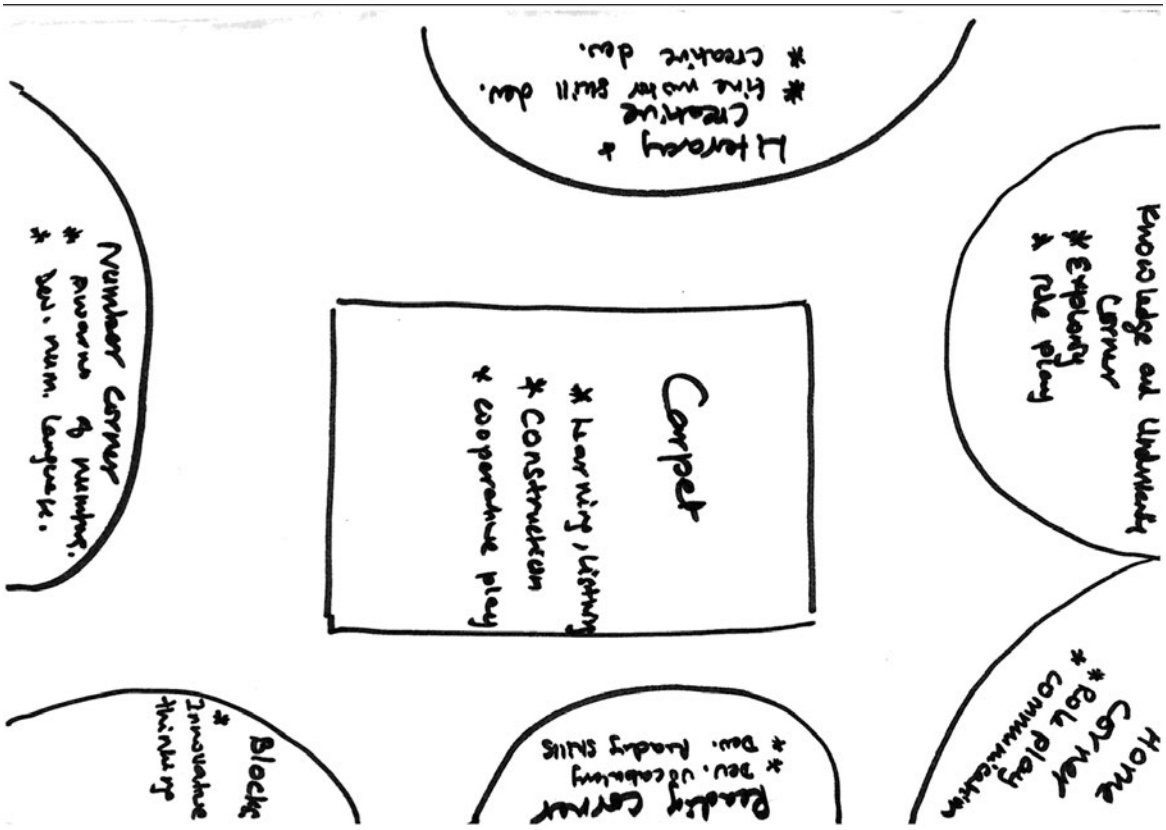
Sandra's classroom consisted of an area dedicated to morning routines, with a carpet functioning as a comfortable place for children to sit. In the back of the classroom a range of diverse play spaces was supported (see Figure 20 Showing the classroom outlined by Sandra). These areas included a dramatic play area that was set up for children to engage in imaginative play, dolls for role play and clothes for dramatic play and dress-ups, and a knowledge and understanding corner, set up for children to engage in exploratory and sensory play. There was also a dedicated area to support literacy and creativity, arranged to the front left of the classroom. On the opposite side of the classroom was a reading corner to develop vocabulary and reading skills, while blocks were stored on a shelf in a corner of the classroom for children to develop innovative thinking and manipulative skills. Finally, a maths corner presents learning engagements that focused on numeracy and developing mathematical language, while other learning spaces in the classroom provide tables and chairs for tabletop activities. In the back of the room was the classroom ensuite bathroom, which was used only by children in Sandra's class.

6.2.2.2. The outdoor environment. A range of outdoor environments had been created at the international school to target specifically the needs of students at different grade levels. Spaces dedicated to senior students within the campus served

a range of purposes. A rooftop café and a small garden area served as an area for leisure time, while the outdoor play space with a basketball court and an attached covered swimming pool were used to exercise during break time or to engage in structured physical education classes.

Figure 20

Showing the classroom outline by Sandra



A unique environment accessible only to senior students and located outside the school campus, was a major sporting complex. This served as a national sports facility regularly used by the national swim team and athletes representing Sri Lanka. Senior students at the international school had the opportunity to access the national swimming pool facilities and the athletics stadium on a regular basis during and after school hours.

While a range of indoor environments was shared across grade levels, the outdoor spaces were specific to departments. For example, the outdoor environment dedicated to children in the early years was a shared space between the Playgroup, Pre-

Reception and Reception classrooms. This consisted of two main outdoor areas, one being only partially covered. The other space was fully covered and equipped with a range of active play resources. These spaces were captured as part of the physical environment within the EMC Model of Ceylon Early Years and will now be described in more detail.

The partially covered, padded outdoor play area, captures the section of the outdoor play area that directly connected to the early years corridor, which connects the indoor and outdoor environment. This open play space offered children the opportunity to benefit from direct sunlight as well as affording natural elements, such as trees as a source of shade to those children who preferred some protection from the direct sunlight. Another essential physical element in the outdoor environment, and one that provided s for children's safety, was the concrete wall and the metal fence facing to the main entrance of the school building. It prevented children from leaving the school campus and accessing the main road and potentially from being exposed to safety hazards found beyond the campus walls.

The outdoor play space further away from the early years corridor was located to the side of Sandra's Early Years classroom. The only way to reach the covered outdoor environment is through the corridor, as there was no pathway directly connecting the classroom and the outdoors. The outdoor space was a fully covered play area with corrugated metal panels to protect children from the direct impact of the sunlight. The use of light translucent panels ensured that some natural light was able to come through (see Figure 22 Padded and covered area showing fixed and loose equipment).

Fixed and portable active play resources were accessible to all children. Portable active play resources were located and stored in the fully covered area of the outside environment and included tricycles, hula hoops, wooden blocks, plastic slides, plastic and wooden building blocks, cones and a basketball hoop. A metal box that had been placed against the school building functioned as a storage room for the loose parts (see Figure 22 Padded and covered area showing fixed and loose equipment).

Throughout the outdoor play area preventive measures have been taken to

ensure children's safety. These measures included almost fully covering the purpose-built outdoor play area with rubber flooring mats to offer children protection when running around and potentially falling down. With these safety precautions in place, the active play spaces available were understood to offer children opportunities to be physically active and facilitate their physical development in the early years setting.

A contextualised appreciation of the Ceylon Early Years setting through the eyes of the EMC Model (see Figure 21 The microsystem of Ceylon Early Years setting), afforded insights into the unique and idiosyncratic nature of the setting. This helps in understanding Sandra's positionality as an early years teacher, while appreciating the impact the international school environment might have had on influencing Sandra's practices in supporting active play. Providing opportunities for active play practices was dependent on a range of jigsaw pieces, such as the institutional structure of the international learning environment, the physical spaces available across grade levels, and more dis-tally (at the meso level of the system) the clientele attending the setting, as well as other key stakeholders. An appreciation of the contextualised features of a particular setting thus helped to understand better the potential challenges and barriers that Sandra might have faced throughout her regular teaching day and within her immediate homeroom classroom.

6.3. Sandra's understandings, values and beliefs related to active play

Given the existing research that reinforces the significant impact that educator's attitudes and beliefs have on their practices (Klehm, 203), it was important to explore Sandra's unique understandings of and values about active play, and to analyse how they shaped her practices. For the purposes of this study, this analysis aligns with Research Question 1, and is captured at the micro-level of the EMC Model of Ceylon Early Years setting (see Figure 21 The Microsystem of EMC Model of Ceylon's Early Years setting). It is necessary to provide a reminder that the EMC model offered a tool to help to make sense of Sandra's nuanced understanding of active play, while exploring interpersonal factors, such as her belief in, valuing of, and lived experiences related to

active play (Gehris et al., 2015).

Sandra explained that when she grew up in Sri Lanka, she was very free to explore her environment. She used to engage in role play and play outside and climb trees, but over time these types of experiences changed significantly, with children nowadays being equipped with a diverse range of resources to enhance their opportunities for physical activity. According to Sandra, children's active play behaviours shifted away from unstructured outdoor play towards structured forms of physical activity that are more suitable to be used inside. In In discussing her current involvement in physical activity Sandra mentioned that this was limited to structured forms of physical activity, such as dancing. However, she did perceive herself as "a very physically active person" as she was constantly on her feet in class and at home (incidental activity). Within the home environment, Sandra was interested in listening to music and dancing Zumba, a total body cardio and aerobic workout from time to time. Due to several commitments at home however, she mentioned that, because of limited available time, she was not able to participate in structured and scheduled Zumba or dance classes.

From talking to Sandra, it became clear that she understood the value of active play as being closely connected to supporting the development of fine and gross motor skills. She understood active play to be experiences that involved children being engaged in any form of learning and play, which required the use of different body parts and movement to perform a certain task. For instance, Sandra expressed the belief that forms of movement that included incidental active play, where children chose in which type of play they wanted to engage in, could be considered a form of active play. Interestingly, in discussion with Sandra and in reference to her understandings of active play, Sandra did point out, that she believed that the dramatic play corner was an opportunity where children engaged in active play, as children were using their bodies to engage in play. She commented, "In our indoor environment, the role play corner definitely initiates active play."

For this study, the interpretation of active play was understood to be those

planned or incidental, often intrinsically motivated, gross motor play-based learning experiences that usually include a cardiovascular, holistic health or broader developmental benefit. So, it was interesting that the interpretation of active play evidenced by Sandra encompassed types of play that were actually considered to be sedentary in nature, such as those created in the role play area. Such forms of play engaged children in low- intensity play, with a potential for low-moderate physical activity. To be considered as a form of active play, as defined for this study, a significant increase in the heart rate and energy expenditure was required. Based on the definition of active play used in this study, dressing up in the role play corner would not be considered as active play (Bjørgen, 2016; Lester & Russell, 2008).

6.4. Making sense of active play environments and practices at the Ceylon Early Years setting

Using the EMC model (see Figure 21 EMC Model of the Ceylon Early Years setting) was helpful in acknowledging and making sense of those active play environments present at Ceylon Early Years, as well as the ability to understand better the factors impacting on children's opportunities to engage in active play at the micro-level. To capture fully this element of the study, it was important to focus on the research participants and on their understanding related to what sorts of activities fell under active play, and their ideas about which parts of the physical environment were conducive to active play. Information gained from the research participants thus helped to inform Research Questions 2: Which active play practices and environments were evidenced? The details about the Ceylon Early Year's setting are now discussed.

6.4.1. Active play environments

The use of the EMC model helped to present and make sense of the unique nature of Ceylon Early Years as a context affiliated to and located on the campus of a larger international school environment (see Figure 21 EMC Model of Ceylon Early Years setting). What emerges from this investigation was the complex nature of Sandra's early years setting and the broader overlapping systems and the interplay and the ways in

which these factors impacted on active play spaces on children's opportunities as they engaged in active play experiences with-in this setting. The following subsection explores those active place environments and resources evidenced at Ceylon Early Years.

6.4.1.1. The padded outside play area. One of the main outdoor active play spaces was the padded outdoor play area (see Figure 22 Partially covered, padded outdoor play area showing fixed and loose equipment). The outdoor area was mostly covered with rubber flooring mats, a feature that had been added to ensure that children could run around safely and fully engage in active play. Only a small area along the classroom walls was fitted with concrete cobblestones (see Figure 22 Padded and covered area showing fixed and loose equipment). Additionally, an array of active play resources was stored in the outdoor area and made available to children to engage in opportunities for active play. For example, active play resources identified in the fully covered outdoor play area included slides, cricket bats and balls.

Located by the entrance/exit to the early years corridor was one part of the padded outdoor play area where children engaged in opportunities for freely chosen and uninterrupted active play. This area of the outdoor environment was also used to transition fluently across both outdoor spaces during outside play time. This space was almost entirely covered in soft rubber floor tiles to prevent children from getting hurt. Having a wide and open area thus supported additional opportunities for children's active play, while also making it easy for the teachers to supervise children across both outdoor spaces. Children were observed to engage in races using scooters and tricycles, drive around in circles, and run around or chase one another. Other children engaged in forms of rough and tumble play, running around and catching one another. The open structure of the outdoor area provided children of all ages with the opportunity to make their own decisions, take risks and build their confidence, while making responsible choices and still being offered opportunities to challenge themselves.

In addition, the presence of some trees allowed for some shaded areas where children could engage in fun open-ended active play that provided for short bursts of energy in the outdoor environment. Interestingly Sandra referred to trees as being

natural features of the outdoor environment. Sandra explained that at Ceylon Early Years however only a small number of trees was available and that the trees were rather challenging for children to climb. Despite the limited availability of natural elements at the setting, these elements were believed by Sandra to facilitate children's opportunities to be physically active. Sandra therefore allowed children to climb the trees, with children being observed to try to climb up trees, and to catch leaves falling from the trees.

The presence of animals that visited the outdoor space, primarily birdlife, enhanced the aesthetics and enjoyment of children's active play experience outdoors. Crows flying around the trees animated children to jump, hop and race one another around the outdoor playground. The unique feature of the natural environment was captured at the micro-level of the EMC model and was an example of the idiosyncratic nature of Ceylon Early Years supporting children's engagement in active play (see Figure 21 The EMC model of Ceylon Early Years).

Active play resources in the outdoor space included portable and fixed equipment (see Figure 22 Padded and covered area showing fixed and loose equipment) and were intended to offer children opportunities to raise their heart rate (see Figure 21 The Microsystem of EMC model of Sandra's Early Years setting). For the purpose of this study portable active play resources (Ng et al., 2020) are those materials that could be moved and manipulated in various ways to encourage children's opportunities to explore their environment in creative ways as well as facilitate the raising of their heart rates (Houser et al., 2019). These types of portable active play resources, include natural materials found in the outdoors (Nicholson, 1971; Razak et al., 2018), such as branches, sticks and stones, as well as those constructed resources such as, cones, balls, bats, and other play equipment. Fixed, permanent equipment can be referred to as those play resources that are anchored within the environment, such as climbing structures, slides, and swings (Bower et al., 2008; Dowda et al., 2009; Sugiyama et al., 2012). Portable and fixed active play resources found in the outdoor environment were captured at the micro-level of the EMC model of Ceylon Early Years and are now be further explored.

One of the active play resources featured in Figure 22 (see Figure 22 Padded

and covered area showing fixed and loose equipment) and covered area showing fixed and loose equipment was a collection of commercial climbing constructions with incorporated plastic slides. From speaking to Sandra, these active play resources offered children the opportunity to climb up the frame on one side and to slide down again on the other side. However, the way that children chose to use the slides was left up to them. Given the open-ended nature of this piece of equipment, children could engage with it in a variety of ways, with most interpretations supporting active play and by association children engaging in experiences that would improve their coordination and motor skill development (Cox et al., 2018; Ng et al., 2020). Further, the varying heights of the slides offered children the opportunity to make their own choices based on their physical ability level, and to decide to what extent they wished to challenge themselves.

In addition, portable slides held the potential to encourage children to interact with the equipment more regularly, and as Sandra explained, this was particularly the case if the equipment were placed in new and interesting locations within the outdoor play area. Portable slides were often associated with being shorter than fixed slides, facilitating opportunities for children to run back up the stairs repetitively and to slide down again, encouraging increased exposure to active play. Interestingly, from a social ecological perspective the availability of active play resources or the presence of key physical environmental features alone did not facilitate children's active play. (Ng et al., 2020). Other factors, such as ecological factors, including educators' values and beliefs, significantly contributed to the potential of active play resources and active play environments have to afford active play practices.

Another outdoor area that was stated by Sandra to support active play was a space dedicated to children playing with bats, tennis rackets and soft balls, and engaging in pretend games similar to floor hockey, baseball and cricket. This area was located towards the end of the covered outside play area, close to the storage box, and was identified by Sandra as the field/pitch. From talking to Sandra, the children knew that this space was dedicated as the field for team sports during outside play time, and that

it involved rolling and hitting the ball, and chasing after it.

6.4.1.2. The indoor environment. Besides the outdoor environment, which has been identified as the main space for children to engage in active play, the indoor environment also offered several spaces that had the potential to provide opportunities for active play (Grunseit et al., 2020). One such space was Sandra's classroom. Interestingly, Sandra identified the role play and dress-up corner as being spaces that afforded for active play (see Figure 20 Showing the classroom outline by Sandra) because exploring play tools, such as constructions tools, was considered by Sandra to be a form of being physically active. However, with reference to the definition of active play adopted for this study, these types of spaces (such as the reading corner or dramatic play area), and experiences would be classified as spaces providing for sedentary activities.

As explained earlier in this chapter the indoor spaces in Sandra's context were located across two floors and served multiple purposes. For example, spaces created inside Sandra's classroom offered children opportunities to engage in a range of tabletop activities and teacher-structured movement-based learning activities. Other more subject-specific indoor spaces focused on the development of fine motor skills, such as arts and crafts, or skills with an academic focus, such as reading (in the library). With reference to the definition of active play used for this study, these indoor spaces were primarily sedentary and not considered as facilitating opportunities for active play.

A space within the indoor environment of the school setting that had been identified by Sandra as significantly impacting on children's opportunities for active play, was the gym (see Figure 23 Multi-purpose indoor gym). This was located on the first floor and was within walking distance of Sandra's classroom. The multi-purpose gym provided children with opportunities to raise their heart rates during structured forms of teacher-guided physical activity. As the gym was a space used by all classrooms at the international school, a dedicated time was allocated for each of the classes to access this facility, including Sandra's class (see Figure 27 Classroom specific timetable showing daily routines).

Sandra's class attended structured physical education lessons once a week, every Monday, for a total of one hour. These sessions were facilitated by a certified Physical Education teacher, who planned the children's opportunities to develop fundamental movement skills such as catching and throwing, jumping, balancing, and engaging in team sports. Sandra's perception that physical education classes were considered as a form of active play, was based on her understanding that structured forms of movement-based learning would also fall under active play. Given that the focus of this study was on active play, most of the indoor environments, including the multi-purpose gym, were understood as spaces where children were offered opportunities to be physically active, develop and refine a range of fundamental movement skills and raise their heart rate. The gym was however not considered as a space that provided children with opportunities to engage in self-directed and intrinsically motivated active play (Dinkel et al., 2019; Houser et al., 2019).

Exploring active play spaces in the outdoor and indoor environment at Ceylon Early Years was important to understand better the physical features and spaces available at this setting, and which of these afforded opportunities for active play. However, as this study was located within the social ecological literature, it was important that an awareness of the physical environment that was evidenced at Ceylon early learning was not viewed in isolation, but rather from a systems or contextualised perspective. Viewing the physical features and resources within Sandra's Early Years setting from this perspective, as well as other features unique to the context, provided a greater understanding of potential factors that facilitated or inhibited opportunities for active play to be revealed (Ng et al., 2020). Further, utilising the EMC model for Ceylon Early Years helped to make sense of those nuanced and idiosyncratic features of early years active play environments. The following subsection explores in more detail the active play practices and environments offered to children and supported by Sandra at Ceylon Early Years.

6.4.2. Active play practices

It was of interest that Sandra's pedagogical support practices were in line with the early years Foundation Stage Curriculum (IPC) that the international school setting followed. Within the curriculum seven learning areas were identified, one of which recommended children being physically active. Sandra explained that while active play was not explicitly identified within the international curriculum, the importance of children engaging in physical activity was certainly an identified developmental goal of early childhood education linked to one of the seven learning areas, referred to as motor skills.

For the purpose of this study, Sandra's pedagogical approach used to facilitate children's learning was described as heavily focused on teacher involvement and teacher participation (including the use of scaffolding). Teacher involvement consisted of those experiences where Sandra directly participated in experiences of active play with the children. In doing so Sandra transmitted positive messages about active play, health, and wellbeing, and helped to offer explicit and frequent support, in particular with mastering fundamental movement skills. Such experiences were used to support the physical development of the child, but also to raise children's awareness that active play was fun and was a valuable tool to build friendships. A number of the examples that illustrate the diverse ways that Sandra offered active play practices to support children's opportunities of active play is now explored.

6.4.2.1. Pedagogical support and belief in agency. As identified within the micro-level of the EMC of Sandra's Early Years setting (see Figure 21 The Microsystem of Ceylon Early Years setting), Sandra highly valued children being physically active and believed in the importance of children engaging in both unstructured forms of active play and structured/guided forms of physical activity. During the semi-structured interview, Sandra explained that she shared her beliefs about the importance of children being physically active when holding professional planning sessions with other early years teachers. Sandra reinforced her belief that being physically active was understood as supporting the development of childrens' muscles, which in turn was

understood to be important when engaging in activities that required gross motor skills.

In addition, Sandra shared with the researcher that physical activity was understood to be a tool that supported the development of children's unique characteristics that formed children's distinctive character. Sandra's pedagogical support and belief in agency drove active play practices at her setting. For example, over the years Sandra had observed that engaging in physical activity or active play, particularly in child-initiated team sports, helped children to become more confident. Understanding the importance of children engaging in a range of forms of active play led to Sandra's planning dedicated sessions that afforded children the opportunities to engage in physical activity and active play. Both structured forms of physical activity andas child-initiated forms of active play were used and reflected in Sandra's planning.

Sandra understood unstructured forms of active play to consist of those opportunities that had been planned for during outside break time, where children were free to decide how to engage with active play resources and the outdoor environment. Children could thus con-struct their own rules, set their own objectives and add meaning to their active play experiences. Most of these opportunities were scheduled for during outside play time at morning recess. At these times children were given the freedom to engage in their own active play experiences in various play environments outdoors, such as running around and chasing one a n other.

Structured forms of physical activity were thus understood to come in the form of teacher-guided dance lessons or Physical Education (PE) sessions, that were commonly conducted by a certified Physical Education teacher in the indoor gym (see Figure 23 Multi-purpose indoor gym). Only sometimes were the PE sessions moved to the early years out-door environment. As the PE sessions were an essential element of the educational curriculum, (British Curriculum) followed at Sandra's early years setting, they were recorded as a fixed component of the timetable, with a set day and time. Placing these sessions on the timetable was in line with Sandra's belief that offering children physical activity served as a balance to more formal early childhood education and exposed children to the explicit teaching of fundamental movement skills. During PE lessons support was offered by the PE teacher and his/her assistant teacher.

Within the indoor environment Sandra's pedagogical support practices commonly occurred in the homeroom classroom. Pedagogical support came in the form of modelling expectations and modelling the correct execution of movements. Under certain circumstances this involved teachers actively engaging in the physical exercise explicitly taught to children. On the day of the on-site observation this was the case when the children were practising Flamenco dancing for the grand school performance in their homeroom class. While the children were able to add their personal touch to the movements, the dance practice was teacher-structured and guided, and consisted of several dance routines that required children to coordinate hand, leg, and hip movements. Sandra and the two teaching assistants were demonstrating the movements, while the children were copying the adults. While these dances sessions would be considered physical activity, rather than active play, it showed that the value that Sandra placed on children being physically active reflected her efforts to offer children opportunities to exercise.

Teacher-structured exercise sessions in the classroom, such as the Flamenco practice, thus required teachers to rearrange the classroom furniture. As the classroom had been set up for tabletop activities and sedentary learning, spaces needed to be created to afford for structured forms of physical activity indoors. In those unique situations, it was the educators who moved the furniture to create more free and open spaces for children to move around and to be physically active. From talking to Sandra, it became clear that with 24 children in her class such exceptions were rare opportunities for physical activity in the classroom and would happen rather towards "the end of the term, when we have more free time".

In addition to acknowledging the importance of structured physical education lessons, Sandra strongly believed in children being agents of their own learning and movement. As such, part of the classroom contact time was used to ensure that children had sufficient time to come up with ideas and opportunities for active play and were free to decide to what extent they wanted to be physically active. The time dedicated to such opportunities for child-initiated active play varied during these times. Sandra commented, "It depends on our weekly planning. If we have put in our

collaborative planning that we have a mixture of where we take them outdoors, we put it in. Or, we can say it is free play and we can decide what we do, but we keep an eye on them and play along." In Sandra's case, if she did find a way around the tight daily schedule, she allowed some flexibility in routines and timings to support children's active play experiences.

A more formal approach in offering support to children came in the form of purposeful planning and scheduling for active play. One hour of physical activity was planned for every day, consisting of structured and unstructured forms of movement (see Figure 27 Classroom specific timetable showing daily routines). This included Sandra's class attending PE classes (offered once a week for an hour), as well as participating during structured forms of physical activity indoors and actively engaging in outdoor play time.

Within the international school setting, planning in such highly scheduled and fixed timeslots for children to be physically active was very challenging, as well as highly dependent on and affected by the amount of formal teaching expected and the location of the gym used for Physical Health and Education (PHE) classes. Sandra pointed out that there were various spaces dedicated to supporting physical activity and active play. This included spaces located close to Sandra's classroom. Other spaces though were located further away, as these were displaced throughout the school campus. Distances to be covered by Sandra and her students depended on the location of the learning environment. The time required walking to and from the sport facilities had to be included when scheduling timeslots for active play.

Similarly, transitioning between locations/classrooms for other learning experiences, including visits to the library or the dining hall, held the potential of providing opportunities for incidental exercise. At Ceylon Early Years for instance, Sandra valued children expressing their agency when moving from the classroom to the library. Children were allowed to move freely while approaching the stairs. Some children decided to walk, while others moved like animals and ran until they reached the stairs. Similar opportunities were offered to children when moving to other locations within the international school setting, or when running through the corridor to move from the

indoor environment to the outdoor play area.

In the outdoor environment Sandra's pedagogical support practices came in the form of making active play resources accessible to children and encouraging them to choose independently choose from the activities and resources available. Sandra valued having the environment set up with some resources but believed that it was important to offer children agency in choosing with what to play with. Therefore, a range of resources used to support active play was stored in metal containers, that were easily accessible by the children (see Figure 22 The padded and covered area showing fixed and loose equipment). As captured in the micro-environment of the EMC model for Ceylon Early Years, these types of practices, and the ways in which the outdoor environment catered for children's freedom and choice of equipment, were influenced by Sandra's belief that children had a certain responsibility in facilitating their active play practices.

To promote further children's opportunities for active play in the outdoor area, educators supervised and sometimes engaged with children in playing games such as modified baseball. For Sandra, role modelling expectations of active play behaviours during team sports were among the many practices understood to support children's active play experiences. "We like to run around with them or play with the bats or the balls, get involved with their thing as is necessary." While Sandra believed in children becoming more independent and having the freedom to choose, she also balanced this belief with adult engagement, interaction with children and facilitated opportunities to be physically active. This included, Sandra encouraging children by modelling the correct ways of hitting a ball when using a bat. Most involvement and support by Sandra revolved around and was focused on task-oriented physical play experiences aimed at learning a fundamental movement skill (e.g., rolling a ball, and hitting the ball with a cricket bat).

Viewed from a social ecological perspective, on which the EMC model was based, Sandra's pedagogical support practices were understood as potentially benefitting children's opportunities for active play and as helping to shape children's active play behaviours. What emerged from viewing these practices through an ecological lens was that Sandra's understandings, values and beliefs had the potential of both facilitating,

and limiting active play practices at her setting What became evident was that Sandra's understanding of active play partially reflected the definition of active play used for this study. A thorough understanding of unstructured forms of child- initiated active play was seen as the foundation used to plan for and integrate practices of active play within the indoor and outdoor environment at Ceylon Early Years. The extent to which Sandra's beliefs impacted on the practices of active play at Ceylon Early Years is now discussed.

6.5. Factors impacting on active play practices at the Ceylon Early Years setting

Throughout the semi-structured interview conducted with Sandra, a number of factors across a range of levels of influence, such as the micro-, and macro-levels, and ranging from the immediate environment of the setting to more distal factors, were identified and understood either to support or to limit active play. These insights helped to inform the understandings particularly related to Research Question 3, focused on better understanding the factors impacting on early childhood educators' decision-making about active play practices and environments. A range of these factors is now addressed.

6.5.1. Factors impacting on the affordances of active play practices at the micro-level

6.5.1.1. Design of the indoor environment. Within the immediate environment of Ceylon's Early Years setting, the physical characteristics of the classroom impacted on children's opportunities for active play. Sandra explained how the set-up of the classroom was geared towards more sedentary learning engagements. According to Sandra, this included sedentary play, such as table-top learning experiences like manipulative play or formal learning experiences, which included completing worksheets.

Limited active play spaces inside meant that children's active play opportunities primarily occurred in the outdoor environment.

In an attempt to overcome the challenge of the limited indoor space, Sandra rearranged the classroom furniture to the back of the room to create an open space for children to engage in physical activity, such as dance practices. This was observed by the researcher on the day of the on-site visit. For example, chairs and tables were moved to practise the Flamenco dance in preparation for the grand school performance. Sandra reinforced that these types of teacher-structured and guided movement activities, were an attempt to provide for unique opportunities for physical activity inside. According to the definition of active play provided for this study, however, the practices observed inside the classroom, and the experiences shared by Sandra, would not be considered as a form of unstructured active play.

6.5.1.2. Children's safety. Over the years, Sandra carefully considered children's safety when planning for movement-based learning experiences (see Figure 21 The Microsystem of EMC Model of Ceylon Early Years setting). Sandra stated that she considered the safety of children to be her personal and professional duty. Particularly in her position as the educator, the significant adult at the setting, she saw herself being responsible for children's health and wellbeing. In relation to children's active play in the early years, she appreciated that children might fall down during the course of their games and activity, she was aware that this was part of children's active play and risk-taking, and she also understood that it was an experience from which children would learn.

Despite her concerns over children's safety in the indoor environment, Sandra made further attempts to overcome the limiting physical characteristics of the classroom. In order to encourage children to be physically active inside, Sandra brought the water table and the sand tray into the classroom (an activity considered by Sandra to enhance active play, but not understood to be active play according to definition of active play provided for this study). Sandra soon understood however, that her decision did not lead to the desired success of promoting active play indoors.

Instead, it led to safety issues in the classroom. According to Sandra, the sand and water regularly landed on the ground, and the children tended to slip on the water while playing inside the classroom. The only way to overcome the potential risk factor was to encourage children to play with the water and sand trays outside. Moving activities outside thus ensured that children still had the opportunity for being physically active.

In addition to moving the water and sand table outside and encouraging children's active play in the outdoor environment, Sandra tried to ensure children's safety by introducing and following up with children that a "structured set of rules" be followed in the indoor environment. This included children not being allowed to move around the furniture, to climb on the furniture or to run inside the classroom. While these rules were put in place to ensure children's safety, they did impact on children being agents of their learning and on the potential for any sort of incidental movement. As such, while Sandra valued children being engaged in active play and being agents of their learning, safety was always considered as the priority, and impacted on the degree to which children were free to make decisions independently regarding their opportunities for active play indoors.

Within the EMC model used for this study, the physical characteristics of the indoor space and concerns over children's safety were elements understood to be impacting on Sandra's decision-making and active play practices offered within the micro-environment of the setting (see Figure 21 EMC Model of Ceylon Early Years). Perceived as a dynamic system of factors, the influences explored in this section had to be understood as exerting bi-directional forces. Therefore, while Sandra's beliefs and values regarding the importance of active play were conducive to active play, the physical characteristics of both the classroom environment and the broader school environment revealed factors impacting on children's opportunities for active play. Interestingly, Sandra offered a range of approaches to try to over-come potential barriers to active play. Yet, the linking of multiple factors at the micro-level, including limited active play spaces and most indoor spaces being designed for sedentary tabletop activities, significantly impacted on children's opportunities to play actively in the indoor

environment at Ceylon Early Years.

6.5.1.3. Outdoor environment. The range of active play spaces and play resources present in the outdoor environment created a highly favourable space for children to engage in opportunities for active play. Unfortunately, on some occasions, children from a different early years classroom went outside at the same time as Sandra's classroom, in order to benefit from the active play spaces that were available. This incident was observed on the day that the researcher visited the setting. At the beginning of the outside play time, a structured PE class was being conducted in one part of the outdoor play space (the open space with trees available). This impacted on the actual spaces available to children in Sandra's class, as only one of the outdoor play spaces was available during the first part of the outside play time. Two classes overlapping during the outside play time limited children's freedom to make use of the area closer to the early years classrooms. Children therefore used only the covered outdoor space that was available until the PE class left.

Taking into consideration the effect that the unique characteristics of the environment might have on providing for and/or limiting active play behaviours, it is important to raise the question about the role that contextual factors had in relation to opportunities for active play at Ceylon Early Years. From analysing practices of active play in the outdoor environment in terms of active play spaces (related to Research Question 2), and factors impacting on active play (Research Question 3), the evidence showed that the physical structure of the outdoor play environment provided opportunities for active play. However, a range of contextual factors unique to the international school setting, such as temporal considerations of planning for timely use of the shared outdoor spaces (impacted on the optimum use of the active outdoor play. Some of these factors and their interconnectedness to the provision of active play at Ceylon Early Years are now discussed.

6.5.1.4. Academic pressures and expectations. As Sandra's Early Years setting was part of a broader international school, there was an expectation that a significant part of the day would focus on teaching to the curriculum and traditional

concepts and areas of learnings (e.g., literacy and numeracy) (see Figure 21 EMC Model of Ceylon Early Years setting). For example, Sandra was expected to show evidence of children's learning by creating and setting worksheets for children in her class. As Sandra explained, completing worksheets during regular school hours could last as long as one hour, depending on the child. "We all sit down together at the tables, to color it or trace the letters." Expectations set forth by the school administration were that children completed one to two worksheets a day, totaling five to six worksheets a week, which would then be sent home to parents on Fridays.

An increase in expectations for more formal learning and moving towards "a structured academic initiative" stemmed from within the international educational institution. This was perceived by Sandra as impacting on children's opportunities to engage in active play. These pressures, and the significant number of extra-curricular classes children that were expected to attend (see Section 6.5.1.5 Temporal elements), took up a significant amount of time. Overcoming the factor of academic pressures and expectations was understood to be a challenging endeavour.

6.5.1.5. Temporal elements. Significant events occurring throughout and across time have been captured in the temporal-level of the EMC model. Within the EMC model of Ceylon Early Years (see Figure 21 EMC Model of Ceylon Early Years), these types of influences were referred to as "temporal considerations". These factors were understood to be a "dynamic system that operates across space and time" (Spence & Lee, 2003, p. 12). For example, events occurring throughout Sandra's life showed that these elements were suggested to have a significant impact on Sandra's understandings, beliefs and practices related to active play. Other temporal factors, such as the scheduling of extra-curricular activities and specialist lessons, were other examples of temporal factors impacting on children's opportunities to engage in active play. Some of these factors are now discussed.

6.6. Sandra's lived experiences impacting within the micro-environment

Sandra shared her lived experiences of physical activity and active play and how these experiences significantly impacted on her behaviours and values towards active play exhibited at Ceylon Early Years. Sandra's lived childhood experiences included being free to move around and climb trees (see Figure 21 EMC Model of Ceylon Early Years setting). While the type of exercise practices and experiences in which Sandra had previously engaged had changed over the years, owing to a range of factors such as commitments after work, she continued to maintain her physical activity habits to some extent (e.g., practicing Zumba at home). While the intensity of the exercise decreased over time, Sandra still perceived herself to be an active person, because she was constantly moving with the children. Active play behaviours formed in her younger years had a positive influence on her approach to and engagement in active play at Ceylon Early Years. Sandra appreciated that she was still very agile, and she was able to get down on the children's level and engage in cricket matches with the children during outside play time.

6.7. A structured timetable that included extra-curricular activities

As mentioned earlier in this chapter, Ceylon's Early Years setting was required to plan explicitly for learning engagements that were in line with the school's curriculum. An aspect that had to be considered during Sandra's planning was the range of "extra-curriculars" offered to children in the early years. These classes, offered during regular school hours were taught by qualified educators who were experts in their field. Stemming from academic pressures and academic expectations, time slots for the specialist classes had to be planned so that they fitted into the structured classroom timetable. In Sandra's case, for example, this included classes, such as Library and Modern Dance, each of which lasted for half an hour. Other subjects such as Computing and Physical Education were one hour long.

Sandra did value children engaging in a range of learning experiences and acknowledged the dedicated time slots as part of her weekly planning and in her yearly

timetable. It was also understood that the time invested in attending the extra- curricular classes offered during the academic day did limit the amount of time that children had to engage in active play. However, despite Sandra's efforts to plan in time for children to be active throughout the regular school day, such as offering outside play time and extending outside play time for another 5-10 minutes, she was limited in ways to plan around specialist classes, as these were a requirement set forth by the school administration. Unfortunately, it was beyond Sandra's control to influence this factor, other than planning her practices of active play accordingly around those timeslots dedicated to specialist lessons.

In an effort to overcome the barrier at the temporal level (see Figure 21. EMC Model of Ceylon Early Years setting), it became evident, that the only way to do so was to find some time throughout the remainder of the school day to prioritize active play. Those days, where no extra-curricular activities had to be attended to after the morning break were considered to be more flexible. On such days the children were afforded the opportunity to stay outside for a longer period of time and then brought back in for a snack "In the morning we sometimes take them out at around 8:15am- 8:45/8:50 maybe." These extended opportunities outdoors to engage in active playing in the morning, however, were dependent on the timing of the specialist classes that children had to attend. With time being limited, creating time for active play remained rare throughout most of the school year.

6.7.1. Factors impacting on time available for active play practices at the macro-level

"Those larger or external systems (subcultures and cultures) that exist as part of a whole, each being impacted on and in turn cascading upon other systems (including cultural values, socioeconomic issues, customs, political issues, physical environments, sociocultural status, and access to resources)" (Brown, 2012, p. 371), were understood to be a factor significantly impacting on Sandra's decision-making and active play practices at Ceylon Early Years. This included factors more distal to the immediate environment (macro-level) that Sandra encountered and that could impact on her support for active play at her setting.

On the day of the observation a unique set of factors more distal to the immediate environment of Sandra's early years setting led to a disruption of the daily teaching and learning structure. With the upcoming celebration of the Singhala and Tamil New Year, preparations, celebrations were well under way in the greater community as well as in the school. In Sandra's class, this included rehearsing a Flamingo dance with the children in preparation for the grand performance held at school. This meant spending an increasing amount of time on practising the dance routines and refining the co-ordination of hand-leg movements.

With specialist classes to be visited, the time available for children to engage in active play to exert energy in a freely chosen, fun, and unstructured manner (Johnstone et al., 2018) was significantly limited. In addition to the time spent practising the dance, a seamstress visiting Sandra's classroom to take measurements of the children and to prepare costumes for the grand performance was a unique interruption to the daily routine, requiring a total of one hour at the end of the day. This visit had to be pre-planned according to the availability of the seamstress, and the availability of Sandra and the children, while being aware of time slots dedicated to children attending specialist classes. This complex set of interlocking factors at the macro-level of the EMC model (see Figure 21 EMC Model of Sandra's Early Years setting) meant a unique interruption to the regular school routine in Sandra's classroom.

Another element that impacted on opportunities for active play, was the mandatory lice check. On the day of the observation, bringing each child to the school nurse to get checked impacted on the tightly planned schedule. The need for children to walk all across the first floor, and past the canteen, required a significant amount of time, which in turn significantly reduced the time available to children to engage in active play. While this was a unique incident, it did show how decisions made outside the immediate environment of the school influenced opportunities of children's active play at Ceylon Early Years.

6.8. Summary of chapter

The intention of this chapter was to offer an insider's perspective of Sandra's Early Years environment, and of her understandings, beliefs and practices relating to active play. The chapter also recognised and highlighted the potential of the physical, human, and temporal characteristics unique to the context, and the impact that these factors could have on educator decision-making and consequently on children's opportunities to engage in active play. The EMC model helped to understand better the interconnectedness and the nuanced way that these individual and contextual factors impacted on Sandra's practices of and support for active play.

Of interest in relation to Sandra's interpretation and understanding of active play was that a number of her practices that she had indicated as being active play, would not be considered as active play according to the definition used for this study and the associated literature. This was associated with a certain degree of uncertainty in Sandra's interpretation and understanding of the term 'active play'. This was reflected in the example active play practices shared by Sandra that showed to be inconsistent and commonly present in the outdoor environment only.

While individual features related to Sandra, including her lived experiences, beliefs, and values, were significant in determining active play at Ceylon Early Years, what emerged was that the physical environment was fundamental in determining the range of opportunities. The outdoor environment was the dominant space offering children valuable opportunities for active play. Situated on the campus of an international school setting, Sandra's Early Years classroom was closely monitored in terms of the time dedicated to outdoor play, and that time was dependent on a range of factors, such as the structured timetable, which had to be aligned to meet the curricular and academic requirements set forth by the school administration. With opportunities created in the outdoor environment being bound to a range of factors, the availability of uninterrupted active play provided at Ceylon Early Years had to give way to a certain extent to more structured and sedentary learning engagements in the indoor environment following a formal/academic learning focus.

As presented in Chapter 6, an array of factors had the potential either to permit or to limit opportunities for active play offered at Ceylon Early Years. The EMC model was a useful tool in presenting the interplay of factors impacting across environments and in helping to show the barriers to active play and the potential approaches taken by Sandra to overcome these influences (see Figure 21 EMC Model of Ceylon Early Years), such as extending outside play time, making active play tools available to children and fostering children's agency and their decision-making in active play. While a range of barriers to active play remained, such as the academic pressures and expectations, this chapter has presented a detailed picture of the uniqueness of Ceylon Early Years, Sandra's appreciation for active play and her wish to offer children the opportunity to develop active play behaviours.

Chapter 7, the third and final data analysis chapter, now introduces Aditiya and the Montessori Early Years setting. Close attention is given to Aditiya's contextualised understanding and interpretation of active play and to the opportunities created for children to be physically active. The nuances of Montessori Early Years setting is explored to understand better those factors that impact on Aditiya's support for active play at Montessori Early Years.

Figure 21

The Microsystem of EMC Model of Sandra's early years setting

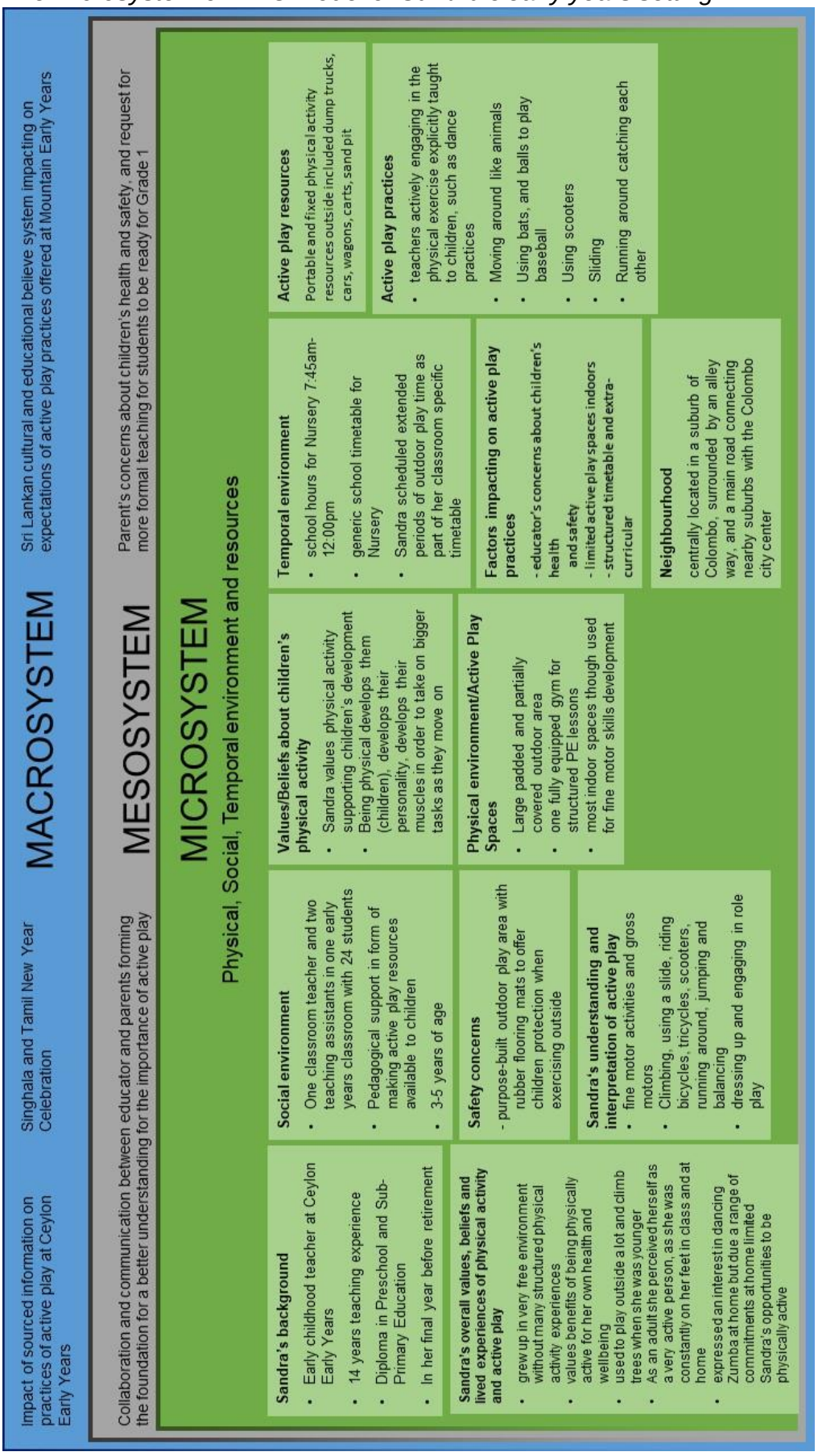
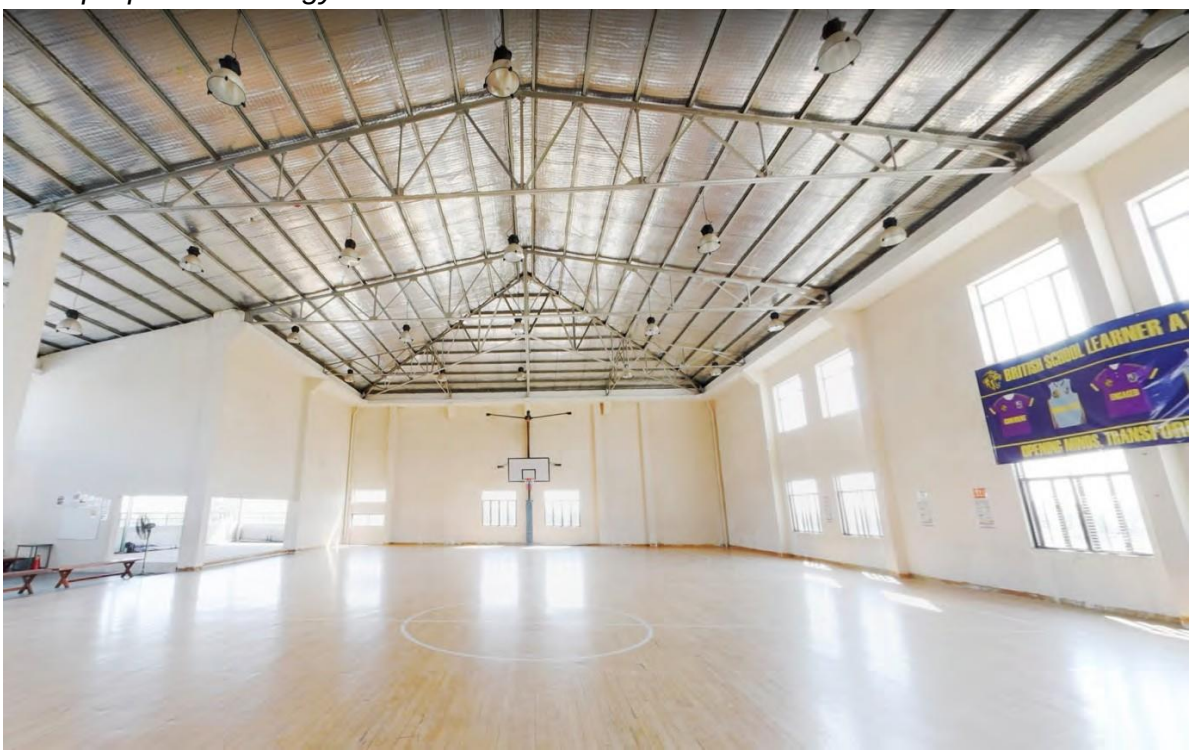


Figure 22

Padded and covered area showing fixed and loose equipment

Figure 23

Multi-purpose indoor gym



CHAPTER 7: ADITIYA AND THE MONTESSORI EARLY YEARS SETTING

7.1. Overview of the Chapter

The intention of this chapter is to report on and share contextual factors and idiosyncratic findings unique to Aditiya's Montessori Early Years setting. Detailed characteristics of the physical, social and temporal environments were captured and referred to using a dedicated EMC Model (See Figure 24 EMC model of Montessori Early Years setting). The chapter is divided into eight main sections. The first section outlines key information related to Aditiya's background, followed by an introduction of the physical characteristics of the Montessori Early Years setting. The chapter then shares key insights into Aditiya's understandings, values and beliefs related to active play. This is followed by details of the findings from an in-depth analysis of the active play environments and practices unique to the Montessori Early Years setting. The chapter concludes with a discussion of the idiosyncratic factors that impacted on Aditiya's active play practices.

The data provided in this chapter provides a detailed picture and a contextual appreciation of the immediate environment at Montessori Early Years. The EMC model of Montessori Early Years (see Figure 24 EMC model of Montessori Early Years setting) (found at the bottom of this chapter) is referred to throughout this chapter to help to make sense of, and to bring to the surface, the unique features of the early years setting and the idiosyncratic characteristics of the educator, Aditiya. The EMC model helped to provide a detailed understanding of the pervasiveness of those factors that impacted on Aditiya's decision-making regarding active play practices at Montessori Early Years.

7.2. Introducing Aditiya and the Montessori Early Years setting

This section of Chapter 7 offers an in-depth profile of the micro-environment that helped to create a contextualised representation of Aditiya and Montessori Early Years. Details of Aditiya's background, educational profile and educational philosophy, were captured in the micro-level of the EMC model (see Figure 24 EMC model of Montessori

Early Years setting) This is followed by an environmental scan of the physical setting of Montessori Early Years and includes a closer look at facilities and the surrounding community context.

7.2.1. Background of the educator

At the time of the study, Aditiya was an early years teacher in her mid-30s. Originally from Sri Lanka, Aditiya held a Bachelor of Science degree in Mathematics from the United States of America (USA). While completing her degree, she worked as a volunteer at a Montessori school setting. After finishing her degree in Mathematics, Aditiya went on to work as a Program Assistant at the World Bank in the USA. In 2005, she decided to move back to Sri Lanka and to work as a Management Trainer and in Human Resources at the DFCC Bank in Colombo, Sri Lanka, where she spent two years, before enrolling in a two-year Montessori program at Saint Bridget's Convent, Colombo. She then completed a Diploma from the Association Montessori International and went on to work as an early years teacher at a Montessori school in Colombo for two years. Aditiya then decided to open her own Montessori school in collaboration with another Montessori educator in 2012, where she was appointed to the position of co-principal and Montessori Directress (teacher).

Aditiya saw herself as being in an advantageous position, as she actively participated in classroom learning as the classroom teacher, whilst also being responsible for overseeing administrative decisions as Head of the early years setting. This unique position allowed Aditiya to make decisions at an administrative level that would directly impact on practices in the classroom. At the same time, those decisions were based on observations made in her position as an educator. Closely working together with children on a regular basis was understood by Aditiya as raising her awareness of the support that both children and teachers needed within the classroom.

7.2.2. The Montessori Early Years setting

Interestingly, opening a Montessori early years setting had been Aditya's objective since she enrolled in the Montessori course several years earlier. The Montessori method

is a teaching philosophy, developed by Maria Montessori, that emphasises that children learn best when situated in an environment that fosters their desire for learning. Aditiya's intention was to offer children a space where interest-based learning could be realised. In discussing her philosophy, Aditiya highlighted that it was important that children had the opportunity to engage constantly in and with the immediate environment at Montessori Early Years. In this context, the physical environment was understood to be essential in providing children with a range of learning experiences, both indoors and outdoors.

This section of the chapter presents the contextual and physical environmental features of Aditiya's early years setting in order to convey the idiosyncratic nature of Montessori Early Years. Viewed from a social-ecological perspective and employing the EMC model heightened an awareness of the characteristics unique to a particular setting, as well as the factors that either facilitate or limit active play practices. Information on the features of the physical environment (indoors and outdoors) that were situated at the micro-level of the EMC model (see Figure 24 EMC model of Montessori Early Years setting) is now discussed.

Positioned at the micro-level of the EMC model were the contextual details of the early years setting. For example, Aditiya shared that a number of requirements that were needed to be deemed a "suitable context" for a Montessori service (such as the location, physical characteristics and Montessori specific resources and materials). The context also reflected Aditiya's educational philosophy that aligned with the Montessori perspective and the strong belief in children learning in a variety of learning spaces, both inside and outside. Given this, the physical setting had to offer a range of areas for children to play and engage in learning that would allow for an effective implementation of teaching and learning practices that also aligned with the Montessori curriculum.

A location deemed suitable for the early years setting was found in a suburb of Colombo, located off a sideroad, and surrounded by family homes and a government institute. Integrated into a residential area, the location offered parents and children access to the setting from two sides. One of the entrances opened up to a residential

area, whereas the main gate was located on the busy sideroad. A concrete wall surrounded the setting, creating a boundary with nearby neighbours. On the other side of the building, a wired fence separated the education setting from the parking spaces that were available to residents and employees of the institute. Besides being a physical delimitation, the fence also served as a barrier to prevent children from exiting the early years premises. More context-specific details of the indoor and outdoor environment are now explored.

Within the early years setting, Aditiya was supported by a team of five teachers, catering for 34 children from 2 years to 5+ years of age. Consistent with the philosophy of the Montes-sori Method, all of the children at the setting were formed into one mixed-age group. The early years teaching team consisted of two teachers (each holding AMI Diplomas from Association Montessori Internationale), two teachers (each holding a Pre-School Teaching Diploma) and one Assistant Teacher (who was undergoing a pre-school diploma course at the time of the on-site visit).

7.2.2.1. The indoor environment. The indoor environment stretched over one floor, with one main area and four smaller rooms set up for an array of learning purposes. The rooms had no doors, so children were able to move freely from one room to the other. This feature is characteristic of learning environments that follow the Montessori method of education. The reason for this is that, in a Montessori environment, children are encouraged to show agency and independence during their learning process (Cattaruzza, 2018).

Other features within this space were bathroom facilities for children and adults and one room dedicated to Aditiya, serving as an office for more administrative tasks. A room used by both adults and children was the kitchen area. This space served the dual purpose of being used to prepare snacks, and of being a space where children could participate in cooking together with the educator. A staff room then offered a space to the adults to retreat to during break time.

Throughout the indoor environment, some of the learning spaces for children were set up with tables and chairs. These were used in the smaller rooms, as well as

in the main space for the purpose of small group learning engagements, such as writing practices, or for children to take notes when engaging with the play materials. To encourage children to engage with the play resources, Montessori specific learning materials were purposely placed all around the indoor environment. Specifically designed and set-up learning environments in the smaller rooms were openly accessible to children to encourage the independent exploration of Montessori specific learning experiences. A number of windows afforded natural light during the regular school day.

7.2.2.2. The outdoor environment. The outdoor area consisted of two main spaces. While one area was only used as a space only when children and families arrived at the school and entered the school grounds, the other outdoor space, consisted of a grassed field that was the main play area for children. In this space, children benefitted from a range of natural elements, such as trees that offered shade in the early morning hours. For the purpose of safety and physical delimitation, the outdoor area was fenced in (see Figure 25 The grassed outdoor play area resources). Spread throughout the outdoors space was fixed and portable physical activity equipment, such as a moveable slide that consisted of metal steps and a plastic slide, and a small sandbox with a cover that had been cemented into the ground next to the swing. In addition, a traditional trampoline, which had not been in use during the site visit, had been placed between the house and the fence leading to the parking area.

7.3. Aditiya's understandings, values of and beliefs related to active play in the early years

Aditiya highly valued being physically active for her own physical health and mental well-being and believed that movement and physical activity were significant contributors to her physical activity behaviour (Koch, 2018; Sando & Sandseter, 2020). She explained that, while growing up, and as a young adult, she used to be a ballerina until she moved back to Sri Lanka in 2005. As part of her training as a ballerina, she had been very meticulous in following her exercise routines. Her dedication to physical activity and the valuing of the health benefits associated with daily movement disciplines influenced and

shaped her educational belief about the important role that physical activity plays in shaping healthy development as well as in what constitutes developmentally appropriate active play practices.

In 2005, Aditiya moved back to Sri Lanka, where she started a family and had two boys, who at the time of the researcher's visit were three and five years old. Spending most of the time with her children then took priority and included any spare time after work, which meant a decrease in Aditiya's exercise routines. Physical activity shifted to revolving around her children's physical and sporting activities, which included going for walks with them. Whilst there was no time for Aditiya to engage in her own exercise routines, she still valued being physically active and expressed the hope that eventually she would be able to find some time again to go for a swim.

Within the context of Montessori Early Years, Aditiya expressed her valuing of physical activity for children's holistic development (social, emotional, cognitive) as well as their health and well-being. Engaging in active play was believed to help children to develop social skills and to become more confident. For example, Aditiya believed that as a result of children engaging in rough and tumble play they developed strong characters, unique personalities and the ability to play fairly with others. Aditiya also reinforced that children who previously lacked confidence in running around with other children, climbing trees, and using the swing were noticed to feel more confident in their physical abilities. With a growing number of opportunities to practise these fundamental movement skills, Aditiya saw physical activity as being a vehicle to support further other holistic benefits, such as building social skills, interacting with others, and having fun.

Aditiya revealed that her educational belief system was strongly defined by the philosophy of the Montessori Method. This approach strongly impacted on and shaped the teaching and learning practices offered at Montessori Early Years. To gain a better understanding of Aditiya's educational philosophy, it is important at this point to offer further insights into the Montessori approach, with a particular focus on elements of teaching and learning. Considering that approaches to teaching and learning are

situated within the immediate educational environment, the very close alignment and pervasiveness of this factor has been introduced at the micro-level of the EMC model.

One of the main beliefs of the Montessori teaching philosophy is that teaching should be shaped and guided by a child's interest and needs. Faryadi (2017) explained that the intention of the Montessori Method was to grow children's competency and sense of responsibility. This is believed to be achieved when children are offered the opportunity to express themselves and their unique needs throughout a choice of learning experiences. Aditiya strongly valued children being capable individuals, who needed to be guided and encouraged throughout this process. Aditiya's belief in children being capable and able learners also translated to children's active play, where she afforded them the opportunity to demonstrate their full potential when offered opportunities to express and explore their interests.

Interest-based teaching and learning were key element of the Montessori curriculum and were valued by Aditiya as a significant part of her educational teaching and learning philosophy at Montessori Early Years. Whilst educators commonly followed children's interests and guided them through the learning process, certain circumstances required educators to use direct instructions to support children's engagement in active play (aligned with the Montessori philosophy and curriculum). This usually occurred when children explicitly requested support from an adult. For example, this was the case when Aditiya introduced children to new learning resources and materials and taught them how the manipulatives were intended to be used according to the Montessori Method.

Aditiya valued that children who attended her setting had opportunities to enjoy a variety of learning experiences, including opportunities for active play. This type of play included children running around freely in the garden, as it was understood to help to exercise children's limbs and to raise their heart rates. As active play was understood to take place mainly in the outdoor environment, children were perceived to benefit further from being exposed to fresh air. In addition, being around the greenery was also believed to develop children's senses, in particular when engaging in tactile play

with sand and other natural materials. This perspective very much also aligned with the holistic teaching and learning approach adopted in the Montessori philosophy and curriculum (Bahmaee et al., 2016).

Aditiya explained that whilst she was introduced to the term "movement-based learning" when learning about the Montessori Method, the term 'active play' was new to her. Active play had not been discussed throughout her educational degree, nor had she come across it during her scholarly reading of educational and peer-reviewed articles. The term "movement-based learning", on the other hand, had often been linked to gross motor movement, and associated with ways that children were active outdoors, particularly in the garden.

Once the term 'active play' was shared with Aditiya, as part of the interview and discussion, she was keen to differentiate between the terms "movement-based learning" and 'active play'. She explained that, while she had not studied the terms 'physical activity' and 'active play', she approached the terms from a literal point of view and wanted to share what she believed that the terms meant. Her stated understanding of these terms was based on her prior knowledge about the approach of movement-based learning in the context of a Montessori learning environment.

Aditiya expressed that, "movement-based learning" was understood to be an approach to learning through movement, where children used their body and their fine motor skills. Aditiya explained that, while developing fine motor skills was needed for writing, those activities were not seen as a way for children to exert energy, nor were they understood by Aditiya as falling under the umbrella of active play. Energy expenditure was rather associated with the practising of fundamental movement skills. Using the body to complete tasks was in itself not necessarily believed to require children to be physically active.

For the purpose of clarity, Aditiya found that it was important to differentiate between exercise that promoted the development of fine motor skills and exercise that supported fundamental gross motor skills. Fundamental movement skills were

perceived to support the development of muscle groups needed when walking, running around or jumping on the trampoline. Aditiya's critical way to approach and analyse the terms helped her to understand that fundamental movement skills were needed to support children's physical development. Physical activity, also referred to as "kinesthetic learning" by Aditiya, was understood to focus on those gross motor skills that were essential in supporting children's health and wellbeing. At Montessori Early Years, Aditiya found that it was important to be aware of the different types of movement-based learning/kinesthetic learning, and of the need for appreciating and using a range of structured and unstructured forms of physical activity that afforded for children's development of gross motor skills. These beliefs and understandings were reflected within the micro-environment of the EMC model (see Figure 24 EMC model of Montessori Early Years setting).

Considering that active play was observed to occur most often in the outdoor environment, a space frequently used by children, Aditiya encouraged children to be active participants in creating opportunities for active play. For example, children were perceived to create opportunities for active play in the garden area independently, by for example, initiating chasing games, running around in groups, or actively playing in the sandbox. For Aditiya, children's independence, was also referred to as child agency. Aligned with the Montessori perspective, Aditiya believed a child's independence to be an important element and opportunity for children making their own decisions on how to be physically active.

An essential feature of the Montessori Method, that shaped a significant amount of the regular learning at Montessori Early Years, was the engagement with Montes- sori specific learning resources/materials. Children at Aditiya's setting were given a number of opportunities to explore learning around the classrooms, visiting different learning stations that were set up throughout the in-door environment). For example, Montessori inspired learning stations consisted of practical life exercises, sensorial exercises, learning to read and write, and Mathematical operations. The Montessori learning activities offered occurred predominantly in the indoor environment and were mostly of

a sedentary nature. Aditiya's dedication to and valuing of physical activity, active play and the health benefits associated with daily movement disciplines influenced and shaped her educational belief significantly. Aditiya planned for and set aside time for children to engage in developmentally appropriate active play practices at Montessori Early Years.

A detailed understanding and overview of Aditiya's background provided a greater appreciation for the way that Aditiya viewed and understood the term 'active play' and brought to the surface her beliefs and values attached to the importance of active play (in relation to her own health and to the health and development of her students). This background into the educator's history and thinking provided insight into her contextualised decision-making about active play at Montessori Early Years. Further, these insights into Aditiya's thinking, beliefs and lived experiences demonstrated that these features and characteristics did not sit in isolation, but were complex in terms of being integrally woven, embedded and interconnected. Adopting a social-ecological perspective in which to view and make sense of Aditiya's background, values and understandings of physical activity and active play, as well as the pervasiveness of the Montessori perspective, curriculum and methods adopted, provided insights into the impact that bi-directional factors across levels of multiple systems at a micro-, meso- and macro-levels have on the active play environment and practices offered at Montessori Early Years (see Figure 24 EMC Model of Montessori Early Years setting).

7.4. Making sense of active play environments and practices at the Montessori Early Years setting

This section of Chapter 7 presents in more detail the unique active play environments, features and practices at Aditiya's Early Years setting. This detail continues to shine a contextual lens into the play spaces that reflected Aditiya's efforts to support children's active play at Montessori Early Years. A dedicated EMC model helped to make sense of the idiosyncratic factors impacting on the active play spaces and practices of Montessori Early Years setting.

7.4.1. Active play environments

Active play environments were captured at the micro-level, the most immediate environment that sits within the centre of the EMC model (see Figure 24 EMC model of Montessori Early Years setting). At Montessori Early Years, these active play environments were mainly located within the garden area that was part of the main outdoor space available to children. The nature of the open grassed field was observed to promote children's opportunities for active play. Within this space, children had the opportunity to run around freely, play in the sandpit, and use the slide, the swing and a balance beam. A range of features of the outdoor space was understood to be conducive to active play and is now explored further.

7.4.1.1. The grassed area. In the grassed play area, a two-seater swing was fixed into the ground for the purpose of stability. Another active play resource that had been added to the outdoor environment for children was a commercial child-safe trampoline. In addition, a safety net was attached to prevent children from falling off the trampoline.

Aditiya had strategically placed the trampoline under the veralu tree (Sri Lankan olive oil tree) in the garden area, so that children could exercise while being in the shade. Interestingly, from speaking to Aditiya, the trampoline was one of the active play resources most regularly used by the children. Aditiya argued that the children's excitement about the trampoline was due to it being the latest active play resource that had been added to the outdoor area. During the first semester of the school year, all children joyfully engaged in jumping on the trampoline.

Unfortunately, the active play resource lasted only a short time before it required fixing, as one of the springs broke. Aditiya therefore made the conscious decision to ask children to refrain from using the trampoline and stored it in a storage area next to the service. Not having a trampoline as an active play resource meant that Aditiya either had to find a replacement in the form of another active play resource or had to seek assistance in repairing the trampoline. At the time of the researcher's visit to the setting, the trampoline was still set aside to be fixed. Approaches taken by Aditiya to

overcome the lack of active play resources, and steps taken to fix the trampoline are discussed further in this chapter.

A resource valued by Aditiya as facilitating active play outside was the slide. This was located under the veralu tree and was cemented into the ground for the purpose of stability. Similarly, to the placements of other outdoor resources, Aditiya had chosen the garden areas as the location for the slide, as it offered children the opportunity to engage in active play, whilst being protected from the direct sunlight, which otherwise led to the slide being blisteringly hot for much of the day. While the slide was fully functioning, extensive exposure to the heat and the sun had caused the paint to come off. Although this impacted on the visual appearance of the slide, the actual purpose and function of the slide and its structure were not affected by the heat and the direct sunlight. Children were able to hold onto the handlebar on the side of the ladder and t o climb up the slide independently and safely. Having reached the top, the children were offered the opportunity either to climb down again by holding onto the railing or to slide down.

7.4.1.2. The indoor environment. Aditiya acknowledged that most active play happened outside. However, considerable thought was given to the indoor environment and to the opportunities that these spaces offered for active play. Interestingly, Aditiya perceived the indoor environment as a space that had the potential for providing opportunities for movement-based learning.

7.4.2. Active play practices

Throughout a range of engaging conversations with Aditiya, the notion about the importance of active play, particularly in the early years, was addressed. Active play practices were understood to be ways to encourage children's engagement in movement-based learning and were seen as an additional support mechanism. Discussions with Aditiya stressed that in order to implement successfully movement-based learning and to create opportunities for children to be physically active, rigorous planning was needed that considered the best use of the active play spaces and active play resources available. Aditiya attributed limited opportunities for

unstructured active play practices to the layout of the indoor environment and to the arrangement of the classrooms at Montessori Early Years. The indoor spaces available were more suitable for more sedentary learning experiences. However, in an effort to offer movement-based learning inside, Aditiya planned for and guided structured forms of physical activity. One such practice embraced by Aditiya was to teach students about mathematical concepts using movement (kinesthetic learning). This was achieved by asking students to participate in an activity used to promote their understanding of addition. The children were asked to collect numbers that had been spread out in the main room of the setting and to return them to the maths center. Activities of this sort were valued for raising children's heart rates, as students had to get up, move towards the cards and return to the starting position. Aditiya was aware that such activities were a form of light physical activity, rather than active play, but she saw these types of practices as opportunities for children to move around inside, which aligned with multiple learning outcomes, including kinesthetic learning.

Aditiya discussed that it was more common for children to engage in active play in the outdoor environment, particularly in the garden area. This was attributed to the larger open area outdoors. Within these spaces, children were involved in running around the grassed area and catching one another. Children initiated a number of tagging games, often changing the person tagging, and inviting peers to join in at any time. Other children practised their balancing on a balance beam, using their arms to keep their balance, and taking one step at a time in order not to fall of the beam. Children also took turns using the two-seater swings that were available outdoors and used their feet to push themselves off and into a swinging motion. With a range of active play resources available, such as softballs, which were at the immediate disposal of the children, some children were observed practising their throwing and catching skills either on their own, or in pairs. Opportunities created for children to be physically active were located as a factors at the micro-level of the EMC model.

7.4.2.1. Pedagogical support for and belief in child agency.

Interestingly, Aditiya's decision-making regarding outdoor active play spaces, the type of active play practices offered and the pedagogical support provided to children at her setting, were defined by her underlying assumptions, beliefs, and values about the importance of active play for children's health and well-being (as outlined in Section 7.3 and as captured within the micro-level of the EMC model). Pedagogical support mechanisms therefore needed to be viewed through the perspective of the unique context of this particular case. A range of pedagogical support mechanisms that were stated by Aditiya as facilitating active play at Montessori Early Years is now be addressed.

For the purpose of this particular case, it is important to point out that the nature of the educational philosophy embedded in the Montessori Method formed the foundation for Aditiya's teaching and learning, as well as for the pedagogical support practices she provided. In this context, Aditiya's teaching practices were understood to be shaped by her values and teaching philosophy and guided by the children's interests and needs (Faryadi, 2017). This meant that children were seen as agents of their learning. They expressed their needs and wants and the educator then offered support.

To Aditiya, following a child-interested approach meant that as part of her practice she could take time to sit back and observe children's active play, and to offer support only when needed or requested by the children. This was also the case when children engaged in learning experiences that facilitated the practice and development of fundamental movement skills. If children expressed an interest, teachers introduced children to the activity and explicitly explained the correct use of active play manipulatives and/or the correct execution of fundamental movement skills. One example shared by Aditiya was the balance beam activity. On several occasions throughout the year a balance beam was placed in the outdoor environment. Children who were interested were allowed to explore their balancing skills. If needed, teachers supported the children, such as asking the child to use their arms to balance themselves. If further support were needed, teachers offered to hold the child's hand,

until the child felt more confident.

Aditiya valued that taking time to observe children's play was essential to her teaching practices, as she gained deeper insights into children's interests, confidence levels, decision-making and their physical activity behaviours. During these times, Aditiya gathered some insightful information about children's active play and their level of interest in physical activity and concluded that not all children were naturally inclined to be physically active. Being a firm believer in offering each child the best possible environment and support to engage in active play meant that she would offer words of encouragement and invite children to participate and engage in active play experiences, particularly those who were reluctant to engage in these types of experiences.

As an underlying principle of the Montessori Method, the pedagogical practice of encouragement was understood to be one of the main approaches adopted to support children's learning and to build confidence in their movement and child agency. Valuing each child, Aditiya recognised varying levels of confidence in physical movement among children. Sometimes she saw the need to go beyond just offering words of encouragement and actually to participate in active play to encourage children to make use of the active play spaces and active play equipment provided in the garden area. Aditiya's efforts in adding the additional layer of support to ensure that children benefited from being physically active was captured as a factor at the immediate environment of the sector and reflected at the micro-level of the EMC model of Montessori Early Years.

Aditiya concluded that, despite the efforts made to encourage children to engage in active play, only mixed success was achieved. An approach that was shown to be more effective in facilitating active play over the years was the interaction between students. Children had been perceived as being more willing to accept suggestions made by their peers and to be open to learn from others. Often referred to as "constructivism" (Heberle, 2020), this type of peer support included harnessing the competency of other children as a strategy for demonstrating to others how to use active play resources and

inviting their classmates to join active play. Aditiya commented that she embraced this strategy of peer-to-peer support as it was a way of children encouraging a reluctant child to engage in an active play experience with another, more focused child. This type of approach that adopted a fine balance between adult-support and interaction between children proved to be a promising practice to support children's active play behaviours at Montessori Early Years.

7.5. Factors impacting on active play practices at Montessori Early Years setting

Throughout the semi-structured interview conducted with Aditiya, a number of factors across a range of levels of influence, such as the micro-, meso-, and macro-levels, ranging from the immediate environment of the setting to more distal factors, was identified and understood either to support or to limit active play. These insights helped to inform understandings particularly related to Research Question 3: "Which factors impact on early-childhood educators' decision-making about active play practices and environments within Colombo early years settings?" A range of these factors is now addressed.

7.5.1. Factors impacting on the affordances of active play practices at the micro-level

A number of context specific factors situated at the micro level of Montessori Early Years impacted on the facilitation of active play. Factors included limited physical space, the set-up of the outdoor environment and the duration of a regular school day. Owing to their proximal nature in relation to the phenomenon, these factors significantly influenced opportunities for children to be physically active at Montessori Early Years. These factors are now explored in more depth.

Limited physical space. In a Montessori learning environment, the indoor and outdoor spaces are commonly valued as features that have the potential for contributing to children's successful engagement in learning. For the purpose of this study, spaces of interest were referred to as those that were conducive to children's structured and unstructured forms of physical activity and active play. Considering the range of

practices offered at Montessori Early Years, it was important to take a broad approach and to look at all the spaces understood to provide for movement-based learning. Interestingly, only certain spaces at Montessori Early Years were stated as being conducive to active play.

Using the EMC model helped to make sense of the idiosyncratic features of the physical environment that were identified as either facilitating or limiting active play behaviours. In the interest of this study, it was important to present a clear distinction between those spaces that facilitated physical activity and those that addressed active play. Discussing the nuances of those active play environments and active play practices identified at Montessori Early Years was helpful in informing the second research question for this inquiry, "Which active play practices and environments were evidenced?".

Aditiya stated that she valued the indoor environment as holding the potential to offer children the opportunity to engage in physical activity. With learning engagements distributed on the floor of the main room, spaces to move around in the indoor environment were limited. Engaging in active play was therefore perceived as a potentially disruptive behaviour and counterproductive to children's engagement with the Montessori learning resources. This led Aditiya to conclude that the indoor learning environment was unfavourable for active play.

Aditiya did suggest that the classroom set-up could be converted to suit teacher-guided forms of physical activity. Aditiya acknowledged the potential of such an approach to achieve a balance of sedentary and physically active moments throughout the regular school day. On the day of the site visit, Aditiya offered a structured dance practice in preparation of the Singhala and Tamil New Year Celebration. This practice involved children moving around in the classroom following a set dance routine. This activity did raise children's heart rates and was perceived by Aditiya as a fun way to encourage children to move. However, considering the term 'active play' as defined for this study, these dance practices, while valuable and fun, would not be defined as child-initiated forms of active play, but rather as a structured form of physical activity.

In the outdoor environment, Aditiya was faced with the challenge of two colliding values, that had the potential to impact on children's opportunities from active play. The first factor was that she valued children from different ages learning and playing together, while being outside simultaneously. At the same time, Aditiya valued children being safe while engaged in active play outside. From a social-ecological perspective the open space outdoor could not be viewed in isolation. Instead, the available active play space had to be viewed in the context of these types of factors, the actual physical spaces available outdoors and the number of children attending Montessori Early Years. The interconnectedness of Aditiya's values impacting on her decision-making related to facilitating active play was reflected at the micro-level of the EMC model for Montessori Early Years.

On a regular day, a total of 34 children from 2 to 5 years of age were outside at the same time. Considering the physical characteristics of the outdoor environment at Montessori Early Years, the physical spaces available did not provide for the open area necessary for all children to be physically active. Instead, active outdoor played often resulted in crowding, children intersecting one another's paths and impacting on the free movement in the garden area. To prevent continuous crowding, Aditiya decided to divide the children into two groups and to organise different times throughout the school day for children to be in the main grassed area.

Aditiya saw this as a practical solution that could be applied to similar situations where the limited physical spaces impacted on children's participation in active play outdoors. This was the case, for example, when Aditiya planned opportunities for structured forms of physical activity geared towards older children at the setting. This included practising fundamental movement skills that were developmentally appropriate for children 4 to 5 years of age. Under those circumstances, children were said to benefit from being divided into smaller groups, and to conduct their activities outside at different times of the day. This was seen as a promising way to provide opportunities for active play for the younger children at the setting by making more space available to them, with the intention of making them feel more comfortable in taking risks. Interestingly, Aditiya

concluded that a staggered outdoor play time was intended as a solution to overcome the limited physical outdoor space in exceptional cases and was not supposed to become a practice used on a regular basis.

The common practice remained that all children at the setting shared the available outdoor space at the same time. Despite the limited space available at Montessori Early Years, Aditiya felt that the children were happier when they were all outside at the same time. Only one expectation was upheld, and that was that, in order to accommodate all children at the same time, all the teachers had to be outside and to uphold standards of supervision understood as necessary and appropriate to create a safe active play environment.

7.6. The setup of the outdoor environment

After discussions with Aditiya, it became evident that one of the essential components of the Montessori Method was educators creating environments that were conducive to learning and to encouraging learners to strive for excellence at their own pace (Faryadi, 2017). Teachers therefore invested a significant amount of time, thought and effort into setting up the outdoor environment to facilitate opportunities for active play. From a social-ecological perspective, these considerations were not to be viewed in isolation, but intead in the context of the idiosyncratic nature of the setting - in this case, features of the physical outdoor environment of Montessori Early Years.

From Aditiya's perspective, teacher involvement occurred on several occasions, and was valued as potentially contributing to more opportunities for active play (Ng et al., 2020; Truelove et al., 2017; Ward et al., 2015). For example, on Splash Days, the environment was set up by the educators to promote active play outdoors and for children to enjoy a day of fun water play. Aditiya and the other teachers dedicated a significant amount of time and effort to set up a paddling pool for children to cool off during the hot hours of the day.

Retrospectively, Aditiya realised, that an entire school day was dedicated to Splash Day, and, when considering the time and effort that it took to plan and prepare the activity,

it was not perceived as being effective in relation to children's actual engagement in active play, which resulted in a maximum of 30 minutes. Aditiya came to the conclusion that it was not feasible to organise Splash Days on a regular basis, and accordingly made the conscious decision to limit the event to once a term. This decision was also made on the basis that it was important to appreciate the range of commitments throughout the regular school year that needed further attention. This included learning engagements set by the Montessori Curriculum, such as introducing children to the Montessori resources, offering time to children to explore the re-sources independently, and to foster interest-based learning, setting aside time to prepare for Singhala and Tamil New Year, or other celebrations, and preparations for children to transition to Grade 1.

The rich details provided in the examples presented, helped to illuminate how the interplay of factors located across the micro-meso and the macro-level impacted on Aditiya's decision-making to facilitate active play at Montessori Early Years. The pervasiveness of those factors impacting on showed that it was important to understand better the idiosyncratic nature of those factors. The EMC helped to show the bi-directional forces unique to Montessori Early Years. This was of value as it highlighted the need to acknowledge a complex set of elements when setting up active play environments (see Figure 24 The EMC model of Montessori Early Years setting).

7.7. The temporal environment

Elements of the temporal environment, defined here as "a dynamic system that operates across space and time" (Spence & Lee, 2003, p. 12), included elements such as the time of the day, following structured timetables, and the sequence and length of routines, including meal time and nap time, as well as the time spent transitioning between different classes and learning engagements in the indoor as well as the outdoor environments. Elements situated in the temporal environment were identified as impacting on the educator's support for children's active play at Montessori Early Years. These temporal considerations were under-stood to be situated within the immediate environment of Montessori Early Years and have been captured within the EMC model

(see Figure 24 EMC Model of Montessori Early Years setting). Key elements of the temporal environment are now be explored.

Closely linked to Aditiya's decision to follow the Montessori teaching program was her approach to plan daily routines and to offer dedicated times for active play at Mountain Early Years. This included, for example, following a staggered arrival time from 8:00-8:30am, and offering a dedicated time frame from 8:30-10:00am for children to engage in structured Montessori learning activities in the classroom. 30 minutes of snack time from 10:00-10:30am were followed by 30 minutes of outdoor active play time from 10:30-11:00am, with the day concluding between 11:00-11:30 with story time, whole class discussions or arts and crafts activities (see Figure 27 Classroom specific timetable showing daily routines).

Aditiya valued a structured daily schedule as being a helpful tool in offering children clearly defined routines. With such a structure in place, Aditiya believed it to be easier to identify those times throughout the regular school hours, that allowed for additional opportunities for outdoor active play. While following a set of daily routines that gave the school day a regular structure, Aditiya saw that a certain flexibility in structuring the day was beneficial in supporting and affording for active play at Montessori Early Years. This was based on the concept of the Montessori Philosophy and Curriculum not following a strict daily timetable. A common situation that Aditiya had come across at Montessori Early Years was children using the swings outside, well past the scheduled outdoor play time. Following this observation, a flexible timetable was then perceived as a way to support Aditiya in her decision-making to extend the time that children spent in active outdoor play.

Following the Montessori Method meant that a significant amount of time was spent engaging in fine and gross motor skills activities at low levels of physical activity. Interestingly, in this case, Aditiya's valuing of active play and of the awakening of children's interest in active play practice through interaction with active play environments and active play resources, was understood to impact on the way that she integrated active play at her setting. The challenge that Aditiya faced was that

children needed a significant amount of time to explore and engage in Montessori learning experiences. This left her with limited time to plan active play experiences. Aditiya addressed this challenge by offering a set time each day for children to spend in the outdoor environment (see Figure 27 Classroom specific timetable showing daily routines). Her valuing of active play led to the adaptation of the schedule to enable children to increase their participation in active play.

7.7.1. Factors impacting on the affordances of active play practices at the meso-level

Over the years, Aditiya had experienced a range of unique cases related to children's motivation to engage in active play. She learned that, if a child preferred to engage in sedentary forms of play, despite a number of measures taken by her and other educators on site to encourage a child's participation in active play, further steps were needed to gain a better understanding about the child's background and the reasons for their limited motivation. She noticed that factors influencing a child's participation in active play went beyond factors within the immediate environment. These factors often occurred at the meso-system, particularly within the family environment, a layer of influence that was outside the immediate educational setting, but that exerted a certain impact on behaviours exerted in the immediate environment of Montessori Early Years (see Figure 24 EMC model of Montessori Early Years setting).

Aditiya noticed that parental support for active play (which can be understood to sit at the meso-level of a social ecological model) was a factor that impacted on children's participation in active play at Montessori Early Years. In those cases, where children demonstrated a lack of interest and/or confidence to participate in active play, regular communication and collaboration with parents were stated as being beneficial to the child's health and well-being. Aditiya understood that a child's exposure to active play at home, in turn offered a potential explanation why the child showed limited confidence or interest in active outdoor play at Montessori Early Years.

Aditiya addressed this issue and went as far as contacting the parents to discuss the routines that the child was following at home, learn about children's levels of

confidence in active play and inquire into opportunities created for the child to be physically active inside or outside after school hours. For example, what emerged from a story shared by Aditiya was that one of the children who attended the Montessori setting regularly showed signs of fatigue. Only through several discussions with the child´s parents did it become evident that the child was taking naps around 4pm at home with grandma every day and woke up at 6:30pm when both parents returned from work. A habit then was to have the child play with the phone and watch television until 9:00pm. While this was beyond Aditiya's area of influence and responsibility, she was genuinely concerned about the child's health and well-being as routines offered at home were understood to impact significantly on the child's limited participation in active play at Montessori Early Years.

One important benefit of using and referring to a dedicated EMC model for each setting was the value that the model added to elaborating the complexity of factors that were stated by the educators as influencing on practices of active play within the context of the early years setting. These factors and layers of influences were understood to be complex, bi-directional and embedded in context, as evidenced across and through multiple systems. In this case influences stated by Aditiya as occurring at the meso-level (the home environment) were understood to affect children's inclination to engage in active play experiences at the Montessori Early Years setting.

While a thorough exploration of the parent/educator relationship would have gone beyond the scope of this study, Aditiya's genuine interest in children's health and well-being was clear, and efforts made to support children went beyond her regular responsibility as a classroom teacher. She believed that, if the children were well integrated, they would be more confident about participating in active play. For the purpose of this study, it is important to highlight that Aditiya's attitude towards offering every child the support needed at the setting stemmed from her belief that, as a significant adult in the setting, she had a responsibility to ensure children's health and well-being. She therefore took all the necessary steps to support children and their families with this focus in mind. Aditiya explained that she would go as far as to learn

about children's habits and routines at home and to gain a better understanding on how those routines at home impacted on the child's confidence about participating in active play outdoors at the early years setting.

7.7.1.1. Maintenance/Fixing equipment. A factor located outside the immediate environment of Montessori Early Years and understood to impact on children's opportunities to engage in active play was the lack of out-sourced professionals who were able to maintain and fix active play resources at Montessori Early Years. Aditiya confirmed the complexity involved with maintaining active play equipment. This included feasible and affordable repairs, such as repainting the swing and resurfacing the slide, as well as the more complicated maintenance of the trampoline. Aditiya explained that the challenges encountered with the repair of the trampoline had been very un-fortunate, as the children were fascinated by the new active play resource and had been using it regularly. From a social-ecological perspective, it is important to note, that, while Aditiya valued children's passion and excitement to use the trampoline and engage in active play, a higher value was attributed to children's safety and to minimising the risk of children getting injured (see Figure 24 EMC Model of Montessori Early Years setting).

When the springs of the trampoline broke, Aditiya saw the need to seek professional maintenance to ensure that the environment and the active play equipment available to children were safe. In the meantime, Aditiya believed that it would be best for children's health and wellbeing for them to refrain from using the trampoline. Despite several attempts made by Aditiya, after two months of searching for and trying to locate professionals who could fix the trampoline, no solution was found. Aditiya explained that this was also partially due to the challenge of getting the correct repair parts needed for the trampoline used at Montessori Early Years. At the time of the semi- structured interview, Aditiya was still committed to finding solutions but admitted that at this point the trampoline had been out of order for two months and would most likely remain so until a solution was found.

7.7.2. Factors impacting on the time available for active play practices at the macro- level

The layer most distant to the educator's immediate environment was referred to as the macro-environment. This was understood to be made up of those external systems that were most distal to the individual, and included values, traditions, sociocultural characteristics, subcultures and cultures. These existed as part of a larger culture as a whole, with each being impacted on and in turn influencing upon other systems, such as cultural values, socio-economic issues, customs, political issues, physical environments, sociocultural status, and access to resources. For the purpose of this study, it was important in the development of and inclusions in the EMC model that factors at the macro level were also considered and accounted for. However, after a rigorous and robust analysis of the information collected related to Montessori Early Years, Aditiya confirmed that the factors located at the macro-level were not perceived as impacting on the facilitation of active play.

7.8. Summary of the chapter

This chapter offers a rare insider's perspective into another of the study's early years settings, Aditiya's early years environment, as well as an educator's understandings, beliefs and practices related to active play. These insights help to understand better how physical, human, and temporal factors can afford or deter opportunities for children to engage in active play at Montessori Early Years. The EMC model provided a visual mechanism and a dedicated tool of analysis to explore further and to understand how a range of individual and contextualised factors unique to the setting, impacted on Aditiya's practices of active play.

The chapter shared Aditiya's understanding of key terms, such as movement- based learning, play, fine motor skills and gross motor skills. While not completely convinced of the meanings associated with the terms 'physical activity' and 'active play', Aditiya was able to logically deduce a working definition logically, considering that the definition provided for 'active play' for this study, was correctly associated with children engaging

in opportunities that raise the heart rate. What became evident was that while movement-based learning was associated with the in-door environment, active play was understood to occur and was evidenced in the outdoor environment. Aditiya attributed the benefits associated with children being physically active to the time spent outdoors. This included the development of social skills, interacting with and learning from others, being exposed to fresh air and building confidence in being physically active. Aditiya's in-depth account of her understanding of active play was helpful in identifying the type and number of active play practices offered at the setting.

The active play provided at Montessori Early Years shed a light on the importance that the physical features of the environment had in determining children's ability and freedom to be physically active. A number of active play resources, such as the swing, and the slide and the grassed area, were identified as features facilitating active play. On the other hand, other factors, such as the confined spacing outdoors, as well as the need to maintain active play resources, and the number of children who were often present within this space, were identified as features of the physical environment limiting children's active play behaviours.

What emerged from an appreciation of this context was that the Montessori Method and the educational values followed at Montessori Early Years influenced Aditiya's educational philosophy. Aditiya's beliefs and values associated with teaching and learning were formed out of her belief in the value of the Montessori Method. These beliefs both informed and under-pinned the practices offered at her setting, including opportunities for active play, and learning engagements. Attempts provided by Aditiya to plan active play experiences derived from her strong valuing of the importance of physical activity for children's health and well-being.

The EMC model was a useful tool that helped to present the interplay and inter-connectedness of those factors impacting across environments, while also showing the barriers to active play and potential approaches taken by Aditiya to overcome those influences. While a range of barriers to active play remained, this chapter presented a detailed contextualised depiction of Mountain Early Years. Together with the school

setting, the chapter focused on Aditiya's appreciation of active play on her wish to offer each child the opportunity to develop active play behaviours.

Chapter 8 now focuses on insights gained from exploring the three research questions. References are made to the data outlined in Chapters 5, 6 and 7, with the focus being on sharing key holistic reflections on the data. Further insights on contributions of this study to theoretical, methodological and conceptual knowledge, as well as contributions to policy and practice, are explored. The thesis concludes by recommending ways in which policy and practice can support active play in early years settings within Colombo, Sri Lanka, and more broadly, by distilling insights that can be transferred across settings and contexts.

Figure 24

EMC model of the Montessori Early Years setting

Figure 25

Showing the grassed outdoor play area and the active play resources

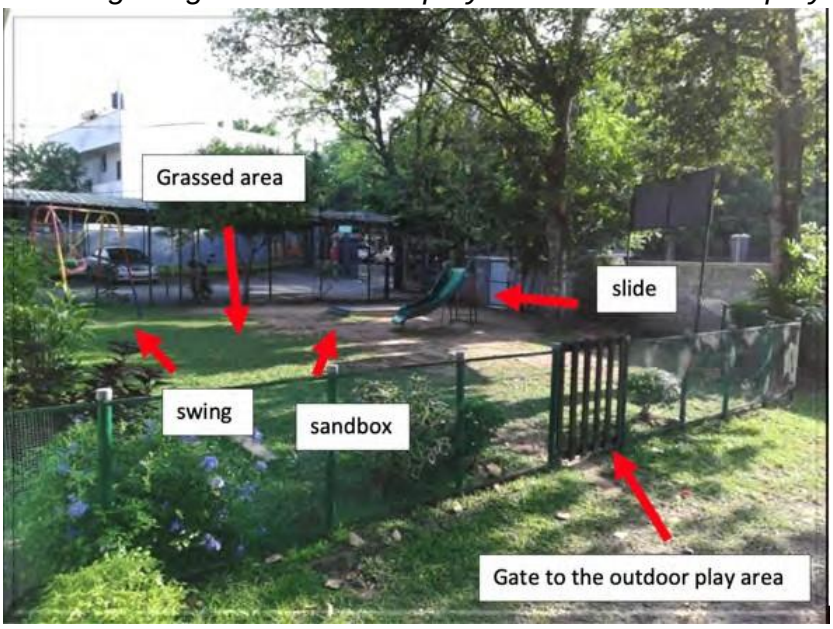


Figure 26

Structured timetable impacting on active play

8.00 am to 8.30 am - Children come to school
8.30 to 10 am - work time
10 am to 10.30 - snack
10.30 to 11 am - outdoor play
11 to 11.30 - extra activities, story time, conversations, art or craft work

Figure 27

Classroom specific timetable showing daily routines

Pre-Rec A

Time	Monday	Tuesday	Wednesday	Thursday	Friday
7.45-8.15	Circle time	Circle time	Circle time	Music	Circle time
8.15-8.45	P.E	Numeracy	Library	Literacy	Art
8.45-9.15	P.E	Dance	Singing	Literacy	Art
9.15-9.45	B	R	E	A	K
9.45-10.15	Music	I.C.T	Outdoor 2 (Literacy)	Numeracy	Science
10.15-10.45	Numeracy	I.C.T	Outdoor 2 (Literacy)	Library	Science
10.45-11.15	Numeracy	Outdoor 1 (Literacy)	Story time	Outdoor 2 (Science)	Outdoor 1
11.15-11.45	Story time	Outdoor 1 (Literacy)	Free play	Outdoor 2 (Science)	Outdoor 1

CHAPTER 8: BRINGING IT ALL TOGETHER

As noted earlier in this thesis, significant research shows that physical activity habits afforded early in life have a positive trajectory into future health and developmental benefits. With children spending a significant amount of their time in early childhood settings, these environments are identified as critical contexts for promoting and supporting healthy active play behaviours. Yet, despite the known benefits, recent figures point to many young children not reaching recommended daily physical activity targets. Research points to concerns over young children not being as active as they should be according to guidelines on physical activity (PA) and sedentary behaviour (SB).

However, as identified in the literature review there is limited research in relation to factors impacting on active play (AP) practices and the support offered to facilitate active play behaviours, with limited research offering insights into the complexity and nuances associated with the facilitation of active play, particularly within the context of early childhood settings. Seven years after my embarkation on this study, this is still very much the case. This is of concern because having a limited contextual understanding of factors impacting on educators´ decision-making hinders the ability to target support strategically and to capacity build with early childhood educators in relation to their active play practices and active play environments. With inconsistent active play experiences across settings, children are missing out on the benefits associated with being physically active. Raising awareness of the importance of capturing the ecological factors that influenced educators' values, beliefs, understandings and practices related to active play, thus helps to gain deep and contextualised insights into early years educators' understandings, beliefs and practices related to physical activity and active play in early years settings, with Colombo, Sri Lanka chosen as the focus of the inquiry.

Research until this day has not yet explored the influence of context on educators´ decision-making related to active play. This is important in understanding the contextual nuances of those factors that impact on active play and that offer students appropriate

opportunities to be physically active. The focus of this study has therefore been on exploring the factors that impact on context, using Colombo as a specific contextual example.

The first section of Chapter 8 now focuses on early year's educators' insights gained from exploring the three research questions and makes reference to the data outlined in Chapters 5, 6 and 7 (reflecting Sandra, Kate and Aditiya and their settings). A focused inquiry approach was taken to explore early year educators' beliefs and understandings in relation to active play, the factors that impacted on their decision-making in supporting active play, and evidence of active play teaching practices and environments within their idiosyncratic early year contexts in Colombo, Sri Lanka. Chapter 8 further focuses on the synthesis and distillation of key findings and understandings related to this study. Rather than offering an overview of the findings addressed in previous chapters, this chapter focuses on sharing key holistic reflections from the data collected that helps to inform this study further.

The second section of Chapter 8 responds to an essential component of any research, that being the contributions that a study makes, particularly in relation to theoretical, methodological, and conceptual knowledge, as well as contributions to policy and practice. This includes, for example, a discussion of the current debate on the term 'active play', the modification of the Active Play Audit Tool and the emergence of research in the field of educators' understandings, beliefs and practices related to active play.

In the third section, suggestions for future research in the field of active play are shared. The intention is to clearly identify those elements within this study that act as a foundation on which to build and elaborate. Considerations for future research have been captured more specifically and placed in close alignment with those conceptual and methodological contributions and contributions to policy that have been uniquely identified in this study.

This chapter and the thesis conclude by recommending ways in which policy and practice can support active play in early years settings within Colombo, Sri Lanka,

and more broadly. The intention is to offer insights into the phenomenon of active play that can be transferred across settings and contexts. Attention is thus given to setting a precedent for future research in early years research in relation to active play.

An evaluation of experiences made by the biographically situated researcher thus reminds the reader of this study being positioned within the realm of a socially ecological perspective, and how this has inspired the researcher throughout his research journey. While this reinforces the unique facets and valuing of social ecology as a framework for gaining deep insights into the phenomenon of active play, this section mainly focuses on showcasing how this journey has impacted on the researcher's understandings, beliefs and values related to the phenomenon of active play, as well as what impact this PhD journey has had on the researcher as a person.

8.1. Early years educators' understandings, values and beliefs related to active play

The first section of Chapter 8 now focuses on early year's educators' understandings and beliefs about active play practices in their early years settings in Colombo, Sri Lanka. The term 'active play' is a relatively new term, emerging in the literature only recently (Pakarrinen et al., 2020). Throughout the research, active play is often used in conjunction with, or replaced by, other words such as 'physical activity' (Lu & Montague, 2016; Tonge et al., 2017) and 'physical education' (Fernandez-Rio et al., 2020; Varea & Gonzales-Calvo, 2021; Wibowo & Dyson, 2021). Research from this study thus reinforced that the term 'active play' is still quite elusive, diverse and open to interpretation, with some confusion with the terms 'play' (Fleer, 2015) or 'structured teacher-directed activity' (Duff et al., 2022; Lynch & Soukup, 2017), rather than the 'playful' active experiences used to describe and refer to "those planned or incidental, often intrinsically motivated, gross motor play-based learning experiences that usually include a cardiovascular, holistic health or broader developmental benefit" (Alexander, 2014; Johnson et al., 2019). Clearly distinguishing between the diverse understandings of 'active play' is important in gaining deeper insights into educators´ understandings and the active play practices that they facilitate within their early childhood settings.

Educator's understandings, values and beliefs about active play are contextual and nuanced by their lived experiences. Interestingly, each educator displayed their own understanding, interpretation and belief related to the importance of and valuing of active play. What defined every educator as unique were the detailed and contextualised nuances of their lived experiences that shaped their appreciation of active play. Educators´ nuanced lived experiences were those that were particular to the educator, and were characterised by subtle qualities, distinctions, or characteristics unique to the educator and proximal, or close to, their context. This confirmed the literature in relation to other disciplines and fields, where individuals´ backgrounds impact on their understandings, beliefs, interpretations, and practices. Working with a small group of participants helped to focus on educators´ understandings, interpretations and beliefs about active play that were diverse and nuanced by their lived experiences and within their early childhood settings. The following key findings emerged: understandings of the term 'active play' varied across settings and individuals, and educators´ beliefs related to and valuing of active play were contextualised, with nuanced interpretations of active play emerging as a result of this.

Childhood experiences and enjoyment in active play can contribute to the valuing of and beliefs about active play. For example, Sandra grew up in Sri Lanka and was a 'free ranged child' who had extensive opportunities to climb trees (see Figure 21 EMC Model of Ceylon Early Years setting). For Sandra, these experiences were valued as inspiring and shaping her valuing of active play. Such experiences equipped Sandra with a great foundation for growing a solid understanding of active play and an awareness for the importance of being physically active and of living an active lifestyle.

Another key factor that was also identified in the literature is that educators who are passionate about or have a background in a discipline, whether this be the arts, languages or in this case physical activity, often value making connections to their lived experiences (Dunekacke et al., 2015). For example, Kate linked her experiences as an avid swimmer and runner to an appreciation and valuing of active play beyond her own health

and well-being and into her educational setting and educational belief system/educational philosophy. She saw her upbringing as the foundation that shaped her understanding of and valuing for active play. Coupled with her positionality, Kate's lived experiences contributed to her proactive decision-making related to promoting active opportunities for children at her setting.

Similarly, Aditiya's valuing of active play was defined by her underlying assumptions, beliefs, and values about the importance of active play for children's health and wellbeing (captured within the micro-level of the EMC model). Interestingly, Aditiya's belief system was closely aligned with the pedagogical teaching and learning approach of the Montessori Method. In her case, Aditiya realised that, despite her valuing of and support and effort for facilitating active play, the levels of confidence in physical movement among children varied, leading only to mixed success being achieved in incorporating active play at her setting.

8.1.1. Active play practices and environments

This section of chapter 8 focuses on investigating active play practices in Colombo early years environments and informs Research Question 2. This study then confirmed existing research about outdoor environments being most conducive for active play experiences. Active play outdoor environments for this study were defined as those spaces that provided a safe and active play environment for the children, while offering an array of rich opportunities to develop large muscle gross motor skills, muscle control and balance. Active play spaces that were found to be conducive included the open grassed fields. Within the active play spaces, key practices that supported active play were child-initiated practices, where the child was independent in taking action and making decisions, as well as those where teacher guidance and scaffolding were offered. Active play resources available, such as monkey bars, climbing walls and ladders, were found to offer additional support in facilitating children's active play experiences.

Active play experiences observed within the indoor environment of early years settings confirmed that the indoor environment commonly offers limited space to be physically active. Subtle differences between settings in relation to the facilitation of

active play practices and environments have been attributed to the idiosyncratic nature of each context, allowing for some indoor active opportunities, such as in separate rooms padded with mats. These subtle differences within the indoor environment and opportunities created are now explored in more depth.

8.1.1.1. The indoor environment supporting active play. Throughout the three settings, the indoor environment was understood to be an important space where children spent a significant amount of their time. The educators therefore made an effort to use those spaces available in the indoor environment to promote active play. Educators in each setting made an effort to promote active play in the indoor environment by using, modifying and rearranging furniture to create spaces that would be conducive to active play. Despite efforts made to support active play in the indoor environment, the opportunities created remained limited and were highly context-specific, meaning that children's opportunities for active play varied significantly across settings. Opportunities for children to be physically active in the indoor environment commonly remained in the form of low to moderate physical activity.

8.1.1.2. The outdoor environment facilitating active play. The main space where active play was evidenced was the outdoor environment of the early years settings. These spaces were understood to be more suitable for encouraging and supporting children's active play. Opportunities for gross motor physical activity, such as pushing, lifting and carrying objects, digging in the sand or playing chasing games, were commonly supported in the outdoor environment of the early years settings (Hyndman et al., 2016). The outdoor spaces conducive to active play varied across educational contexts, which meant that children were exposed to different opportunities for active play.

Interestingly, this study found that those educators who were in a leadership position could direct, instruct and approve modifications to the physical environment more efficiently. In those settings where the classroom teacher was not in the fortunate position of making physical changes to the outdoor environment, modifications were limited to setting up the outdoor space with moveable physical activity equipment, thereby making active play resources available to the children, and to ensuring that the

children also had an open space to run around freely. This involved strategically placing resources throughout the outdoor environment, ensuring that the children had space to engage safely in active play. The constellation and interplay at the administrative and classroom levels represented two contextualised features that were unique to some settings, and that significantly contributed to offering several support mechanisms across the educational setting to foster active play outdoors.

8.1.1.3. Factors impacting on educators' decision-making about support for active play. There was a significant number of factors located at both the micro and the macro levels within the early years settings that impacted on educators' decision-making about active play and active play environments. This section of chapter 8 now explores factors impacting on educator's decision-making related to supporting active play, and informs Research Question 3, which will now be addressed.

The factors most proximal to the phenomenon were found to be most impactful on the phenomenon. The factors most proximal were those located within the immediate environment of the setting, with these directly impacting on the phenomenon of active play. Factors immediately impacting on educators' decision-making identified were educators' concerns and priority for children's health and safety in the setting, the availability of space that afforded active play, and the availability of and accessibility to active play resources.

More distal factors located at the macro level that potentially impacted on educators' decision-making related to the facilitation of active play were, for example, the academisation of the education system. Of importance to note was that, similarly to those factors located at the micro level, those factors found at the macro level were defined by the contextualised nuances of these factors. Significantly, factors were found to act both as enablers affording and as barriers impacting negatively on active play.

The findings that emerged from this study supported the already existing literature in the field of physical activity and active play that highlighted the considerable diversity and variability in determinants and contextual elements that collided within the educational and early years settings, impacting on, affording, or limiting children's

opportunities to be physically active, or to engage in active play (Bento & Dias, 2017; Bjørgen, 2016; Copeland et al., 2012, Lundy & Trawick- Smith, 2020). This study thus extended current research by addressing the locatedness of the setting and the complexity associated with facilitating physically active play, while taking into consideration the interconnected elements and processes colliding within settings, such as early years educators' decision-making and considerations, children's health and well-being, and contextual factors situated at a more distal level of influence. Interestingly, while factors were closely linked to the unique nature of the setting, there were some similarities across the early years settings.

8.1.1.3.1. Factors impacting at the micro-level. To understand better those factors that influence at the micro-environment of each early years setting, it is important to acknowledge the context in which individual educators are embedded, and that evidence the understanding of this context, illustrating the various micro- and macrosystems that impacted on the Kate, Sandra and Aditiya. As indicated through this study, the lived experiences of active play that occurred over time (Mishra & Lawlor, 2009), educators' valuing of children's health and safety and well-being, and features of the physical environment, had a significant influence on understandings, beliefs and attitudes related to physical activity and active play.

8.1.1.3.2. Educator concerns for children's health and safety. In each case, the educators' concerns for children's health and safety were proven to be an important factor impacting on the facilitation of active play. This was attributed to the educators' ingrained understanding that ensuring children's health and safety was one of their priorities, and that the concern of children getting injured, outweighed the importance of providing for opportunities to be physically active. Educators' concerns and raised awareness over issues about safety, potential risk, and 'appropriate' supervision were found to be essential in all settings.

Over time and with more experience teaching children in the early years, Kate became more cautious and pre-emptive when offering or limiting opportunities for active play. She did value physical activity for children as much as possible and as often as

possible, but within the confines of their environment. This was associated with Kate being worried that children would get injured, in particular within the indoor environment that had a cement and tiles covered floor. To prevent injuries, Kate made the decision not to allow children to engage in any form of active play inside the building. This meant that, on those days when it was too hot, children engaged in lighter versions of active play outside, with Kate setting regular breaks to ensure that the children remained hydrated. In an attempt to promote physical activity, Kate introduced morning routines that commonly consisted of a natural balance between physical activity and quiet play, with the idea being that children would not get overtaxed, overtired and dehydrated. The other educators at Mountain Early Years showed a similar attitude of concern towards children's health and wellbeing, closely monitoring children's actions, and even going so far as to scaffold and offer direct guidance to children or redirecting them to sedentary and fine motor activities both outdoors and/or inside. It was observed that, during times of active outdoor play, Kate and the other educators, as instructed by Kate, did seem to hover over children, with the genuine intent to ensure children's health and safety. In most cases, owing to the value placed on active play by Kate, there were efforts to overcome the determinant of perceived risk. Kate's more cautious and proactive approach to limiting the risk of children getting injured could be tracked to various social ecological factors. During Kate's childhood, physical activity was associated with playing outside, without a competitive approach to sport, and in her role as the educator Kate wanted parents to be able to trust her with their children.

Sandra valued children's safety as being not only her professional duty, but also her personal duty. Measures taken to support active play were always reflected upon with children's safety in mind. Despite her attempts to introduce physical activity into the classroom, Sandra was quick to understand that the indoor environment was not suited for active play, and her concern over children's safety led her to limit children's learning to sedentary experiences. Outside, active play was encouraged, acknowledging the potential of children getting hurt, whilst encouraging children to learn from their own mistakes and from minor accidents. Sandra's approach to supporting active play was underpinned by the value of the children being risk takers. At Ceylon Early Years, the

origins of Sandra's understandings of children's health and safety tracked back to social and ecological factors, unique to her upbringing and to her exposure to physical activity and active play.

At Montessori Early Years, Aditiya came with vast physical activity experiences gained during her athletic career as a swimmer. The value placed on these and other physical activity experiences, influenced the way that Aditiya accommodated for children's opportunities for physical activity and active play. Interestingly, Aditiya was observed to express fewer concerns related to children's health and well-being. This did not mean, though, that she was not at least as genuinely interested in children's safety as the other educators.

Aditiya approached children's safety by ensuring that the environment and active play resources were fully functioning. This was Aditiya's preferred approach, rather than physically hovering over children or having too many adults to support with supervision. Safety nets were attached to prevent children from falling off the trampoline, to promote further children's passion and excitement to use the trampoline and to engage in active play. With the repair of the trampoline though, Aditiya attributed a higher value to children's safety to minimise the risk of children getting injured (see Figure 24 EMC model of Montessori Early Years setting). The valuing of children's health and wellbeing also translated into her discouraging children to running inside, in particular considering the limited space and the constant movement inside the building and children working on the floor. Despite the limited space inside and outside to be physically active Aditiya accommodated learning engagements inside and outside, offering children the opportunity to rotate around the school facility, with adults supervising children across the setting and always being vigilant.

Aditiya's concerns over children's safety were present, but did not dictate the operation of Montessori Early Years. Aditiya had a relaxed manner in which she conducted the early childhood centre, and in how she supported children's play. Rather than letting these concerns inhibit children's opportunities to play, Aditiya was prepared to go to great lengths to overcome obstacles, such as fixing the trampoline. This and other approaches to facilitating active play at her setting could be tracked back to a number of

factors including: the importance that Aditiya placed on their children's learning through physical activity and active play; her own childhood active play experiences; and other influences, one of which was being the mother of two children and understanding the implications of this for facilitating opportunities for active play.

The different factors impacting on active play and approaches to overcoming these could be sourced back to a number of social ecological factors, both individual and sociocultural. Ecological factors most proximal to the educators, such as the increased concern about children's health and safety when engaged in active play, can be attributed to educators' childhood backgrounds and lived experiences. With increasing exposure to children in their current positions, the educators understood the importance of their role in ensuring children's health and well-being while valuing active play opportunities for children.

8.1.1.3.3. The physical environment Features of the physical environment were identified as essential in shaping the idiosyncratic nature of each context. At the same time those unique physical features were understood to be a factor impacting on the facilitation of and support for active play. Viewing the physical environment as part of a conglomerate of factors impacting on one another helped to understand that the physical composition of the environment and the spaces provided at each setting either supported or limited the facilitation of active play. Despite efforts made to support active play in the indoor environment, the opportunities created remained limited and were highly context-specific, meaning that children's opportunities for active play varied significantly across settings. This was consistent with ecological models of health that reinforce the significant impact that the physical environment has on opportunities for facilitate opportunities of active play (Boulton et al., 2018; Bronfenbrenner & Morris, 2006).

In their own ways, each educator was able to overcome determinants within the physical environment to some extent, often turning inhibitors into enablers, rather than barriers to active play opportunities. However, some circumstances were shown to go beyond the educator's sphere of influence. Some types of barriers proved to be too much

of a challenge, despite the educator being motivated to engage in active play or having had positive active play experiences in their childhood.

At Ceylon Early Years for example, this barrier was evidenced within the physical environment. It was evident that the set-up of the classrooms was geared towards more sedentary learning engagements. According to Sandra, the spaces available were intended for sedentary play, such as tabletop learning experiences focusing on manipulative play or formal learning experiences. Limited active play spaces inside meant that children's active play opportunities primarily occurred in the outdoor environment. In an attempt to overcome the challenge of the limited indoor space, Sandra rearranged the classroom furniture to the back of the room to create an open space for children to engage in physical activity, such as dance practices, but opportunities for active play within the indoor environment remained limited. Other examples, as shared by Aditiya evolved around the complexity of maintaining active play equipment. This included feasible and affordable repairs, such as repainting the swing and resurfacing the slide, as well as the more complicated maintenance of the trampoline, a challenge that required getting the correct repair parts needed for the trampoline, and that went beyond Aditiya's scope as educator.

It is important to appreciate that factors outside of the micro-environment can impact on educators and the facilitation of active play at the setting. The context of the meso-system illustrates the various elements that were located outside the immediate environment of the early childhood setting, but that impacted on Kate, Sandra and Aditiya's decision-making and the facilitation of active play. Factors located at the meso-level included the cultural and parental beliefs and were understood to impact on children's opportunities for active play.

8.1.1.4. Cultural and parental beliefs. Increasing educational demands by the parents to have their children engage in more sedentary and formal learning impacts on educators' decision-making regarding the facilitation of active play. This was evidenced, in particular, by those parents whose children were transitioning from kindergarten to Grade 1. Interestingly, these educational expectations by the parents had

been shaped over time and as part of an increased focus on academic learning at the macro-level of the Sri Lankan education system and were found to impact at the meso-level. Parents' heightened concern about and demand for academic learning in early childhood transmitted onto educator's being pressured into offering children increasing opportunities to be sedentary, therefore decreasing the time spent on being physically active. These concerns then presented themselves as factors impacting directly on the immediate environment of the setting, with parents' expectations leading to a constant battle of providing a balanced approach to teaching, with opportunities for sedentary (more formal teaching practices) learning and active play experiences.

Parents' concerns about safety and children's health directly impacted on educators' decision-making. This was found to impact further on the facilitation of active play practices at the early years settings. Educators needed to reinforce consistently the preventive measures taken to reassure parents about their children's physical integrity (O'Connor & Brown, 2013). In addition, educators were required to inform parents about the value of children being physically active. This study revealed that, despite these efforts being made, educators were still faced with the dilemma of modifying and adapting opportunities for active play to meet parents' requirements, a process that impacted on educators' flexibility and spontaneity in providing children with opportunities to be physically active.

Kate identified the educational expectation of preparing children for Grade 1 as the most limiting factor that she faced at Mountain Early Years, as it impacted significantly on the time available for the children to be physically active. However, Kate's valuing of forming a strong educator/parent relationship, helped to contain the impact of academisation at Mountain Early Years to some extent. Kate proactively approached parents and invited them into her office to openly discuss questions and concerns openly about their children engaging in play. Building transparency over time helped Kate to establish a clear understanding of the importance of active play in the early years. This helped to build trust and a deeper understanding and valuing of active play among the parent community.

8.1.1.5. Academisation of early childhood education. Pressure for more

academic rigour and higher academic demands expressed by parents at the meso-level were found to impact on educators' decision-making and the facilitation of active play. Parents' concerns originated from and aligned with the expectations set at a macro-level by the Sri Lankan Ministry of Education. Emphasis was placed on more academic subjects, such as mathematics and literacy, with physical education programs only receiving only limited attention from the Sri Lankan education system. Decisions made at the macro-level thus impacted on early childhood educators' practices of and support for active play at the micro-level of the classroom environment. The interconnectedness of factors impacting on practices were found across all settings.

Within Kate's early years setting, an internal, play-oriented, play-based curriculum was implemented. The syllabus was created by Kate, and it contained a set of guidelines and recommendations about what to teach. This was to be followed and employed by all early childhood educators within the service. Despite having created and established a syllabus specific for Mountain Early Years, Kate perceived the factor of curricular requirements set forth by the Ministry of Education as impacting on the affordances of active play practices at her setting. She explained that the requirement for a more rigorous approach to academic learning impacted on teaching and learning practices, in particular, on the amount of time and the number opportunities for children to be physically active at Mountain Early Years.

At Sandra's setting, an increase in expectations for more formal learning and moving towards "a structured academic initiative' stemmed from within the international educational institution. It was interesting to notice, though, that those expectations set forth by the school were in alignment with recommendations set by the Ministry of Education. At Mountain Early Years the school administration context-specific request was that children complete one to two worksheets a day, totalling to five to six worksheets a week, which would then be sent home to parents on Fridays. The direct influence on Sandra was the requirement to plan for explicitly learning engagements that were in line with the school's curriculum practices.

8.1.1.6. Significance and implications.

Case studies are about refining and building theory, thereby, offering significant contributions to research (Stake, 2005). This section of Chapter 8 outlines how this study has contributed to, and refined aspects of the conceptual theory of social ecology. The focus on the Educator Micro Context (EMC) model. Attention is be given to the nuances of the model, immersed into the educator/child dyad and the multifaceted interconnectedness between elements of influence. The following section of chapter 8 will now focus on the contributions made through and will include conceptual, theoretical, and methodological contributions.

8.1.1.7. Conceptual contribution.

8.1.1.7.1. The development of the EMC model.

The social ecological model developed for this research, the Educator Micro Context (EMC) model, was specifically adapted for this study to extend upon the understanding of the theoretical features of current ecological models, while also building upon the work of Bronfenbrenner (1979) and Stokols (1992, 1996). The EMC model assists in making sense of the significant sources of environmental factors that influence educator understandings, values and practices relate to supporting active play within the early years setting. The EMC model was to use it as a data gathering tool to gain a deeper understanding of the multiple elements impacting on educators' understandings, beliefs and practices related to physical activity and active play in early years settings in Colombo, Sri Lanka. The model was robust and supported the derection of those elements impacting on educators' practices in facilitating active play in the early years setting. The second methodological purpose of using the EMC model was to support a deeper understanding of the interconnectedness of those factors, and to demonstrate the (in)direct impact that they had on the educators and the children attending the educational settings, tracking factors impacting on the educator both within the immediate environment and indirectly outside the micro-environment of the early childhood setting.

Implications: Adopting the EMC model allows the researcher to explore and understand better a number of ecological factors from across systems of influence. The EMC model is a highly effective tool that contributes to a better understanding

related to the influence of the environment and the context within which the individual is situated within, in this case being the lives of early childhood educators and the early years setting they are located within. The EMC model is a robust construct that can be applied to a range of similar contexts within the field of education, as well as other settings where individuals interact with children or other adults in the health sector. The strength of the EMC model is that it offers an efficient mechanism for facilitating and comprehensively understanding the individual, the idiosyncratic nature of the context and the importance of active play.

8.1.1.8. The conceptualisation of the micro-environment. The concept of positioning the micro-environment in the centre of an ecological model is not new. What is new, however, since the early work of Bronfenbrenner (Bronfenbrenner, 1995), is the creation of this space within a social ecological model, with the focus on early years settings and on the unique features of the immediate environment. The inclusion of the micro-environment in the EMC model makes it possible to gain a heightened appreciation of the idiosyncratic nature of the educational setting, including its physical, social and environmental characteristics. In addition to being an essential component of the EMC model, the inclusion of the micro-environment helps to understand better the contextual nuances that impact on and are embedded in the lives and lived experiences of individuals, such as the early years educators, and contribute to their understanding and meaning-making of a phenomenon.

Implications: The micro-environment of this study includes the educator and the children as the central component. This was of value as the early childhood setting is understood to be a significant location where physical activity and active play behaviours and values are nurtured. Other researchers may find value in incorporating combinations of individuals or dyads of different natures within their models.

The inclusion of the micro-environment within social ecological research is important, as it enables researchers in a range of fields to focus on this contextually nuanced environment. At the same time adopting this approach helps to appreciate the value of acknowledging the complexity and influence of other systems of influence, such

as the mesosystem or the chronosystem. Just as importantly, the inclusion of the micro-environment within a social ecological framework, was understood to help to make sense of the data in terms of understanding lived experiences, beliefs, values and practices of individuals and the various influences unique to an individual.

8.1.1.9. The inclusion of the educator/child dyad. The inclusion of the educator/child dyad focused on educators and young children 3-6 years of age within the micro-environment of the early years setting. Another conceptual contribution that was unique, was positioning the child and the educator at the micro level, while the educator is situated at the centre of the conceptual framework, planning, structuring and guiding learning experiences, the children brought with them a unique set of characteristics, preferences, and attitudes towards healthy physical activity behaviours. The conceptual contribution of the educator/child dyad accounted for influences on young children's opportunities for active play within the micro-environment of the early childhood setting. This constellation acknowledges the influence by the teachers, the educational setting, and the parents, whilst also acknowledging the impact that the children also bring with them with a uniqe set of characteristics, preferences on the teacher/child dyad, the facilitation of active play practices and the active play environments. For example, a child's positive attitude towards physical activity helped to facilitate active play, while on the other hand a child's preference for sedentary learning can lead to lower levels of physical activity helps and active play in the setting.

Implications: The inclusion of the educator/child dyad within the micro-environment of the early childhood setting is valued as offering other researchers who are planning to investigate active play practices and active play environments with young children the opportunity to understand better how various determinants impact on educators.

8.1.1.10. Multifaceted interconnectedness between elements of influence. The range of data collected facilitated an understanding that the multiple factors of influence that existed may have impacted not only in isolation, but also in conjunction with factors situated across other levels of influence. A conceptual insight is that sometimes these factors are bi-directional in nature, which means that they impact

on each other. Findings from this study highlight the pervasiveness of the educators' own backgrounds, as well as their experience in physical activity, being factors that significantly impacted on their values and, in particular, on their confidence levels for supporting children's active play experiences. While these influences are most proximal to the educator and sits within the micro-environment of the educational setting, it is important to recognise the multifaceted interconnectedness between the elements of influence. Capturing these elements within the EMC model helps to confirm that factors that sit both inside and outside the micro-environment of the early years setting can interconnect with other determinants that either facilitate or limit active play in the early years setting. A key contribution of this study was highlighting the influence of these various environments that can converge on educators simultaneously or in conjunction with other factors, all influencing active play behaviours and practices. It is important to allow data to be analysed holistically, considering how contextualised factors may collide and impact on the way that active play is being facilitated.

Implications: Acknowledging the interconnectedness of influences impacting on the phenomenon and exploring those factors impacting on the facilitation of active play, provides a deeper insight into essential intersections for intervention strategies both in the field of physical activity and active play, as well as in other fields of health and well-being.

8.1.1.10.1. Methodological contributions This study makes a number of significant methodological contributions. Contributions made include: the application of a strengths-based approach while researching with educators, and collecting data, with a focus on assessing the presence and condition of playground features using the Active Play Audit tool. Methodological contributions are now be explored in more depth.

8.1.1.10.2. A strengths-based approach A strengths-based approach was used to demonstrate the importance of a reciprocal exchange of thoughts, ideas and understandings between the educators and the researcher that shaped the axiological perspective of this study. As a researcher in context, adopting a strengths-based perspective meant being open to the possibilities of learning from and with the early years

educators. This led me as researcher to enter each setting in a humble manner, being aware and ready to learn from the people situated within the immediate environment (Brown, 2012; Warburton & Bredin, 2019).

Implications: Following a strengths-based approach contributed to structuring the interview process by moving away from an atmosphere of interrogation and a rather impersonal method to collecting data. This approach heightenes the valuing for the participant contributions and their backgrounds, their lived experiences, values and beliefs. Acknowledging the voice of all the parties involved in this study, contributes to an accumulation of in-depth information related to educators' understandings, beliefs and practices related to active play. While this approach has been used in the family environment to explore parental support for the active play of young children in a home environment (Brown, 2012), this study contributed methodologically by using the approach in the field of early childhood settings, exploring educators' understandings, beliefs and values, and active play practices offered to young children 3-6 years of age.

8.1.1.10.3. The Active Play Audit Tool. The Active Play Audit Tool used for this study was adopted from the Australian Capital Territory (ACT) Active Play Audit Tool and adapted to reflect upon the effectiveness of the learning environments in supporting children's active play. Active play audit tools have been used to assess the presence and condition of playground features using qualitative measures (Gustat et al., 2019), and to examine whether secondary school playground environments are conducive to active play opportunities within the context of Australian secondary schools (Hyndman & Chancellor, 2016). In this study the tool helped to gain rich and contextualised data, that contributed to a deeper understanding of those physical features and spaces within early years settings in Colombo, Sri Lanka, that were identified as contributing to active play practices. This tool then went beyond being an environmental scan and helped to reflect on insights gained and helped to plan for further interview questions to be asked during the semi-structured interview.

The tool is helpful in identifying those gaps in the promotion of children's active play in the early years settings and in raising educators' awareness of those spaces

that had the potential to facilitate active play within their context. From a social-ecological perspective, the ACT is a useful tool that allowes for a deeper investigation into the temporal and social/personal components of the early years environment. This helps to raise awareness of and give detailed insights into the actual amount of time available for active play at each setting. The tool also helps to identify those interpersonal relationships between people in the immediate environment and beyond (such as educators, children, and parents), that have the potential to support and/or promote active play practices and environments. In combination with other data gathering tools, the ACT then helps to strengthen the authenticity of the data and the trustworthiness of this study.

Implications: The ACT contributes methodologically to research in the following ways. First, the development of the ACT draws on existing frameworks and environmental scans that have focused on supporting the investigation and gathering of contextual data (Pring, 2000). The collection of such information is achieved by using data collection tools that comprehensively investigate a case or phenomenon within the immediate environment of a setting and at a specific time. This approach allows the researcher to gather participant insights related to the phenomenon being studied. Second, the contextual audit template can be a useful tool for helping to draw attention to contextual data that can in turn better support the interpretation and reconstruction of participants' understandings of the phenomenon (Denzin, 2017). Finally, in combination with a range of other quality data gathering methods, the ACT helps to legitimate and strengthen the authenticity of the interpretation of data and in turn helps to build the trustworthiness of a study.

8.1.1.11. Contribution and recommendation to the field. The current study identified and comprehensively explored the contextual factors impacting on educator's understandings, beliefs and values related to active play and to the facilitation of active play at the early years setting. This information has implications for future research, considering the diversity of early years environments, located in diverse locations or neighbourhoods that are characterised by a social milieu defined by a range of enablers and barriers that impact on the educator and on the facilitation of active play.

This section of the chapter now directs attention to a number of recommendations for ways in which future work could build upon the research conducted to date to support educators more effectively in using active play environments to facilitate active play and to create opportunities for children within early years settings to be physically active.

8.1.1.11.1. Building educators' understanding of the term 'active play' In Chapter 2, literature was reviewed that defined the term 'active play' as an activity that shares components of structured play that extend to unstructured physical activity, which has been observed often to occur outdoors, and in a child's free time (Johnson et al., 2019; Veitch, 2007). A number of research studies have added to the understanding of active play by referring to it as a form of moderate to vigorous physical activity (e.g., working memory, problem solving, etc.) (Diamond, 2012; Tomporowski et al., 2008). Some movement patterns, such as jumping, running, and catching, have been determined to fall under active play (Townsend et al., 2015). However, no clear definition of the term 'active play' has been established in research and in the literature.

This study contributes to the discussion of the term of 'active play' by adopting elements of definitions found in the literature referring to physical activity and active play across educational settings (Bruijns et al., 2020; Johnson et al., 2019), and develops further the definition of active play by using a strengths-based approach to elaborate and heighten the focus on clearly presenting an interpretation of the term 'active play' that is considered to be transferable to other educational contexts. The definition developed for this study states that 'active play' is understood as "those planned or incidental, often intrinsically motivated, gross motor play-based learning experiences that usually include a cardiovascular, holistic health or broader developmental benefit".

The terms 'physical activity' and 'active play" have been commonly used interchangeably throughout research. To the researcher's knowledge, this is the first time that the term 'active play' has been clearly defined in terms of identifying the key features that make up active play practices. While attempts made to define active play have used a negative approach, sharing activities that do not fall under active play, the approach taken in this study offered a positive understanding of what falls under active play.

Solving the debate between these terms is significant in providing a knowledge foundation for early childhood educators that helps to heighten their awareness and understandings of what constitutes developmentally appropriate active play practices for young children. A growing confidence in planning and providing active play is associated with an increased opportunity for young children to develop active play behaviours.

The findings of this study have provided a foundation of understanding active play. More specifically, the findings revealed educators' understandings, beliefs, and practices regarding active play. There are a number of opportunities for further investigation. For example, further qualitative investigations into educators' understandings and beliefs related to active play and the facilitation of active play in early years settings across a number of early years settings will help to raise an awareness of the importance of contextualised nuances that live within and are embedded in an environment, and that shape educators' decision- making and give meaning to their thoughts and ideas.

Further qualitative research can tease out potential barriers that still exist in the process of facilitating active play. While this study focused mainly on the micro-environment of each setting, further research could explore in more depth factors located in the meso and macro environment. Research into parent's understandings, beliefs and values concerning active play in early childhood education could contribute to a better understanding of the role that parents attribute to active play in early childhood education. This would be important in planning the potential next steps in educating parents regarding the importance of active play for children's health and well-being.

Other research could focus onto Sri Lankan cultural values and beliefs related to promoting active play in early childhood. This could offer further insights into potential misconceptions of the phenomenon studied. Understanding those elements holds the potential of revealing insightful information that can help to explore different ways to support educators in promoting active play within their early years settings.

Additionally, the multifaceted nature of the interconnectedness between elements of influence, suggests that further research in the field of factors impacting on educator's

decision making and the facilitation of active play, can provide for deeper insights into the idiosyncratic nature of early years settings. Conducting a number of case studies would then help to deepen the understanding of those factors at various levels, such as the micro level, the meso level and the macro level. It is recommended that these influences then be analysed in relation to educators' unique characteristics, and the environmental, social and temporal features of the educational setting. It is hoped that more cases also around the world, and over an extended period of time, will help to deepen our understanding of approaches to overcome those barriers, and to ensure that each child benefits from engaging in active play practices in early years settings.

Finally, the research conducted in the field of physical activity and active play has found that opportunities for ongoing professional development in the field of work impact on teachers' practices (Hamre et al., 2017). Little attention has been given to effective approaches to designing and delivering the professional development central to supporting early childhood education. This gap requires research investigating the field of professional development opportunities in the field of active play in early childhood and presents an opportunity to explore further the support mechanisms related to active play practices in early childhood education.

8.2. Implicit conclusions drawn from this study (Implications)

In this section, I have detailed a number of implicit conclusions drawn from this study. These suggestions have derived from the data analysis conducted and are intended as recommendations that can be used in similar contexts.

8.2.1. Implications for methodological development

One of the main suggestions for methodological development relates to the approach of using social ecology as a data analysis tool. It is suggested that adopting the EMC model and adapting it to suit as a data analysis tool across contexts within the field of physical activity and active play, and other fields of research, will help to illustrate the pervasiveness of those factors impacting on the contextualised phenomenon under

study. The EMC model is thus useful in helping to detect the contextualised and nuanced features of the environment, as well as locating those influences at a broader level, to create a bigger picture of those layers of influences found at the meso- and macro levels.

8.2.2. Implications for conceptual understanding

Providing a richer and stronger understanding of the theoretical concept of active play from within the context of early years settings thus offers a theoretical contribution to this discussion. Using this interpretation of active play to function as foundation for active play interventions developed at a policy level, that can then form the educational program that guides the implementation of active play into early years teaching. It can contribute to revamping and restructuring educational courses targeted at training future educators. Modifications to and adaptations of the course content can be made, so that a heightened focus is put on the importance of children being physically active, as well as on exploring multiple active play practices, and also on investigating strategies that help to promote active play in early- years settings.

8.2.3. Implications for policy

Developing and introducing an early childhood curriculum will help to alleviate the variance of practices across educational settings. Having clear expectations related to active play in the early years will help to implement active play practices more fluently across settings. Building upon work conducted in Sri Lanka, and captured in the World Bank Report from 2018, will help to inform, guide and update evidence-based guidelines for children's active play within the early years.

To support the implementation of the expectations related to active play practices offered in the field of preschool education, the efforts made should better address the challenges faced in implementing active play in early years settings. It is important that early childhood educators have access to the educational and training experiences needed to offer active play effectively in the classroom. This is consistent with research showing that children would benefit if regulatory government bodies (such as the Ministry of Education in Colombo, Sri Lanka) offered and implemented opportunities for

professional development and policies to support early childhood educators in facilitating their vital role in fostering children's physical activity (Lu & Montague, 2016).

There is no early years curriculum in place that recognises and values the role of physical activity and active play in early years education within the context of early years settings in Colombo, Sri Lanka (Bhatta et al., 2014). While some of the curricula used by the educational settings identified physical activity as a learning focus of the educational program, the topic of being physically active did not receive the attention that it deserved. Not having a curriculum in place meant that decisions made regarding the importance and implementation of active play in early years settings were left to the discretion of the educators. Whether and to what extent active play occurred within the early years settings could be influenced by individual educators. This lack of consistency and clarity related to active play expectations in early years teaching leaves a potential gap in offering a consistent foundation to support children's physical activity behaviours across settings. Contributions to policy are thus understood to impact significantly on active play practices across educational settings. Developing early childhood curricula that explicitly identify the importance of active play for children's health and well-being, and that elaborate approaches and clear strategies to incorporate active play practices in teaching would help to facilitate children's opportunities for active play and to develop healthy active play behaviours that will track into adulthood.

8.2.4. Implications for practice

To develop and implement active play interventions successfully, significant consideration needs to be given to different ways of involving significant stakeholders that work closely with the educators. Building a strong learning community requires collaboration between the educators and the children's parents. Within these settings, the educators themselves bring with them unique personal characteristics and lived active play experiences that guide their thinking about and valuing of active play.

Parents also contribute significantly to building an efficient learning environment. This subsection now focuses on a number of recommendations regarding ways to support educators in facilitating practices and environments that help to engage children in active play in their early years settings.

It is recommended that the focal point of such interventions should then be the context of the early years setting. Attention should be given to the idiosyncratic nature of each setting, with a clear focus on the features unique to that environment. An in-depth screening of the setting would help identify elements of the physical, social, and temporal environment supportive of active play. This would include for example the teaching team, the teacher/child ratio, educators' educational beliefs and the teaching philosophy followed by the educational setting (an investigation into the curriculum applied), or the indoor and outdoor spaces and active play resources available.

It is important that the support strategies developed then align with the contextualised nuances of each setting, in order to best facilitate active play at each setting. From a social ecological perspective, it is important that this is a learning process where the educators not work in isolation, but rather in collaboration with stakeholders, such as the parents. A first step towards building a learning community should involve educating parents about the phenomenon of active play. It is suggested that this includes sharing educational expectations, curricular programs, and ways to support the child at home. In this process, it is important that both parties share their knowledge alike - educators share their expertise in the field of education, while parents contribute with child-specific input, such as the children's behaviour, their likes and dislikes, and their preferences, as well as their future educational expectations, hopes and wishes, when it comes to transitioning from early years to more formal schooling in Grade 1.

8.3. The biographically situated researcher

As an early childhood teacher, my understanding of what it means to be an educator, and the valuing of those who have taken the opportunity to contribute to

dedicate their lives to educate the next generation, have shifted significantly. At the beginning of my PhD journey, I perceived the world of teaching through a rather naïve and almost immature lens. With only a few years of full-time teaching experience, my bag was merely empty, with only limited lived experiences in teaching early childhood. Only throughout this PhD was I able to experience a greater understanding that my teaching experiences were only a reflection of a much larger puzzle. Gaining a holistic understanding of what it meant to teach involved painting a better picture of the complexity involved in creating environments that not only nurture the needs of the teacher and the children, but also contribute to answering to the demands of the entire learning community, which went beyond the classroom setting and involved others such as parents and stakeholders.

This study helped me to realise and to understand better the importance of the context in which we are situated in as educators and how this impacts on our practices. As I came from teaching at international school environments, I had benefitted from all the commodities attached to working at a private school. Those privileged educational settings offered well-resourced learning environments, ranging from well-maintained and spacious learning environments to having an abundance of resources needed to support children's learning. I was in the fortunate position of being surrounded and working alongside highly qualified and internationally minded teaching staff. As I emerged into my data collection phase and conducted my on-site visits and interviews, I came to the realisation that those standards to which I had been accustomed were not the norm across teaching environments. While I was in a fortunate position at my educational setting, many other educators and educational settings did not benefit from access to these luxury goods, such as highly qualified staff, financial support by stakeholders, well-maintained and up to date learning environments in which to teach or being well-resourced.

With this study came a deeper understanding of seeing the world of education from a broader lens, one that sees all the opportunities that environments can offer, while being aware that only a contextualised perspective can help to understand the complexity

involved in teaching. I see that being a practising educator and a researcher has helped me to forge this thesis into something that can contribute to a heightened awareness and understanding of facilitating active play in the early years. By working together with educators across their settings, I have come to appreciate teaching as a piece of art, that is shaped by the multiple elements located across levels of influences, with the educator and the child positioned at the immediate, the centre point of the setting, while valuing other factors situated across levels of influences that have the power to impact on educators' understandings, beliefs, values, and practices. I am glad to say that this heightened awareness has travelled and will continue to travel with me when entering new learning environments, thriving to incorporate those newly gained insights into my future teaching practices to create a harmony of learning for all stakeholders involved.

As a researcher, I believe that I have communicated my newly gained insights regarding the phenomenon of active play. I am aware that during my journey research conducted in this field I have continued to grow. I am proud to be able to contribute to this research and to share my knowledge and understanding in this unique field of active play. I look forward to further research being conducted that builds upon my findings and that develops further the theoretical knowledge foundation of physical activity and active play in early childhood education.

8.4. Summary of the chapter

This chapter provided a conglomerate of key information gained from analysing the data gathered from the three case studies at Mountain Early Years, Ceylon Early Years and Montessori Early Years. Methodological and conceptual contributions, as well as contributions to research and policy, have been addressed in detail. Recommendations for further research have been shared, with the premise in mind that an authentic representation of information can be achieved only when information collected and analysed is put in the context of the environment.

This includes the idiosyncratic nature of the physical/social/temporal environment

informing and shaping the meaning-making process of the information collected. While this study offered a snapshot of active play, future research should go beyond the boundaries set for this study, these being offering only a small number of cases within a small geographical area within Colombo, Sri Lanka. The data collected in this study should offer a stimulus for further research that explores a wider number of cases over an extended period of time, to deepen our apprehension of educators' understandings, beliefs and practices related to active play, with the intention to explore strategies that will support educators in providing children's active play opportunities.

It is hoped that this study will inspire further research in the field of active play in early childhood, and address some of the challenges discussed in Chapter 1. It is important to appreciate the contextualised circumstances involved in exploring the phenomenon of active play, and to acknowledge that decisions made, and actions implemented depend on factors that occur across levels of influence. It is important to highlight that the endeavour of providing children with the foundations to be physically active involves collaboration among those significant adults in a child's life who spend a significant amount of their time either at home or at school, and who function as role models in shaping healthy physical activity behaviours.

In this process it was important to solve the problem of missing a clear definition of the term 'active play'. This research was able to achieve the goal of providing for a definition that is understood to fill this gap in the research, by offering a contextualised interpretation of the term 'active play'. For the purpose of this study active play was understood as "those planned or incidental, often intrinsically motivated, gross motor play-based learning experiences that usually include a cardiovascular, holistic health or broader developmental benefit". The purpose was to have a clear foundation from which to provide a number of active play opportunities across early years settings. The definition provided takes account of the diverse nature of educational settings and their cultural contexts. Modifying and adapting the term according to contextualised nuances hold the potential of leading to new insights into approaches and support mechanisms that can help educators to implement active play in their settings. Tapping

into an area of research that is at the beginning of its exploration, particularly in such a unique environment as Colombo, Sri Lanka, leaves a significant amount of space for further research to advance our understanding of the phenomenon of active play in early childhood education.

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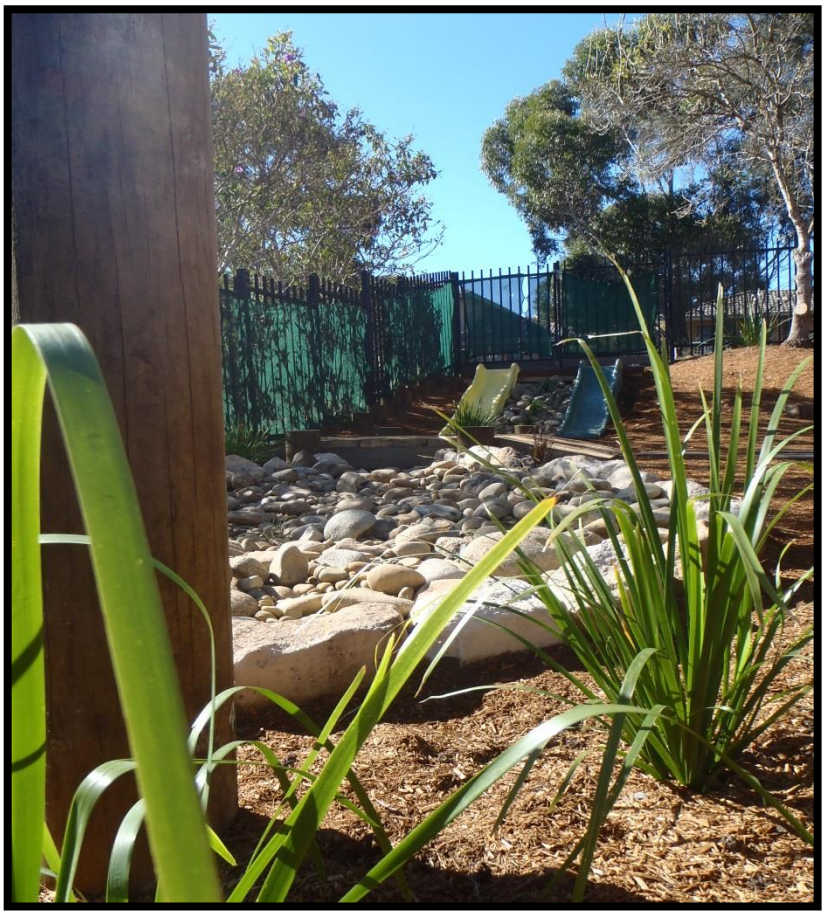
Appendix A – Active Play Scanning Tool (modified version)

Active Play Scanning Tool



A tool to assist the ACT Early Childhood Education and Care (ECEC) sector to promote active play to children in their services

Objectives of the Scanning Tool

- To **reflect** upon the effectiveness of the learning environments in supporting children's active play.
- To **identify** gaps in promoting children's active play in the setting.
- To **guide** the development of an action plan to further promote active play in the learning environments and to strive for best quality - Quality Improvement Plan.

How to use the Scanning Tool

- Each section begins with a question that asks services to **reflect** upon current practices. Record these reflections in the space provided on the scanning tool.
- Use the listed **considerations** to assist with your reflection (e.g. for learning spaces, which of the spaces listed under 'considerations' does your service have?)
- Upon completion of this reflection process, record in the **'Action Plan'** section your service's strategies for increasing the active play opportunities in the different learning environments.
- Use the listed **considerations** to assist with developing your action plan (e.g. for learning spaces, are there spaces listed under 'considerations' that you do not have and would like to create in the future?)
- Your action plan can then be transferred to your service's **Quality Improvement Plan** (QIP).

Section 1

Learning Spaces

Reflective Question: What are the learning spaces in our ECEC service's environment?

Considerations:

	Animal Habitat		Dramatic Play		Cubby House		Quiet space
	Shaded play area		Garden		Digging Pit		Sandpit
	Stage / Platform		Grass Area		Open area		Water trough
	Construction area		Hill / Mound		Bike Paths		Softfall

Action Plan: (What spaces do we have that we are not using? What spaces do we need to create? What changes can we make so that our learning spaces better facilitate active play? How can indoor spaces be modified to create additional play spaces in poor (too hot, too cold, too wet) weather?)

Outdoor Spaces 'foster an appreciation of the natural environment, develop environmental awareness and provide a platform for ongoing environmental education.' (EYLF, p.16)

Resources

Reflective Question: Within the identified learning spaces from Section 1, what resources are available to encourage children's active play?

Considerations:

	A-frame trestles		Climbing trees		Scooters		Sticks		Steps
	Animal figures		Dry creek bed		Shade		Pipes		Streamers
	Stepping stones		Watering cans		Tree stumps		Bikes		Balls
	Work bench		Flying fox		Pots		Spades		Shells
	Wheel barrows		Bean bags		Rakes		Buckets		Swing
	Edible plants		Hoops		Ramps		Chalk		Targets
	Scooter Boards		Ladders		Ribbons		Wood		Tree logs
	Brooms		Music		Ropes		Pebbles		Tyres
	Boats		Paint		Scarves		Photos		Trestles
	Books		Pinecones		Shovels		Camera		Trucks
	Variety of walking surfaces		Dramatic play Props		Kitchen equipment		Hammer and nails		Magnifying glass

Action Plan: (What resources do we have that we are not using? What resources do we need to get? How can we use recycled materials to make active play equipment? What changes can we make so that our resources better facilitate active play?)

Physical environments at services should include a range of activity opportunities to support children's physical activity, including a variety of portable and fixed play equipment and adequate shading. (Hinkley et al, p.4)

Temporal component of the early years environment

Reflective question: How does the temporal environment promote active play opportunities within your early years environment?

Considerations:

Timing of routines	Arrival time	Small & large group activities
Sequence of routines	Play time	Transition time
Length of routines	Meal time	Nap time

Action Plan: (What aspect of the temporal environment are we currently not taking into consideration in our teaching practices? What components of the temporal environment do we need to explore further? What modifications can we make that will enable the implementation and integration of active play practices?

The temporal component of the environment focuses on the timing dedicated to active play opportunities.

Section 4

Human/social component of the early years environment

Reflective question: How does the human/social environment promote active play opportunities within your early years environment?

Considerations:

Group size	Child-child interaction	Small & large group activities
Composition	Teacher-directed activities	Materials and toys that promote interaction
Teacher-child interaction	Child-directed activities	Parent involvement

Action Plan: (What aspect of the human/social environment are we currently not taking into consideration in our teaching practices? What components of the temporal environment do we need to explore further? What modifications can we make that will enable the implementation and integration of active play practices?

The human/social environment refers to interactions between children, educators and parents that help to create opportunities of active play.

Section 5

Educators

Reflective Question: As an educator, how do you support children's active play and physical development through the identified learning spaces and resources?

Considerations: (Interactions)

	Individual – one to one		Shared – small group		Shared – large group

Considerations: (Role modelling)

	Curiosity		Enthusiasm		Participation
	Demonstration		Imagination		Passion

Considerations: (Other)

	Accessing community resources (built, space, human)		Awareness of children's individual needs		Scaffold children's physical skills
	Embedding active play into the everyday curriculum		Observational recordings and evaluations		Provide positive constructive feedback
	Being aware of spontaneous opportunities		Include active play in professional conversations		Conversations with families
	Provide opportunities for risk taking and challenge		Planning intentional experiences (GMS and FMS)		Provide quality & sufficient resources
	Sharing with children the benefits of being active		Building on children's interests		Being culturally inclusive
	Including children in planning and set-up of active play		Excursions/ incursions		

Action Plan: (What changes do we need to make to the way we interact with children and model active play? Are there opportunities or experiences that we need to include in our program to better facilitate active play?)

Educators 'consistently implementing movement and physical activities as part of the program for all children'. (NQS – Element 2.2.2 – Guidance)

Family

Reflective Question: How do we share with families the importance of active play?

Considerations:

	Being an active role model		Conversations with families		Daily diary / journal
	Embed active play into the program		Family active play journal to share with service		Noticeboards / Photos / Newsletters
	Invite families to participate in physical experiences		Invite families to share their active play interests		Special active play events

Action Plan: (How can we be better at sharing the importance of active play with families and supporting them to do regular active play with their children?)

Partnerships – 'Learning outcomes are most likely to be achieved when early childhood educators work in partnership with families.' (EYLF Principle, p.12)

Physical Development

Reflective Question: During children's active play, what areas of physical development or Fundamental Movement Skills are being promoted?

Considerations: (Areas of physical development)

	Tummy time		Sitting balance		Rolling		Crawling
	Pivoting on Tummy		Creeping on tummy		Cruising		Pulling to stand
	Muscle strength		Coordination eye-hand		Flexibility		Walking
	Body awareness		Coordination eye-foot		Dexterity		Cross-patterning
	Agility		Cardiovascular fitness		Skipping		Bone strength
	Balance		Spatial awareness		Posture		

Considerations: (Fundamental Movement Skills)

	Hopping		Stationary dribbling		Catching		Galloping
	Running		Overarm throwing		Underarm rolling		Side sliding
	Jumping		Striking a stationary ball		Kicking		Leaping

Action Plan: (What areas of physical development or fundamental movement skills do the children in our care need to be working on? Are there specific skills that need to be taught? Are there games or activities we can introduce to the children to promote the development of specific physical skills?)

'Provision of safe areas and encouragement for babies to practise rolling over, sitting, crawling, standing and walking; support for toddlers to develop coordinated movement through planned experiences, such as action songs, dancing and throwing and kicking balls.' (NQS – Element 2.2.2 – Guidance)

Additional Essential Elements

Reflective Question: What additional essential elements need to be considered in supporting active play in the learning environment?

Considerations:

	Adequate shade		Early Years Learning Framework		Sustainability
	Adequate space		E&C Services National law		Supervision
	Ample time		National Quality Standard		Kidsafe guidelines
	Appropriate clothing		Physical activity policy		Sunsmart guidelines
	Routines		Physical activity recommendations		Appropriate footwear
	Cost effectiveness		Workplace Health & Safety		Active Play Everyday

Action Plan: (What else can we do to better facilitate active play at our centre? Do we have a physical activity policy? If not, complete the Physical Activity and Small Screen Recreation Policy.)

'Cancer Council ACT recommends SunSmart behaviour when daily UV levels reach 3 and above. Sun protection is generally not recommended in Canberra during June and July or when UV levels are low (under 3).'

Appendix B – Example questions for semi-structured interviews

Samples of question of educator interview

Research Question 1

1. What are early years educators' stated understandings and beliefs in relation to their active play practices in their early years settings in Colombo, Sri Lanka?

What does physical activity mean to you personally?
Would you consider yourself a physically active person?
What does physical exercise look like to you in your spare time?
In your opinion, what is the role of physical activity or active play in childcare? (Clarification:)
How important do you think it is for the children? (probe on whatever is mentioned and encourage participants to react to what others have said)
What are some possible benefits to children being outside? (*Probe on whatever they mention, (expect: a learning tool, exposure to nature, calming tool, health promotion or preventing illness)*
Can you share your understanding of the term 'physical activity' and 'active play?
What sort of activities would you consider to fall under active play?
What kind of active play practices do you offer children in your early years setting?
What kind of active play practices are children engaged in on their own?
What do you believe the value of physical activity and active play to be?
Do you think it is important to support children's physical activity and offer opportunities of active play?
Where did you get know ideas, information and knowledge from?

Research Question 2

2. How are active play practices evidenced in Colombo early years environments?
At what time of the day are children involved in physical activity and active play?
How long are children involved in physical activity and active play throughout regular school hours? How is this evidence in curricular documents (eg. lesson plans, etc.)?
Where are children physically active? Indoor vs. outdoor? Why?
What environmental elements of the early years settings do you consider to be significant to the facilitation of active play?
What temporal elements of the early years settings do you consider to be significant to the facilitation of active play?
What social/personal elements of the early years settings do you consider to be significant to the facilitation of active play?
What kind of policies does your center have about using the playground, including weather conditions, playground schedule?

Research Question 3

3. What are early years educators' insights into factors, barriers and affordances that influence the implementation and integration of active play practices within Colombo early years settings?
What environmental elements of the early years settings do you consider to be significant to the facilitation of active play?
How are outside games different than inside games? How are outside rules different from

inside rules?

What are some possible disadvantages to children being outside? *(Probe on whatever they mention, (expect: catching a cold/getting sick, less control over the children or perhaps teacher doesn't like going outside)*

What temporal elements of the early years settings do you consider to be significant to the facilitation of active play?

What social/personal elements of the early years settings do you consider to be significant to the facilitation of active play?

What factors outside your early years learning center do you belief influence the integration of active play in your setting?

How do you overcome barriers of active play in your early years setting? Explain!

What other factors do you see as impacting on the facilitation of active play in your early years setting?

Appendix C - Copy of ethical clearance letter

OFFICE OF RESEARCH
Human Research Ethics Committee
PHONE +61 7 4631 2690| FAX +61 7 4631 5555
EMAIL human.ethics@usq.edu.au

UNIVERSITY OF SOUTHERN QUEENSLAND

8 January 2018

Mr Matteo Dietz

Dear Matteo

The USQ Human Research Ethics Committee has recently reviewed your responses to the conditions placed upon the ethical approval for the project outlined below. Your proposal is now deemed to meet the requirements of the *National Statement on Ethical Conduct in Human Research (2007)* and full ethical approval has been granted.

Approval No.	H17REA258
Project Title	Investigating early years educators' understandings of, beliefs about and practices of active play in Colombo, Sri Lanka
Approval date	8 January 2018
Expiry date	8 January 2021
HREC Decision	**Approved**

The standard conditions of this approval are:
(a) Conduct the project strictly in accordance with the proposal submitted and granted ethics approval, including any amendments made to the proposal required by the HREC
(b) Advise (email: human.ethics@usq.edu.au) immediately of any complaints or other issues in relation to the project which may warrant review of the ethical approval of the project
(c) Make submission for approval of amendments to the approved project before implementing such changes
(d) Provide a 'progress report' for every year of approval
(e) Provide a 'final report' when the project is complete
(f) Advise in writing if the project has been discontinued, using a 'final report'

For (c) to (f) forms are available on the USQ ethics website:
http://www.usq.edu.au/research/support-development/research-services/research-integrity-ethics/human/forms

Yours sincerely,

Dr Mark Emmerson
Ethics Officer

Appendix D - Consent Form for Observations and Interview

University of Southern Queensland

Consent Form for USQ Research Project Observation/Interview

Project Details

Title of Project:	Investigating early years educators' understandings of, beliefs about and practices of active play in early years settings in Colombo, Sri Lanka
Human Research Ethics Approval Number:	H17REA258

Research Team Contact Details

Principal Investigator Details

Matteo Dietz
Email: [redacted]
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Supervisor Details

Prof Dr. Patrick Danaher
Email: [redacted]
Telephone: [redacted]
Mobile: n.a.

Dr. Alice Brown
Email: [redacted]
Telephone: [redacted]
Mobile: n.a.

Statement of Consent

By signing below, you are indicating that you:

- Have read and understood the information document regarding this project.
- Have had any questions answered to your satisfaction.
- Understand that if you have any additional questions you can contact the research team.
- Understand that the on-site observation will not be recorded.
- Understand that the interview will be audio recorded.
- Understand that I will be provided with a copy of the transcript of the interview for my perusal and endorsement prior to inclusion of this data in the project.
- Understand that you are free to withdraw at any time, without comment or penalty.
- Understand that you can contact the University of Southern Queensland Ethics Coordinator on (07) 4631 2690 or email ethics@usq.edu.au if you do have any concern or complaint about the ethical conduct of this project.

- Are over 18 years of age.

- Agree to participate in the project.

Participant Name	
Participant Signature	
Date	

Please return this sheet to a Research Team member prior to undertaking the interview.