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EXPLORING TIMORESE FAMILY FUNDS OF KNOWLEDGE AND THEIR USE IN EDUCATION

A thesis

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ZULMIRA DA CRUZ SOARES PINTO



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ABSTRACT

There are many factors that contribute to children's development, including their social and cultural background. Families play a significant role in children's development and the funds of knowledge that reside within a family and the wider community can be utilised in a preschool setting to make strong connections for children between their home and the preschool. Research suggests that including families' funds of knowledge in the preschool curriculum can enhance a child's engagement in the learning environment and lead to positive educational outcomes. Drawing on Moll and Amanti's concept of funds of knowledge and using a qualitative methodology, this thesis examines notions of funds of knowledge in preschool settings in Timor Leste. Through the exploration of what funds of knowledge are held by Timorese families and how these may be used in a preschool classroom by teachers, the thesis argues that there is a need for further understanding and acceptance by teachers of the importance of recognising and including families' funds of knowledge in the preschool classroom. The findings indicate that traditional attitudes about teachers being the authority in learning tend to prevail and this limits parents' ability to contribute knowledge and assistance to the preschool classroom. There is clear evidence of family and communities' holding a range of funds of knowledge that could be beneficial for children's learning if included in classroom practices by teachers. The thesis calls for extensive professional opportunities for teachers to develop understanding about funds of knowledge and how they might make preschools more welcoming for parents.

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DEDICATION

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CHAPTER I: INTRODUCTION AND OUTLINE

1.1 Introduction

There is an increasing number of scholars, researchers and educators, who recognize the benefit of pedagogical practice that is based around family resources and connection (Cooper, Hedges, Lovat, & Murphy, 2013; Harris, Andrew-Powell & Goodall, 2009; Mitchell, Bateman, & Ouko, 2015; Moll, Amanti, Neff, & Gonzalez, 1992). The concept of funds of knowledge indicates skills and knowledge that are regularly used as part of the function of families and community. These funds can be beneficial if recognized and utilized for children's educational development. Various studies (see above) have identified some of the most important benefits. Firstly, learning that is based on funds of knowledge helps teachers to create a responsive learning pedagogy, continue to develop children's interest and identity, and create a culture of belonging for children and their families. Secondly, bringing family knowledge into schools makes the family to feel validated, empowered and helps to sustain the children's culture. These scholars also assert that connections and relationships would assist teachers in learning about their students' family in appropriate and authentic ways. They also suggest that these connections between home and school help create a trusting and secure environment for children which consequently can boost children's self-confidence, making them more likely to succeed in higher education.

This study analyses funds of knowledge that Timorese families possess and their use in early childhood education. Involving four preschools in Timor-Leste, the study examines two major areas related to funds of knowledge. The first is the perspectives of preschool teachers and families about funds of knowledge. In regard to the teachers, this report examines how they perceive resources of knowledge from their students' family and their ways of welcoming and using the source of knowledge identified. From the parents' focus groups, this report explores aspirations, values, and qualities that exist and support everyday living, within both the nuclear and extended family, which are important for preschoolers' learning and development. Secondly, this report examines

observations of interactions between parents and teachers, and the engagement of parents in children's learning in the preschool.

1.2 Rationale

This is a significant study because it sought to identify different known forms of knowledge that have potential benefits for children's education. This research also examined how the funds of knowledge could be discovered and used in preschools in Timor-Leste. Regarding this aspect, I examined the patterns of relationship between parents and teachers and connections between home and preschool, particularly the recognition and sustainability of experiences and activities that children were exposed to at home.

Additionally, from learning and understanding the importance of family funds of knowledge and connection in children's development, I have developed a strong interest in early childhood education which led me to think about the culture of preschool education in my home country of Timor-Leste. Consequently, I could see that Timor-Leste families and communities possess some forms of knowledge that should be explored in relation to preschool education.

My assurance that Timorese families and community, in general, must hold certain knowledge came from my work experience in the early childhood education sector. I have seen that Timorese families hold various sources of knowledge. This was very evident through informal conversations and interactions with parents in my work as a mentor for preschool programmes across several districts in Timor-Leste. Families have high expectations, aspirations, a variety of skills and other forms of knowledge that could make an essential contribution to children's learning progress. For example, some parents were able to produce learning materials that represent cultural attributes of Timor. Other parents were very good at managing and communicating their children's everyday activities and what they think their children should learn.

However, acknowledgment and the utilization of family and community knowledge is not clearly evident in educational institutions in Timor-Leste. My experience working with teachers and from conducting this research, has shown me that schools' initiative to discover and engage with family knowledge in

everyday learning was very limited. Even though some teachers would ask for parents' help in preparing materials, it seemed to me that the teachers did not discover other important knowledge from parents; for example, parents' ability to assist children in the class. Also, I did not sense that teachers were listening to parent aspirations attentively or providing any response, also, it was rare that teachers shared information with parents about the curriculum unless parents asked. There seems to be an absence of research that could help to uncover knowledge that is embedded in communities. Consequently, this has become the area of interest for my study and I also have a passion for working with families and communities to improve early childhood services in Timor-Leste. Therefore, this research has focused on finding out what funds of knowledge exist in Timorese families and how these might be used in the preschool curriculum.

1.3 Background of Timor-Leste

This section outlines some information about Timor-Leste: its geographical setting, demographic information, political history; how the education system works in Timor-Leste; and obvious historical influences on the development and implementation of the education system. The section concludes with a brief introduction to the early childhood directorate in the Ministry of Education.

1.3.1 Geographical Setting

Timor-Leste is a small democratic republic located in South-East Asia. The country is a close neighbour to Indonesia and Australia. Timor-Leste shares a land border with Indonesia and a maritime border with Australia..



Figure: 1.1 Map showing Timor-Leste in Southeast Asia.

Source: Retrieved from <http://www.news-articles.org/maps/indonesia-924.jpg>

The physical size of Timor-Leste is about 15,410 km². Within the country, there are 13 municipalities, 62 Administrative Posts, 442 Suco/villages, and 2.225 Aldeia/Hamlets (Direccao Geral de Estatistica Timor-Leste, 2015; Antonino, 2016). Oecussi, one municipality, is in the middle of Indonesian land. Therefore, to travel to that municipality requires crossing over the land border between Indonesia and Timor-Leste, otherwise, it is reached by sea or air. Timor-Leste has two separate small islands, Atauro, and Jaco, a beautiful tourist destination island to the east of the country.



Figure 1.2: Political Map of Timor-Leste

Source: Retrieved from <https://www.mapsofworld.com>

1.3.2 Demographics

In the 2015 census, the total population was 1,167,242. Even though it is a relatively small country, it is home to different ethnic groups, including indigenous people and small fractions of people who are not Timorese, for example, Chinese merchants, and descendants of Arab migrants, and Indonesians who are married to Timorese (Molnar, 2010). According to the census, the population density is higher in Dili, the capital city, compared to other municipalities (Direccao Geral de Estatistica Timor-Leste, 2015). There are a variety of reasons for Dili having higher population density. Some of the obvious reasons are Dili is the central hub of economic activity and education, so many people move from different municipalities to Dili adding to its diversity.

1.3.3 Political History

Before the restoration of independence in 1999, Timor-Leste experienced diverse political systems, due to its colonisation by Portugal and then invasion and occupation by Indonesia.

For about 450 years Timor-Leste was colonised by Portugal. Colonisation transformed the life of Timorese in many different ways. One transformation was the introduction of the Catholic religion, resulting in the conversion of the majority of Timorese from animism to Catholicism. Even now it is the major religion in the country. Another result of colonisation was the establishment of Catholic schools. However, these schools mostly served Timorese elite families, who benefited from the Portuguese administration. There were many more ways, both good and bad, that Portuguese exercised their colonial power. With 450 years of colonisation, Timorese people adopted cultures, including religion and ways of life, that originated from Portugal. The majority of Timorese are Catholic, many schools are built under Catholic supervision, and people live their life based on teaching and values from the Catholic doctrine. The Portuguese Language continues as one of the official languages next to Tetum (the national language). Because of the political background and cultural commonalities, Portugal has been one of Timor-Leste's strongest allies in assisting in the struggles to gain the restoration of independence.

However, because a major economic problem faced Portugal in the early 1970s, Timor-Leste and other Portuguese colonial countries were more or less abandoned.

After centuries of the colonialization by Portugal, Timor-Leste was then able to gain independence. Timor-Leste proclaimed its unilateral independence in 1975. However, after only two weeks Indonesia brutally invaded Timor-Leste. From then on, Indonesia slowly took over Timor-Leste making it the twenty-seventh province of Indonesia for 24 years. During Indonesian occupation, Timorese were required to become Indonesian citizens, learn the Indonesian language, culture, and experience the education system applied in that country. Regardless of that, Timorese people were still determined to fight for their freedom from Indonesia or to regain their proclaimed independence. After a hard and violent struggle involving jungle guerrilla activities, Timor-Leste gained its referendum in 1999 and voted for independence. From 1999 to 2002, Timor-Leste was under United Nation Transition Mission, to assist and prepare Timor-Leste's restoration as an independent nation. The assistance from the UN mission encompassed all areas of development: setting up government, rebuilding infrastructure, and developing an education system. The UN transition mission successfully lead Timor-Leste to gain its restoration as an Independent Nation in 2002. From then on, the elected government has had the responsibility for the continued development of the country.

1.3.4 How the education system works in Timor-Leste and historical influences on the development and implementation of the system

The education sector is one of the prominent pillars of every nation's development. Therefore, Timor-Leste's government places significant importance on the development of its education system and implementation. The vision for education in Timor-Leste outlined in the National Education Strategic Plan is that:

...in 2030 the people of Timor-Leste will be educated, knowledgeable and qualified to live long and productive lives, respectful of peace, family and positive traditional values. All individual will have the same opportunities for access to quality

education that will allow them to participate in the economic, social and political development process, ensuring social equity and national unity. (Ministry of Education Timor Leste, 2011. p. 17)

The education system in Timor-Leste comprises several levels: pre-school education; basic education; secondary education, which includes secondary general and secondary vocational education; higher education; and recurrent education (for youth and adult to gain qualifications and preparation for works and cultural life, understanding the world and exercising citizenship) (Ministry of Education Timor Leste (2011). For each level, there is a specific curriculum, and teaching materials facilitate the learning process. However, due to the long-term colonisation by Portugal, the development of these materials has been tremendously influenced by Portuguese concepts. Some of the main factors that indicate that influence, as noted by Macpherson (2011) and Shah (2012), are that most of the government people or the system developers had only experienced a Portuguese way of doing things. These people were educated during Portuguese colonisation, therefore, were familiar with Portuguese system. Secondly, as a result of being accustomed to the Portuguese system of education, most of the international consultants for the development of curriculum, education policies and learning materials were from Portugal and Brazil.

The other influence is the use of the Portuguese language. During the 24-year struggle to regain independence from the illegal occupation by Indonesia, other than Tetum, Portuguese language was utilized to highlight and make public the struggle. From that, Portuguese was adopted as an official language, and used as the instructional language at school and university along with Tetum. Almeida, Martinho, and Lopes (2012) highlight the challenges faced by teachers and students in speaking and understanding Portuguese as the lingua franca was Tetum and during the Indonesian occupation, Bahasa Indonesian was the official language.

Under the Ministry of Education, every level of education has its own directorate responsible for the operation, development and maintenance of the quality of education and sustainability of the process. These directorates are also established in every municipality, and are responsible for sustaining education programmes in

the region that they cover. Within the structure, there are administrators like directors, school inspectors and other main bodies assuming various roles within the system. Following is a brief description of the National Directorate of Pre-School.

1.3.5 The National Directorate of Pre-school in the Ministry of Education in Timor-Leste

In 2010, a law was promulgated to create the National Directorate of Pre-school. Like other directorates, the National Directorate of Pre-school manages the administration, teachers and curriculum for the preschools. Starting with the establishment of the directorate, the attention from government and its non-governmental stakeholders toward early childhood education in Timor-Leste has increased (Ministry of Education Timor Leste, 2012). The law was then followed by curriculum reformation in 2014, the continuation of professional training for teachers, development of more preschool facilities, and the provision teaching and learning materials.

In the curriculum framework, underlying principles demonstrated the importance of including families and communities in preschool and, most importantly, in empowering them. The relevant principles are:

One, to establish a supportive environment for children, families, and staff that provide opportunities to enhance awareness, refine skills and increase understanding. Two, understand that the empowerment of families occurs when programs are jointly managed and reflect the perspectives of families, communities, and staff. Next, to build a community where adults and children are treated as individuals while at the same time a sense of belonging to the group is reinforced. To develop a continuum of care, dedication, and services that allow stable and consistent support to families and children (Ministry of Education Timor Leste, 2014, p. 4)

These principles represent the core concepts of what early childhood services are supposed to be. They provide a clear illustration that supports empowerment for families and community and that families should be able to contribute to the

programme. This would suggest that the government has a significant responsibility to ensure an inclusive, cooperative, supportive and responsive learning environment. In addition to principles about families and community, there are also some other core principles from the Preschool Curriculum that are very relevant to present here, such as:

First, children's participation in the community that the preschool is located in is highly valued. The parents also have essential roles in the students' learning. For example; they can be invited sometimes to help and participate in class. Second, students are unique, and each one of them has their own needs, so all learning activities reflect and respond everyone's needs. Third, Students should be provided an opportunity to learn better according to their capacity and knowledge, including learning through play. The last is, each student has its value: all of them have capacity and should be respected (Ministry of Education Timor Leste, 2014, p.4)

These principles draw together a wide range of important values and conditions that would help children to learn and develop holistically. The engagement of children within their community, and parents' participation in their child's preschool, is obviously emphasized. These principles suggest that it is essential to cultivate a learning process where parents could be welcome to assist with some learning activities. These principles encourage teachers and parents to become partners in their children's learning. Teachers and parents have their roles, but it is extremely important to perceive and implement their roles in a complementary way as they are supporting the same child. Another concept that is valued in the early childhood principles of learning and development is that children should be seen as capable individuals and, importantly, they should be guided according to their uniqueness and ability. This idea acknowledges that every child has their own unique qualities. Therefore, educators are encouraged to get to know about that through any possible way. Teachers need to be thoughtful, flexible, open-minded and responsive in their teaching every day.

Additionally, the principle cited above illustrates a high quality of early childhood education if the principles are well implemented, or educators match their

pedagogical practice with the philosophies. However, this is where Timor-Leste's educators and policymakers have to place more effort and have enough courage to implement and progress. From my own observations, there is a certain level of understanding by educators and policymakers of these concepts and various efforts, through various professional training programmes and encouraging good practice, have been made to implement them, I would suggest there is room for further improvement. There should, perhaps, be more a understanding and strategic approach to the practices. Educators, policy designers, and the implementation system should always be exposed to some more innovative, responsive and advanced concepts within the area of early childhood education in order for their work to reflect the main principles that have been set out in the policy framework and the curriculum.

To generate an innovative and responsive pedagogy, teachers need to gain a professional understanding of the value and means to discover children's and families' knowledge and experiences. The term "funds of knowledge" is used to represent such knowledge and experience. Funds of knowledge are "historically accumulated and culturally developed bodies of knowledge and skills essential for household or individual functioning and wellbeing" (Moll et al., 1992, p. 134). Bronfenbrenner (2005) stated that within everyone lives the heart of the community, the "family" which is "the most humane, the most powerful and by far the most economical system known for making and keeping human beings human" (p. 22). Adding to this concept, Vygotsky's theory also reveals that children's daily experiences at home and the community shape their thinking (Moll, 2013). From these theories, it can be expected that, as a multicultural country, Timor-Leste's communities should have a wealth of knowledge. The multiculturalism in Timor-Leste is illustrated by different aspects. One aspect is the variety of languages spoken, despite a relatively small population (total 1,167,242). Timor-Leste has around 35 mother tongues, and Tetum and Portuguese as official languages. Many people in Timor-Leste speak more than one language often because of the high numbers of interracial marriages. Additionally, usually, once or twice in a week, the nearby villages would come together in the traditional market in one village and from that people talk together in each one's own dialect and the neighbours' dialects. Most Timorese speak

Tetum and every day they are exposed to the Indonesian Language as well as Portuguese, as there are still many newspapers, TV programmes and radios using Indonesian. Additionally, Timor-Leste is rich in indigenous knowledge. The indigenous knowledge is generated from different sources, for example from ancestral belief to natural power, belief in ancestral spirits, knowledge transmitted from religious teaching, and practical knowledge about how to fulfil daily needs. Types of indigenous knowledge will briefly be touched on in Chapter 2.

1.4 Objective of the Study

This research was undertaken to explore funds of knowledge that exist in Timorese families and communities. In my perspective, it is insufficient to provide only an opinion that family knowledge and contribution are fundamental to children's learning, without a serious action towards or consideration in discovering and making use of them. My primary objective was that through this research I would be able to gather family knowledge to help inform preschool teachers and policy makers.

Another purpose of the research was not only to bring funds of knowledge to the surface, but to be informative for participants as well. Through the process of discussion, informal talking and my engagement with the preschools during the study, I hoped teachers and parents would realise the benefit of acknowledging the sources and knowledge possessed by families. A result of the research might be to encourage teachers to become more reflective, friendly and committed to establishing and maintaining a positive relationship with parents and community. Teachers might also open up more to learn about students and their families without stereotyping anyone. Similarly, I would hope that through the research, policymakers or government could establish programmes and initiatives to support teachers and parents to work together well.

The final purpose of this research was to examine the patterns of relationship and engagement between parents and teachers, and the nature of parents' involvement in their children's preschool. These are the major aspects that determine whether or not family funds of knowledge are welcomed into the preschool.

1.5 Research Questions

This research was guided by three main research questions.

RQ1. What funds of knowledge exist within Timorese families?

RQ2. How do Timorese families use their funds of knowledge to enhance children's learning and development?

RQ3. In what ways are family funds of knowledge welcomed and used in children's preschool?

Through RQ1, I was able to identify the different knowledge types held by parents and their community. RQ2 enabled me to explore and understand the extent of involvement of parents in preschool and their children's learning and development in general. It also provided an opportunity to develop an understanding of teachers' ways of discovering what knowledge students and their family possess and how that knowledge was used to enrich children's learning. Finally, from listening to the conversations around this question, I came to understand the difficulties that inhibit possibilities for teachers and parents to work in partnership. Lastly, RQ3 explored the participants' ideas about ways of welcoming family knowledge, utilizing this in everyday learning, and the nature of engagement of parents in everyday learning.

1.6 Significance of the Study

This research is significant for all stakeholders in the early childhood sector in Timor-Leste. First, the outcome of this research can help government bodies, particularly policy makers and curriculum developers, and other non-governmental organizations to examine their support in early childhood educational provision. Secondly, the results of this study can be used to enhance the professional development of preschool teachers. For example, by increasing knowledge about family funds of knowledge, teachers could develop more effective approaches to relating to their families and to working with the children that they share. Finally, this research will directly strengthen the highly placed value on the notion in the Preschool Curriculum that learning in preschool is part

of the community and that parents play a significant role in student's learning (Ministry of Education Timor Leste, 2014, p. 5). In summary, the result of this research is expected to bring awareness that children naturally own prior knowledge that should be recognised and sustained. The most important way to realize that is through the parents' and teachers' effective relationship and preschool initiatives to involve parents. Eventually, this effort could nurture children's self-esteem, build their learning identity, and build on the knowledge that children carry from their home and community.

1.7 Thesis Outline

The remainder of this thesis is comprised of five chapters.

Chapter 2 is the literature review. The review covers the concepts of family according to sociological views and the family in the context of Timor-Leste. It also covers theories about funds of knowledge, with descriptions and analysis of some of the previous funds of knowledge research studies. Finally, this chapter also explains the benefit of the preschool teacher getting to know family knowledge and the importance of parents' engagement for their children's learning at school. Chapter 3 is the methodology section. This chapter describes the methodology and methods used for data collection for the research project. It explores theoretical frameworks that illuminate this research. Chapter 4 is the findings section. This chapter presents the findings of the research project and highlights the themes that have emerged from the data. The relevant themes are explored under each research question. Those themes are related to everyday life in Timorese family environment and some of the pertinent values that guide children's way of development. It also presents various vital traits that parents and family have which could also be considered as funds of knowledge. It also explores parents' aspirations for children's learning, including specific skills that parents expect children to learn. Lastly, the chapter examines ways for teachers to welcome funds of knowledge and teachers' understanding of funds of knowledge and explores the main difficulties that hinder the searching for resources of knowledge. Chapter 5 is the discussion section which weaves the literature and the study findings together. This part is constructed according to the themes that

have emerged in the results. Chapter 6 provides a conclusion, recommendations, and implications of this study.

CHAPTER II: LITERATURE REVIEW

2.1 Introduction

Education plays a major role in a person's life. It helps people to develop and transform. In formal education, government and professional educators such as teachers are the main bodies that operate the education system, including the implementation of a curriculum and to guarantee the progress of teaching and learning in school. However, knowledge is socially constructed, which indicates that the community and family should also be considered as a source of knowledge, and it is essential that their knowledge is included in the process of teaching and learning.

Various social activities take place within the family and community constantly. The activities permeate the development of knowledge because during the process of undertaking tasks people communicate and implement ideas. This practice is underpinned by Rogoff's sociocultural theory in the sense that participating in an activity children will absorb the knowledge and skills that are used in the endeavour (Rogoff, 1990). As important as Rogoff's theory is in the construction of knowledge through social participation, from Vygotsky's point of view, Glassman (1996) argued that "the evolution of knowledge [is] derived from undertaking any activity which then leads the thinking rather than thinking structure driving activities" (p. 264).

In a child's life, their first social group would be their own family, where they are exposed to a variety of activities which lead them to learn and develop certain knowledge. This shows that children learn not just from school, but that they also develop experiences and understanding from home. This prior experience and knowledge have been defined by Moll et al. (1992) as "funds of knowledge." One of the prominent findings of Moll et al.'s study noted that "teachers who [are] exposed to the home-based context of learning will know children as a whole, not merely as a student, taking into account or having knowledge about the multiple spheres of activities within which the child is enmeshed." (p. 133).

It is emphasized that discovering and integrating funds of knowledge into the learning process can create a teaching and learning environment that is more responsive and meaningful for students (Clarkin-Philips & Carr, 2012). This can also mean that the process of learning is culturally responsive, which permits not only the advancement of academic achievement of the students, but also encourages their ability to be creative in problem solving (Gay, 2000). In validation of culturally responsive teaching, Gay defined “culturally responsive teaching as using the cultural knowledge, prior experiences, frames of reference, and performance style of ethnically diverse students to make learning encounters more relevant to and effective for them” (p. 29). To help understand the acquisition of knowledge through families, this study will explore the concept of family, education in Timor-Leste, and discuss relevant theories around family funds of knowledge.

2.2 Understanding the Concept of Family

While everyone in the world belongs to a family, there are different definitions of the meaning of family. Most social scientists define family as based on family structure and function (Powell, Blozendahl, Geist & Steelman, 2010). A description of the various definitions of family in general and in the context of Timor-Leste are presented in the following section.

2.2.1 What is family?

In everyday discourse, the family is often understood as a unit of people who share living under the same shelter. They would normally be a couple, or a father and a mother with their children. Powel et al. (2010) stated that traditionally family is a unit or set-up involving a couple, usually a man and a woman, running a household a producing and raising children together. This traditional description of a family, however, is not as common as it used to be. As time progresses, the definition of family has become more varied due to the existence of different family structures . Wilson (1985) defined “family [as] a group of people that [are] related by blood or by law, living and associating with one another to a common purpose, that purpose being the provision of food, shelter and the rearing of children” (p.2).

Wilson's statement seems to reflect a variety of family structures that exist today, and it defines these families in two ways. One is that, family indicates those people who share the same bloodline, otherwise known as kin. Sociologists explain that there are two types of family that are attributed to kinship; nuclear and extended. A nuclear family consists of the father, mother and children or a pair of adults and their children, whereas the extended family is distinguished by a wide range of kin who live and or work closely to other family members. Another category of family are those related by law. These families can be understood as family that is formed by marriage, they can be a woman and a man or same sex marriage and other types of family. The various definitions show that the structure of a family changes over time and with changes in society. Wilson (1985) and Mckie and Chunningham-Burley (2005); and Ruspini (2013) all agree that families are an institution that is not static.

One definition that appears to represent all types of family is that provided by Schwartz and Scott (2007) who define family as “any relatively stable group of people bound by ties of blood, marriage, adoption; or by any sexually expressive relationship; or who simply live together, and who are committed to and provide each other with economic and emotional support” (p. 3). While the overall representation of the various definitions of a family has been asserted, it is prudent to consider what Wilson (1985) has highlighted here, in that “family forms also vary according to the tradition and culture of a particular society at a particular time of history” (p.5). For example, the members that make up a family can vary significantly. In some cultures, the family may be limited to only the father, mother and children, whereas in other cultures the family may be considered from a multi-generational perspective.

Additionally, although there are different types of family, the most common are still nuclear and extended families. Living in these families have their own advantages, particularly for nuclear and extended families. For instance, the Saxena and Tripathi (2015) study on the comparison of social values between children from joint families (also considered an extended family for those sharing the same shelter) and nuclear families in India, suggested a number of different potential advantages.

Living in [a] nuclear family would encourage self-initiative, independence, self-reliance among its members. It also encourages decision making among children, which gives them greater self-confidence and considerable privacy. Furthermore, extended family would encourage more cooperative and accommodating skills, emotional and economic support in a sorrowful event and care for eldest and help for helpless and unemployed. (p.508)

These findings showed that types of family instil particular types of life skill. Being born in either structure of family on the other hand has limitations. For example, children in nuclear family would be very independent and private, but they might find it difficult to cooperate with outsiders. Similarly, children from an extended family would be cooperative but working alone would be challenging for them. Overall, nuclear family members might find it challenging to adapt to the way of living as an extended family, with extended family members also unable to adjust to living the nuclear family life style.

2.2.2 Family Functions

Regardless of the changes made in living arrangements over time, all families assume similar significant functions. The description of functions according to Wilson (1985), Mckie et al. (2005), Schwartz et al. (2007), and Saxena et al., (2015) are outlined in the following section.

2.2.2.1 Family functions as reproduction

Reproduction is a natural function of a couple wishing for a child, though there are couples who prefer not to have children. On the other hand, in a society where family can be formed by same-sex couples, they are unable to perform this reproduction function in their partnership. They can choose to adopt children or they could even have children with other people, depending on their personal perspectives. As times progress, family structure will gradually become more developed and flexible, and as a result, while reproduction may be a primary function, it is more of decision based on the partnership.

2.2.2.2 Family as a place for socialization

Early instances of socialization occur through the parent and child relationship (Grusec, 2011). Within this socialization, parents demonstrate their parental roles by preparing proper environments for their children. Also, children are biologically ready to socialize with the environment that they are in. In this case, parents are expected to perform their management role well by ensuring their children are in the right environment and exposed to the proper resources, because the environment that children associate with will shape their attitudes and beliefs. Socialization is “the process where an individual is taught the skills and behaviour patterns needed for competent functioning in the culture where they are growing up...” (Drewery & Claiborne, 2014, p. 68). One important reality is that not every type of knowledge brought into family that facilitate interactions inside the family is always positive. This is because family members are social beings, who other than their primary family, are relating with other social groups that can feed them with both right and wrong attitudes, which are eventually brought back to the family.

Furthermore, in this digital age the effectiveness of family socialization is shifting. Sime and Priestley (2005), and Eynon and Malmberg (2011) argue that the increasing use of technology devices by parents and children affects socialization within the family. Young children are perhaps more attached to games and television, and in some cases, may require parental mediation. Studies have found that in the case of television viewing, parents usually apply certain rules to manage children’s access to television (Fujioka & Austin, 2003; Martínez de Morentin, Cortes, Medrano & Apocada, 2014; Lee & Chae, 2007). In practice, while the approach above appears to be successful in decreasing television viewing, it also increases the use of other technology devices such as computer games (Van Den Bulck & Van Den Bergh, 2000). These studies on media influences seem to suggest that parental roles of ensuring the effectiveness of children’s use of technology is essential, but at the same time parents must be thoughtful in their interventions. If children are exposed to digital technologies without proper control from parents, their chance to socialize with people around them is limited. Consequently, at some point parents may feel disappointed or

they would think that their children are uncontrollable. Other than that, over-exposure to technologies reduces the chance to learn important abilities for interacting with other people. Wilson (1985) suggests that how and what children learn will be affected by the cultures and traditions of the family.

2.2.2.3 Family should fulfil economic and emotional needs

The economic responsibility usually lies with the adults in the family. Economic responsibility accounts for a wide range of needs, for instance, food, clothing and financial support, and housing. Wilson (1985) and Ruspini (2013) assert that the economy is one of the leading factors to changes in the family living arrangement and family size. Economic demands may also reduce the effectiveness of parental support for their children's education, especially in their availability to work with their children's school. This is often because parents allocate more time and energy to fulfil family household needs (Lueder, 2011; Boag-Munroe & Evangelou, 2012).

2.2.2.4 Family forms an individual's personality

Wilson (1985) and Mckie et al. (2005) highlighted that the family shapes the identity and personal development of its members. The concept of identity and personal development has a significant impact on the growth of a person. For example, children who grow up in a situation where they must work to help their parents fulfil everyday needs are likely to become independent at an early age. These children could potentially be more disciplined and persistent in life, as they may acquire important life skills while working. In contrast, children who experience growing up in an economically sufficient family are more likely to experience an easy and comfortable life, and may face a delay to being independent if they are not properly guided. These instances illustrate that family conditions, activities, or anything that happens within a family, open the space for children to learn and develop. The strong influence of family on children is because family is the most immediate environment for children. According to an ecological point of view, children are more likely to undertake the same activities they are often engaged in or exposed to, for example a child is more likely to learn

to talk if people around her or parents are actively talking to her (Bronfenbrenner, 1979).

2.2.3 Concept of family in Timor-Leste's culture

The society of Timor-Leste is made up of families who have strong bonds. Almost all Timorese families embody the concept of kinship, which generally comes from both the maternal and paternal sides. The connection as family will continue from generation to generation. One way to understand and get to know who may be considered family is through *Uma Lisan* (Timor's sacred dwelling).

Uma Lisan refers to the sacred, ancestral dwelling but also to the extended families, unfolding through time and its life way (*lisan* or custom). *Lisan* incorporates governance, but it is governance embedded in what is grasped as ancient unity with ancestors, the natural world and the unseen word of spirit. (Brown, 2012, p. 60)

Every family lineage will have their own *Uma Lisan*, where members often come together for different types of important cultural celebrations (*lisan* or customs). Because of the relationship that lies within this kind of kinship, most of society lives in a very large extended family. In a household, a family may already have many biological children, but there are still usually grandparents, siblings and other relatives who also live in the household. This living arrangement is common and culturally valued within the society.

However, Timorese societies are also experiencing changes. The Timorese family is also not static as emphasized by Wilson (1985), Mckie et al. (2005), and Ruspini (2013). There are a number of changes emerging in the families of Timor-Leste. At the moment, in terms of both living arrangements and functions, Timorese families appear to be changing into both smaller and larger family sizes. The smaller sized families represent an increasing preference for couples to have a limited number of biological children. Interestingly, at the same time many nuclear families are also allowing relatives, who might be their immediate siblings and cousins, to live with them. There are a variety of reasons why these changes may be taking place.

First, by having a smaller number of children, parents have a greater ability to parent in a quality way and the financial resources to enrol their children in quality schools. Secondly, those people who are living with them are related by blood and must be supported in terms of education and other needs if they are students or unemployed. On the other hand, often these relatives in turn help the parents to look after the children and contribute to the household tasks. In Timor, it is a cultural practice that family siblings or cousins who have work automatically assume a moral responsibility to support other members of the family. This kind of family reflects the statement of Schwartz, Luyckx, and Vignoles, (2011) that the family is a highly complex social organism that mirrors and actively interacts with each cultural and social context (p. 566).

2.3 Education in Timor-Leste

2.3.1 Formal Education

The development of formal education in Timor-Leste since independence is gradually progressing. Education is recognised as the vital mechanism of developing individual capacities and improving the social fabric of Timorese society (Shah, 2012). The system of education in Timor-Leste is guided by the following principles written in the National Education Strategic Plan :

... focusing on the quality of teaching and learning process and outcome, placing a consideration on the local and social differences, recognizing that education produces social and economic well-being, involving families and communities in the decision-making at school level, sustaining social partnership and promoting different pathways through the education system toward higher education opportunities. (Ministry of Education Timor Leste, 2011, p. 58)

These fundamental ideas suggest an inclusive and complex educational system, which needs high levels of professional ability, knowledge and the competency to execute programmes. Although, this seems very challenging for Timor-Leste as a new nation, the Government, especially the Ministry of Education, work alongside their stakeholders to develop and implement various strategic

programmes. There is curriculum development, reformation, reinforcement throughout all levels of education, from preschool to tertiary education.

An example in the preschool level of the development and implementation of some relevant programmes is the facilitation of professional development training and monitoring for teaching and learning in Timor preschools. These activities are undertaken to ensure teachers' understanding of curriculum and their ability to apply their understanding in their teaching and the learning processes in preschools. In the teaching and learning process, family and communities also are highlighted as important entities to collaborate with for quality teaching and learning, such as by involving them in decision-making (Ministry of Education Timor Leste, 2011; Ministry of Education Timor Leste, 2014).

There is evidence that several years after independence, numbers of community-supported preschools were established, including the provision of learning rooms and selection of teachers. The involvement of communities in those early years fundamentally indicates that communities, which consist of families, have initiatives and potential to be worked with. This means that early childhood education needs to support appropriate approaches for involving parents and making use of their knowledge about children's development.

2.3.2 Education within Timorese family

As well as learning from school, Timorese families have their own ways of educating their children. Education in Timorese families is mostly based on Catholic religious teaching, which then reinforces this culture within families and society in general. Hence, religious commandments are the main guidance for the life of family members. From the religious activities, people are educated to unite, associate with each other, and develop more personal commitment (Carey, 1999). Church is recognized as the primary entity that develops Timorese national and cultural identity, for example Tetum, the Timorese National Language (Carey, 1999; Hodge, 2013).

Around the early 1980s, the Catholic Church in Timor-Leste proposed to the Vatican (World leader of Catholic Church) to utilize Tetum in mass across Churches in Timor-Leste. The proposal was then approved and afterward the

Church wrote its doctrines, instruction of mass and values of Catholicism in booklets in Tetum. Since then, mass and Catholic teaching have been in Tetum (Gabrielson, 2001). Because the Church use of Tetum had expanded, Timorese people who come from different districts would start to communicate to each other in Tetum. Additionally, Tetum was used by Timorese to pass their indigenous history verbally at home and schools, hold secret meetings to discuss the political situation, find spiritual solace and political guidance in the Catholic Church (Arenas, 1998, p. 145). This experience represents the development of culture and identity at a national level.

Additionally, in education within family life on a daily basis in Timorese family there are various principles and practical approaches. A common example might be that first, every parent teaches their children to respect and obey older people because they are the people who raise the child, fulfil household needs and as adults, they are believed to have gained more experience and knowledge about life. In Timorese society, the practice of respecting and obeying adults is nurtured in young people as an obligation, which reflects a significance of the kinship relationship (Wilson, 1985). Being born into the extended family structure, the obligation that young people have is not only for their parents but also for all adults within the link of the family structure. In a general perspective, these attitudes also are fundamentally guided by morals and teaching from the Catholic Church, but they are also very important in indigenous tradition and belief.

Timorese young people are traditionally educated to be respectful and obey cultural customs, with the belief that failure to comply will threaten an individual's well-being. For example, if one fails to comply they would encounter hardship in life, so regardless of how hard the situation, participation in any cultural ceremony is essential. Culturally it is believed that obeying and respecting adults, specially uncles from the maternal side and the mature person who is in the family *Uma Lisan* can prevent suffering or illness, infertility, natural disaster and other curses (Brandao, 2011).

The second most common aspect of education within the family structure is that with or without awareness, Timorese families instil in their children the ability to be independent and responsible. As Rogoff (1990) suggests, children learn from

adults who are around and look after them. She describes this way of learning as “guided participation”, in which children are actively playing the central roles together with their companions and enhancing their learning through shared activities. Rogoff also highlighted that the main elements that assist children to progress while sharing activities with adults are cooperation and communication. Within these two key aspects, both adults and children can adjust to different approaches in complementary and even conflicting roles. Timorese youngsters learn through participation in the household such as cleaning, taking care of younger siblings and helping to sell materials. For children who are raised in rural and agricultural families, there are more activities to be involved in, such as assisting their parents in farming and taking care of their livestock.

2.4 Funds of Knowledge

The recognition of benefit of funds of knowledge in early childhood settings has increased worldwide (Cooper et al., 2013; Mitchell et al., 2012). Originally, funds of knowledge had been classified as “an anthropological term that developed to define resources and knowledge that households manipulate to make ends meet in the household economy” (Hogg, 2011, p. 667). This concept then inspired educationalists to see whether funds of knowledge could also be used for benefit in the teaching environment. Therefore, theories were developed around the ideas. Two of the most influential theories, those of Bronfenbrenner and Vygotsky, about funds of knowledge are discussed in the following sections.

2.4.1 Bronfenbrenner’s ecological system theory on human development

This theory highlights the influential factors during the process of a child’s upbringing. Bronfenbrenner (1979) asserted that “human development is the product of interaction between the growing human organism and its environment” (p. 16). The description of Bronfenbrenner’s ecological systems or the influential factors for human development is:

The first is the **microsystem**, it refers to a pattern of activities, roles and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics. The second is the **mesosystem**, which emphasizes on the

interrelations between two or more settings in which the developing person actively participates (such as, for a child, the relations among home, school, neighbourhood peer group; for an adult, among family, work and social life). Next is the **exosystem**, which indicates to one or more settings that do not involve the developing person as an active participant, but in which events occur that effect, or are affected by, what happens in the setting containing the developing person. Finally, the **macrosystem**, it refers to consistencies, in the form and content of lower-order system (micro-, meso-, exo) that exist or could exist at the level of the subculture or the culture as a whole, along with any belief systems or ideas underlying such consistencies. (pp. 22-26)

This theory argues children's development is affected by a wide range of factors. The influence begins as soon as children are born, for example they would immediately experience whatever events that happen in those systems, whether directly or indirectly toward their physical and emotional development. Additionally, drawing on Bronfenbrenner's model, Drewery et al., (2014) also highlighted that influences on children's development are varied, being grounded in a particular society and a particular time in history. This could be illustrated by recognising that children would encounter different support from their upbringing from one culture to another, even one family to another. Within a certain community there could exist common values and perspectives that dictate the patterns of parenting and ways of society that contribute to the children's everyday life.

Therefore, in the context of early education in preschool it is important acknowledge this and when connecting with families it is important for school to have culturally sensitive ways of making connections. Learning about different ideas and beliefs which could influence the way a family relates to school could be one way to encourage a positive link between school and home. The experience of McDevitt (2016) shows that applying the approach of building parent-teacher relationships that are grounded in culture and context could reveal different types of knowledge and needs of children and their family.

2.4.2 Vygotsky's theories on cultural mediation

Vygotsky believed that the cultural and social experiences that children are involved in mediate their cognitive development. This theory emphasizes that children's thinking is shaped by their daily experiences at home and in the community to which they belong. Children's cognitive development occurs through interactions with people who are present in their environment and through their involvement in activities. Particularly for preschool children, home and preschool are the main environments where they could acquire knowledge and become competent learners. As children's cognitive ability develops, cultural and social experiences that they encounter can mediate and support that development.

Therefore, educators need to be aware and responsible to discover and understand how children can learn better. Educators must relate to families and community's culture so they can identify the patterns of thinking to create responsive learning that leads to success.

2.4.3 Importance of the theories to early childhood education

Bronfenbrenner and Vygotsky's theories are associated with each other and together set a solid framework for early childhood learning settings. Bronfenbrenner illustrates types of linkages in society that influence children's development and particularly emphasizes interaction between those social interlinkages and their ability to change the course of the development (Drewery et al., 2014). This concept would essentially help early childhood educators to raise their awareness about different influences that their students have. As a result, this would enable educators to discover ways of reinforcing knowledge that children have acquired through their interactions in their different micro- and meso-systems. Bronfenbrenner also shows the importance of recognizing and seeking to enhance positive cooperation between school, family, and community.

Vygotsky's socio-cultural theory serves as another beneficial concept that helps adults understand children from a socio-cultural perspective, which could potentially better support them to exercise their role in children's learning and development. Vygotsky emphasises that the sociocultural context of the child significantly influences their construction of knowledge (Drewery et al., 2014).

This idea guides educators to think about children as active beings, who experience other aspects of life that contribute to how they build understanding about aspects of their lives.

These two theories become fundamental concepts for educators to consider in a wide variety of aspects within their teaching and learning process. Those different aspects include culture, language, and wider influences of children's lives. Scribner (1990, p. 92) acknowledged that adapting how society performs in their everyday lives and their cultural materials builds the strongest foundation for the creation of a pedagogical environment. Other than establishing a solid learning setting, teaching children in their ways and recognising funds of knowledge would facilitate an effective relationship among different entities that share the child and nourish students' sense of belonging. Mitchell et al. (2015) stated that "pedagogical practices, relationship and family contribution help to build a culture of belonging" (p.16).

2.5 Studies about Funds of Knowledge

Below are some studies conducted which were grounded in Vygotsky and Bronfenbrenner's theories in finding out knowledge in families and community through a social and cultural approach.

2.5.1 Study of funds of knowledge for teaching.

Moll et al. (1992) conducted a study establish innovative methods of teaching in classrooms that were grounded in funds of knowledge from households. Within the study, the researchers visited Mexican families and collected their information with open-ended interviews and observations. What was interesting and can become an essential inspiration for today's teachers was that instead of showing themselves as just passive researchers, they positioned themselves as learners who came to learn about the family's life background. The researchers based their study on the ideas of Velez-Ibanez and Greenberg (1992) who argued that knowing the variety of work in families uncovers funds of knowledge that exist within the households. For example, each household has knowledge and skills around maintaining their survival and livelihoods. With strong collaboration by families, this study successfully gathered more information about the work history

in each household. As a result, researchers were able to discover what children obtain from their family and social life, and how they form their ways of learning. The teacher-researchers came to realize that their students actually have much more to their history than just being students. They collaborated with an anthropologist in the planning for class and included relevant themes as a result of the children's communities' funds of knowledge to try and meet their student's best interests.

2.5.2 A specific study on Pasifika children's learning and identity development in New Zealand.

Unlike the research by Moll et al. (1992), Cooper et al.'s (2013) study sought only funds of knowledge in a family and the community that a particular child was involved in. The study came about from a teacher recording a child's interest in drumming. That collaboration and subsequent successful family visits led to a realization that the child's father was a drummer and that the child always plays the drums in their church. This illustrates that family and society are the source of knowledge. An essential outcome here was that by knowing these interests, the teacher was able to work together with the parents towards the extension of this knowledge and help the child to build his identity and become more confident in expanding his interest. This research had a significant impact on the child and his family.

2.5.3 A study on exploring the challenge and possibilities for early childhood provision from the experiences of Congolese refugee families in New Zealand

Mitchell and Ouko, (2012) carried out research with Congolese refugee families on their points of view about early childhood provision and to identify the funds of knowledge existing in those families. In an effort to reach the research objectives, the researcher approached the families directly and, using an interpretive strategy, analysed the information gathered from group discussions. In their conclusion, Mitchell et al., (2012) stated that the refugee families wanted a provision of service that encouraged social and cultural integration. It was also noted that the families themselves recognised their existing knowledge, which

their early childhood services did not use. This study also revealed that these families still found it difficult to access educational institutions and they needed assistance in that area. This problem is also reflected in Boag-Monroe and Evangelou (2012) who noted that cultural differences and language barriers contribute to the lack of engagement from minority families. In such a case, Tunstill, Allnock, Akhurst and Garbers (2005) suggest that a deeper understanding from services about a family's culture and needs is one way to tackle the issues.

2.6 Analysis of the Studies

These previous studies show that there are possibilities and benefits from discovering what knowledge is available in families and communities. Visiting, listening and learning about children and their families were the most useful approaches applied by these three studies. Regarding the scale of the studies, Cooper et al. (2013) seems to be a little narrow compared with Moll et al. (1992) and Mitchell et al. (2012), as that study was limited to only one child's interest. Despite the limitation, Cooper and her colleagues' study represents a deeper study and interpretation of the child's interest and development of his identity. The idea of seeking to sustain the interest and potentiality that students have through working with parents is one of the major objectives of learning in early years. Therefore, this approach is essential for educators to adopt when there is certain potential or trait shown by their students. This can be done on a daily basis within the teaching and learning process, for example, informally communicating with parents on that purpose when parents drop and pick up their children.

While Cooper and her colleagues' study encourage a teacher to continue develop children's interest and build children's confidence in their talent, Mitchell et al.'s (2012) study provided chances for refugee parents to express their opinions about, and aspirations for, their children's preschool. By expressing their aspirations and desires, the minority community could feel empowered, validated and more importantly, that their own cultural knowledge is sustained, and, they could sense that they also belong to that community. The study argues "A good early childhood service would be a place where immigrant parents felt a sense of belonging, that this was this was their place where they could experience a sense

of community” (Mitchell et al., 2012, p.102). Similarly, a sense of belonging could also be felt by other minority groups of parents if they are welcomed warmly by educator or service providers. Additionally, Moll et al.'s (1992) study conveys different aspects that can be learned from households and how they can be understood through consideration of the political and economic context.

2.7 Challenges and Possibilities in Discovering Family Funds of Knowledge

The nature of everyday living in communities is complex. Some ways of living and sources that exist in communities may be seen by educators as challenges, while others could become a source of knowledge for education development for children. One aspect that challenges educators in searching for knowledge is social exclusion. Moll et al. (1992), Adair and Tobin (2008) and Boag-Munroe et al. (2012) showed that social exclusion is experienced by ethnic minority groups, for example, because these people have little opportunity to connect with school. Minority people may not have the self-confidence or courage to approach their children's school or they are seen by teachers as hard to reach. The authors suggested that it is important for educators to build a relationship that is based on mutual trust. If trust between educators and parents is lost, the commitment for the cooperation will diminish (Mahmood, 2013). Importantly, service providers and educators should listen more to families rather than simply provide information, and be aware of how to respond to behaviour. Adair et al. (2008) concluded that easy communication, teachers' trust in parents and parents' confidence that the teachers understand and respect parents' beliefs, could support children to do better academically.

González, Moll and Amanti (2005) also asserted that within the effort to understand what happens in a household, it is important for teachers to have a specific purpose, for example, child rearing practices. Without that purpose, it is difficult to understand everyday living in a household that is complex. The three studies analysed here, Moll et al., (1992); Cooper et al., (2013); Mitchell et al., (2012) could serve as examples of having a specific purpose of finding out about funds of knowledge. These studies have different purposes, such as seeking to understand families' working history and the social life of students' families,

identifying children's interests, and parents' perspectives and desire for early childhood setting. Having these purposes, the teacher researchers could integrate their findings into everyday teaching, leading to the creation of a responsive learning environment.

Another obstacle is timing for parents and teacher meetings. Many working parents find it hard to connect with their children's schools because of having a demanding working schedule (Avis, Bulman & Leighton 2007; Brackertz, 2007b; Coe et al., 2008; Korfmacher et al., 2008, as cited in Boag-Munroe et al., 2012, p. 127). Mahmood (2013) stated that the timing obstacle might be more commonly a problem for lower income parents. This makes sense in many ways, for example, these parents must work long hours to earn enough money to be able to sustain their families. To solve these kinds of problems, it is essential for educators to match time availability for parents and create a programme that is responsive to their needs (Korfmacher et al., 2008). On the other hand, there are always parents who are reluctant to cooperate due to their lack of understanding toward their children's learning (Mahmood, 2013).

To sum up, the adversities and solutions that are described and offered in this section are some of the stand out realities faced by early childhood programmes. This suggests that there are still other difficulties to overcome; however, educators and their institution should assume more professional responsibility to find different ways to maintain a healthy and sustainable relationship with families, more importantly with minority families (Crozier & Davies, 2007).

2.8 Implications of Funds of Knowledge Approach for Pedagogy

Recognising funds of knowledge in families and the community can enhance teachers' understanding of the knowledge and skill of their students' family and community. Although teachers may be familiar with their student's communities, every family has their own way of life and history, and might also possess different physical attributes and backgrounds. Therefore, seeking to understand family patterns of life and their attributes can lead to the creation of a learning process that can be suited to a child's way of learning and can extend children's prior knowledge. Thomson (2002) suggested that educators in the early childhood

setting can build on their teaching from any practical abilities or expertise that the children may carry from their family and community.

In addition, getting to know students' stories teachers can apply a responsive method of teaching that could allow educators and students to learn from each other (Hansen, 1997, p.3, as cited in Souto-Manning & Mitchell, 2009). In early childhood settings, learning from each other could reinforce and clarify educators' knowledge as well as creating comfortability for students.

Approaching the family and community is not only about learning what they have but also about building an authentic home school relationship. Cooper et al. (2013) argue that "sensitivity and long-term connections and relationship and theoretical frameworks within which to view children's interest and learning can assist teachers to learn about diverse children's family in appropriate and in authentic ways" (p. 10). In the daily teaching and learning processes, an authentic relationship can be established through teachers listening to parents and children, observation, and a sustained collaboration with parents in assisting their students learning progress. It is highly recommended that parents have direct involvement in their children's preschool to foster co-operation and communication with teachers to achieve maximum learning outcomes. Whalley & Pen Green Centre Team (2001) stated that "parents and early years' professional educators need to work closely together if we are to provide the optimum opportunities to learn and develop" (p. 74). This concept will be explored further in the following section.

2.9 Importance of Engaging Parents in Their Children's Early Years Learning Settings

In the environment of learning for preschool children, parent's participation can have a significant impact. The most common ways that parents and teachers collaborate is through volunteering in school activities and major events, giving financial support, and resources to support the school curriculum. Lueder (2011) observed that if schools continue with this model, it will continue to limit the involvement of hard to reach families. This suggests that parents' participation should be beyond the traditional model and that there should be more participation in everyday learning activities rather than only the traditional activities.

There are different advantages in having parents engage in daily learning activities. For example, one main advantage is that it has been discovered that direct involvement can substantially and directly impact students, parents, and teachers (Whalley & Pen Green Centre Team, 2001). In their action research on recognising the role of the mother and father as the first educators for children, Whalley & Pen Green Centre Team (2001) revealed that with the parent's and teacher's close cooperation, children could gain a sense of continuity, and create a trusting and secure environment was created where children could learn and develop.

Drummond et al., (2004); Boag Monroe et al., (2012) suggested that schools and their teachers should be committed to building communication and also suggested that during the learning period at school, teachers should be constantly communicating with parents on what teachers can do, so parents could be more involved in children's learning activities. This suggestion could also mean that starting from the initial period of schooling teachers should be aware of their responsibility to maintain communication with parents so parents are encouraged to be willing involved in their children learning activities.

One way of ensuring parents' engagement is effective is that it is also crucial for teachers and school to be aware that not every parent has a good understanding of the benefit of their constant involvement to their children' education. Because of the lack of understanding, or unfamiliarity with education, parents tend to place their trust completely in teachers to teach their children, so do not see that school is a place for them to be involved. (Mahmood, 2013; Drummond et al., 2004). Therefore, within the execution of responsibility to connect with parents, rather than setting higher expectation from parents or assuming that parents should know their responsibility to assist, teachers should offer opportunities and encourage parents to take part in school learning. There are always differences and gaps in qualities of assistance from parents to their families due to the lack of knowledge on how to support their family. In this case, school is a proper institution to provide more understanding for parents when their children are enrolled in the school. Anders et al. (2012) recommended that providing training for parents and

improving parents and schools' partnership could be an essential programme to offer.

Another benefit from engaging parents directly in preschool is that children can learn joyfully, feeling cared for and encounter responsive learning guidance from both parents and teachers. But the involvement of parents in the pre-school should be welcomed in the first place, and both parents and teachers should have the belief that the direct involvement will have a positive impact on children's development. Harris et al. (2009) highlighted that any attempt to involve teachers, families, and communities should originate in building a respectful relationship which must be intentional and consistent.

A further advantage of having parents and teachers efficiently helping children is that students can experience a richer learning opportunity (Whalley & Pen Green Centre Team, 2001). The richer opportunity can be sensed from the availability of important people, both parents, and teachers, in the children's school to help in stimulating discovery through close and purposeful involvement in the children's activity in and out of class. Harris et al. (2009) reported that children whose parents are engaged in their school are more likely to do well at school, have higher self-confidence, and they are likely to succeed in higher levels of education. Drummond et al., (2004) also noted that when schools promote activities that involve all parents, it would be most beneficial for young children and this can also be an excellent strategy to help disadvantaged children to start school with more academic skills and maintain their educational achievement.

Additionally, because Whalley & Pen Green Centre Team (2001) were also conducting discussions between the parents and staff for children in a nursery, they came to realize that these discussions also increased parents' understanding about their children, and the staff also developed an understanding about the children's home learning opportunities. Besides contributing to children's learning, this understanding also makes it easier for adults to work with children. Most importantly, it increases the quality of parent-teacher collaborations. Both parents and teachers can have confidence in each other and have mutual respect. A positive relationship enables teachers to acquire an understanding of the different knowledge that a family has that can be used to improve learning for

children. Because as well as from school teaching, children's understanding also evolves within their family and community. Therefore, an innovative and progressive education demands that professional educators should seek to understand and integrate knowledge from society into a pedagogical environment.

This chapter has discussed various relevant theories that highlight the roles of social activities in children's development, including the facilitation of thinking, the influences of the relationship between various direct and indirect environments that the children live in, and the specific skills gained from working alongside adults. These theories also had a grounding in numerous studies, of which some were presented. The findings of the studies cited here demonstrated that family and community knowledge, as well as effective cooperation between parents and teachers, are crucial sources for children's academic and social development. Lastly, in approaching the exploration of knowledge in the family and community, it is important to understand that every culture has their unique perspectives, beliefs and values, ways of living and that these differences are alive. Therefore, it is highly recommended that educators be considerate of the situation of each family, their strengths and weaknesses and above all, to continue to learn from families and their communities.

CHAPTER III: RESEARCH METHODOLOGY

3.1 Introduction

This chapter will present the theoretical framework that guides the research, the approaches used to collect data, and the steps taken to analyse the collected data. Before discussing the main procedures used in the study, I will provide a brief overview of the concepts that guide the early years' pedagogy in Timor-Leste and how this research came about. One of the main principles within Timor-Leste's preschool curriculum is that "students are unique and therefore teachers should provide opportunity for students to learn based on their individual capacity and knowledge" (Ministry of Education Timor Leste, 2014, p. 4). This principle recognizes that students are different, capable and knowledgeable individuals and relates to the value of teachers identifying students' funds of knowledge. Funds of knowledge refers to "historically accumulated and culturally developed bodies of knowledge and skills essential for household or individual functioning and wellbeing" (Moll et al., 1992, p. 134). Drawing from both the principle and idea of funds of knowledge, I realized that my work experience in the early childhood education sector in Timor had shown me that Timorese families hold essential sources of knowledge. This was evident through the informal conversations and interactions with parents that I experienced in my work as a mentor for preschool programmes across several districts in Timor-Leste. Families have high expectations, aspirations, a variety of skills and other forms of knowledge that could make an essential contribution to children's learning progress. This realization then led to this study of the exploration of funds of knowledge held by families with preschool children in Timor-Leste.

3.2 Theoretical Framework

The theoretical framework guides the entire process of conducting research. It guides researchers on how to construct their method of approaching participants, including understanding around what to explore from the participants. According to Grant and Osanloo (2014):

...the theoretical framework is the foundation from which all

knowledge is constructed (metaphorically and literally) for a research study. It serves as the structure and support for the rationale for the study, the problem statement, the purpose, the significance, and the research questions. (p. 12)

The framework for this research is grounded in two interrelated theories. One is Vygotsky's socio-cultural theory, which asserted that cognition is a profoundly social phenomenon. "Social experience shapes the ways of thinking and interpreting the world available to individuals" (Berk et al., 1995, p.12). This concept highlights that language and communication play a major role in children's cognitive development, which then leads to a conclusion that children's knowledge development is mediated by cultural tools. The cultural tools referred to consist of the language, communication, materials and experiences that children are exposed to in their daily life. Grounded in Vygotsky's theory, John-Steiner and Mahn (1996) noted that "psychological tools are not invented by the individual in isolation. They are products of sociocultural evolution to which individuals have access by being actively engaged in the practices of their communities" (p. 193).

In relation to the early childhood environment, this socio-cultural theoretical framework encourages educators to perceive their students in a wider context. This clearly means that there is a need to consider various factors that mediate children' learning and development. For instance, educators need to place themselves inside the world of the children and their communities, especially when seeking to understand what develops children into the persons they are in terms of cognitive, social and academic abilities.

Another framework that guided this research is the "guided participation framework" from Barbara Rogoff's socio-cultural theory (Rogoff, 1990). An important emphasis in this theory is that children are more likely to gain skills from participating in socially constructed activities with the companionship of adults. This concept of perceiving how a child is brought up and develops through participation in activities within their community and its culture, conveys an understanding of a child as an active learner. In addition, this framework brings greater appreciation and recognition of values that exist in every culture in daily

life. From recognizing the values, we then would be better able to see children as capable beings who find it easier to learn in a companionship approach. This framework suggests that adults and children should be working cooperatively. Instead of adults instructing the children about what to do, adults can support and guide children (Berk et al., 1995). In other words, adults and children can work side by side to allow two-way communication so that children can acquire the knowledge communicated and implement it. In the guided participatory framework, Rogoff also stated that even when there is no verbal communication, children can still learn, for example when they participate in agricultural and household work (John-Steiner et al., 1996).

Ultimately, these two theoretical frameworks have illuminated my approach as a researcher in two ways. First, they provide me with a solid understanding that has helped me to be clearer about what information I should attempt to find out about from the research participants and research settings. Considering that I am a student researcher, having these theories in my mind while conducting research enabled me to learn and have an in-depth reflection on how the pedagogical process is implemented in early childhood environments in Timor-Leste. As a result, I see this research as an entrance point in seeking to professionally undertake my future career in the early childhood sector in Timor-Leste. Secondly, these theories also affirm my belief that the Timorese community embodies various types of knowledge that need to be studied and promoted for children's learning. In my personal experience, it is still common for people in Timor-Leste to think that education and the source of knowledge is mainly generated from formal schooling, including at the preschool level. Therefore, I would say this kind of research is vital because it not only seeks to discover sources of knowledge in family and community, but can also increase the awareness of parents and teachers that they can actually utilize sources of knowledge within themselves and their community for their children's learning.

3.3 Research Questions

This research was guided by three questions.

RQ1. What funds of knowledge exist within Timorese families?

RQ2. How do Timorese families use their funds of knowledge to enhance children's learning and development?

RQ3, In what ways are family funds of knowledge welcomed and used in children's preschool?

3.4 Research settings

The research was conducted in four different preschools in four different districts in the Timor-Leste districts: Lospalos, Dili, Liquica and Baucau-Venilale. Geographically, the districts are distant from each other. Lospalos and Baucau are located in the east region of Timor-Leste, Dili is the capital city and Liquica is a district in the west of Timor-Leste. The researched preschools were three public preschools and one Catholic preschool run by nuns.

3.5 Research participants

The research participants consisted of parents and preschool teachers. As the research was conducted in four different districts, the participants also were made up of four focus groups of parents, and another four focus groups of preschool teachers. Table 1 shows the number of participants in each focus group.

Table 3.1: Number of research participants in each focus group from the four districts

District	Focus Group	
	Parent (n)	Teacher (n)
Lospalos	5	2
Dili	4	6
Liquica	5	2
Bacau-Venilale	5	4
Total	19	14

3.6 Accessing the Participants

In Timor-Leste it is expected to recruit participants using a top down method of selection. Therefore, my initial meeting was with the General Director for Basic and Early Childhood Education in the Ministry of Education (MOE). Prior to the meeting, I sent him an Information Sheet about my research (Appendix B). In the meeting, I informed him of my plan for the research and talked through information written in the information sheet, and from that I was given a permission letter that allowed me to meet with every director in the early childhood department in Dili, Liquica, Lospalos and Baucau-Venilale to explain my research. With the letter, I met every director and explained my research. These occasions occurred prior to conducting the research. After all the coordination meetings, I was then able to visit every preschool where I planned to conduct the research.

By explaining my research to the preschools, I was able to gain the co-operation needed to collect data. Each meeting with the principals also involved all their teachers who also provided suggestions on how to invite parent participants. While I had invitation letters for parents, these were not needed as the principals agreed to talk to parents in school and call via phone. These verbal communications successfully brought together the parents for the research, albeit with various scheduling changes required. While I attempted to be as flexible as possible and adjust to situations as they occurred, there were times when the participants were not available at the designated times. This usually came about due to events such as government visits and commemorations. In particular, weather was a common constraint in delaying the research schedule. In contrast, access to the teacher focus groups was easier, as the teachers were all at school and organizing a common time was simple.

3.7 Ethical Considerations

In every research, researchers need to be sensible during the research process in order to avoid any issues that might arise. Mutch (2013) advises that “it is important to act ethically to protect the researched, the researchers and the credibility of the research” (p. 85). In every society, there are certain values that

need to be considered by the researcher. For example, consideration needs to be given to matters of communication or even whether an individual has their own standard of self-esteem and confidentiality. Therefore, prior to undertaking the research I sought to comply with the research ethics standard in the University of Waikato. The Faculty of Education University of Waikato Research Ethics Committee examined my proposed research to ensure it was aligned to research ethics standards and was ethically acceptable during the period of the study. According to the University ethical procedures, as a researcher I must gain informed consent from my research participants so, I developed Informed Consent Sheet (Appendices F and G), which were then approved by the Ethical Committee. The Informed Consent Sheet describes my research project and participants' rights as research participants. To Ethical Committee, I also made clear social and cultural consideration that should be applied in the process of coordination and conducting the research. To ensure that I could conduct my research in ways that would that adhere to norms existing within the researched community, I assured myself I would observe the range of right attitudes toward others, for example respecting everyone's beliefs, freedom, and communicate with a proper language and discipline. In anticipation of any potential cultural issue, I set clearly in my plan that I should work collaboratively with participants to address any unexpected problem, and I would seek assistance from preschool principals if needed. Eventually, with positive collaboration, my research was conducted successfully and each of the participants was able to participate in my research.

3.8 Research Methods

This research was designed to be conducted qualitatively. But while most of the data was recorded qualitatively, a few other pieces of information were collected quantitatively, particularly the observational data. Therefore, the process of research was a mixed methodology but still under one main research design, which was qualitative. According to Mutch (2013) "a mixed methodology design can follow different approaches, for example, it can have one main design, qualitative or quantitative, but include methodologies/ methods from the other paradigms to expand or enhance data collection" (p. 125).

Using the qualitative method provided flexibility to myself as a researcher and to the research participants for allowing an in-depth exploration of the subject. Creswell (2008) noted that “In qualitative research our approach relies on general interviews or observation so that we do not restrict the view of participants” (p. 213). The qualitative research method generated a wealth of data in this study. Additionally, in this study, a quantitative method was used in observations to enable me to gather specific, meaningful information that could be compared between settings. Overall, within the mix of methodologies I employed three approaches: focus group interviews, observations, and document analysis. These are explored in the next sections.

3.8.1 Focus group interview

According to Fontana and Frey (2000), interviews are the most common and robust way to understand our fellow human beings. Indeed, through interviewing parents and teachers in this research I was able explore their funds of knowledge and get a feel of the essence of the relationships among the preschools and families. In parents’ focus group interviews, we discussed issues around family background, values, cultural activities, parents’ aspirations for their children’s learning, children’s involvement in household chores and children’s interest in everyday play (Appendix H). For teachers’ focus group interviews, we explored teachers’ understanding of their students’ prior knowledge, relationships with families and how teachers include funds of knowledge they found into pedagogical processes. Interview questions were used to guide the discussion (Appendix 10).

I used a semi-structured approach during the process of conversation with the parent and teacher focus groups. Mutch (2013) stated that the semi-structured approach with open-ended questions could help the researcher to understand in-depth the participants’ perspectives. It was noticed in the discussion of the focus groups that the flexible nature of the conversation not only helped me to learn about the participants’ opinions, but it also helped the participants to provide an equal opportunity among themselves to express their ideas. For example, some talk among the active participants would invite others who seemed hesitant to start talking during the exchange of information. As a result, the natural flow of

conversation was maintained even though some participants showed their agreement in body language rather than verbally. This practice of discussion reflects what was emphasized by Fontana et al. (2000) that focus groups could be conducted in different ways depending on the purpose of interview. Finally, so as to avoid missing out on minor points from the discussion, all the information was audio recorded.

3.8.2 Observations

In addition to the interviews, I conducted observations during the period when I was present in the field. Creswell (2008) said that observation is a way of collecting first-hand information, as the researcher can observe the actual process including directly studying the individual's behaviours. Similarly, Cohen, Manion and Morrison (2011) stated that “observation offers an investigator an opportunity to gather “live” data from naturally occurring social situations” (p. 456). The observation in the preschools enabled me to directly witness the interaction between parents and teachers, as well as observe parent engagement in their children’s learning. The engagement included supporting children by bringing resources to preschool, preparing resources, showing children how to use resources, talking and reading to children. These types of information were systematically recorded using events sampling (Appendix I).

Event sampling helped to focus on significant categories related to the topic of engagement rather than taking random notes. In addition, event sampling helped me to see the consistency of behaviours or attitudes every day in preschool. By using similar categories in the event sampling form to observe each preschool, I was able to make comparisons between them.

The observation was around three to four hours in each of four days. I started each observation from the morning drop off (8.00-8.30 am) until pick up time (11.00 am). However, due to transportation difficulties in accessing one preschool, I was not able to observe in that preschool from the morning drop offs. In addition to observing and compiling, I took some photographs of activities in the preschool. The photographs were taken purposefully, for example, I would take photographs if activities were related to funds of knowledge demonstration, for instance,

learning resources made by parents, parents' engagement in class and voluntary activities in a regular daily basis.

3.8.3 Document review

In qualitative studies, documentation is another valuable source as the records come from the language and words of the participant (Creswell, 2008). Therefore, it was planned that data would also be collected in this way, especially the minutes of any parent-teacher meetings, any available guidelines for collaboration, journals about children's activity that might include parents, and any additional relevant documents. I was also hoping to search for documented quality and contextual practices of teacher and parent collaborations which could serve as exemplars for other preschools across the country. However, these types of document were sparse in the participant preschools, and the only other documents related mainly to administration; for example, visitor books, records of financial contribution from parents and a record of teacher schedules. There were children's folders, but they mostly contained the students' work in class. Therefore, unfortunately no documents relevant for the research topic were found and analysed.

3.9 Data Analysis

Data analysis was the main step following data collection. In this process, I started organizing the data based on the types of data collected such as interviews, observation and documentation. During the analysis of the interview data, I followed Mason's (2002, p. 149, as cited in Basit, 2010) perspectives on reading literally and interpretively. Mason stated that the researcher will interpret from words and language the sequence of interaction and the form of the structure of dialogue. For the interview data, I first transcribed all of the information separately for each focus group, and followed up with a preliminary read-through which led me to allocate the corresponding responses to every interview question. Most of the conversations in the focus group interview were aligned to each interview question, but since the conversation flowed naturally, some of the responses to prior questions would emerge at the end of the conversation, so the allocation of information in this phase was crucial. Because the raw data was in

Tetum, I also translated them into English while properly allocating the transcripts under each interview question. During this process, I also did some data reduction when allocating the necessary information.

The next process was rereading and combining information from every focus group into one form of data. Since the participants were teachers and parents, the information was gathered into two forms: parent information and teacher information. This information was then coded and categorized into themes that were relevant to each research question. According to Braun and Clarke (2006) “thematic analysis is an approach in identifying, analyzing and reporting patterns (themes) within data in a flexible way” (p. 79). As a result, I employed this concept while analysing and allocating data to significant themes.

The analysis of the observation data was done quantitatively. This was because the data was recorded using numbers matching the categories displayed in the event sampling form. The recorded event sampling was in the form of tables but I transferred them into graphs which made the data easier to analyse. As to the specific themes related to observations of the parent and teacher interactions and parent engagement, their conclusions are allocated under the parent engagement theme in the findings chapter.

Finally, as there were no documents to analyse during the research, I inserted relevant pictures taken during observation into the related themes in the findings. In the following chapter, I will present the data analysed and discuss the themes that emerged.

CHAPTER IV: FINDINGS

4.1 Introduction

This chapter presents the research findings gathered from the data collected in the research. The primary findings emerged from data generated from eight focus groups interviews, made up of four groups of parents and four groups of teachers. In addition to the focus group interviews, field observations and an analysis of process documentation was also employed during the research. Three research questions were chosen for this research.

RQ1. What funds of knowledge exist in Timorese families?

RQ2. How do Timorese families use their funds of knowledge to enhance children's learning and development?

RQ3. In what ways are these family funds of knowledge welcomed and used in preschool?

These three research questions generated a wealth of information, which was then categorised into relevant themes that are explored throughout this chapter. The presentation begins by going through the data related to each research question as above, with the findings from the parents presented first, followed by the key themes identified by the teachers.

4.2 What funds of knowledge exist in Timorese families?

4.2.1 Findings of the research for parents

With this question as a guide, the parent focus group interviews revealed various funds of knowledge around the themes of the family environment and ways of nurturing children, values and cultural knowledge and the children's interest in play.

4.2.1.1 Family environment and ways of nurturing children

The parent participants in the study were of varied backgrounds. The majority do not undertake any professional work, particularly the mothers. Most are

housewives who are actively doing household chores, looking after their children at home and accompanying their children to preschool during school time. These mothers mentioned that they are satisfied with being a fulltime mother because they have plenty of time to assist their children. Although they feel satisfied, very few mothers were able to express the ways they assist their children. The majority simply said that they look after the children, but since the children are very young, most of the times they let them play freely and do whatever they want. There was a minority of housewives and employed parents who made conscious efforts to teach their children in the home and involve them in household tasks. One of the mothers said:

My children and I moved to Dili just recently since my husband had finished his study and started to work, plus we think chances for education here are better compared to the district. Therefore, I use my opportunity as fulltime mother to look after my children effectively, starting from teaching them hygiene, involving them in household chores, but not the tough ones though, and regulating their homework hour. I have six children so often I let them play together but not too much, and the same thing when they are playing with children from our neighbours.

Another employed mother also said that she would let her children play freely at home, but she would check on them and sometimes encourage them to enjoy doing things together with her.

Also, participants who are employed generally trust their relatives and parents who live with them in the same household to accompany their children to preschool.

Another large environment that these participants have access to is the neighbours. Almost all parents said that their children always play with other children from their neighbourhood. Although sometimes the children were not allowed to play, children nevertheless insisted. Children tended to play outside and run around with their friends. These parents also asserted that due to playing together with a variety of children, their children are content and learn to

socialize. But on the other hand, they imitate many bad words. In this case, a few parents suggested that it is vital to always advise children not to imitate bad behaviours through clearly explaining what is right and wrong. A father said:

It is very hard to avoid children playing together because we are living in a large community; people have different thoughts and perspectives so if we are being restrictive, we would be seen as big-headed people.

The regular condition of the environment that parents revealed, needs a very thoughtful method to conclude what knowledge the family may possess. It was found that most families provide extensive freedom to their children. However, at some points this could become uncontrolled. A few families, on the other hand, appeared to be sensitive around setting their children free, but maintained set routines. These parents are very clear about their children's activities and set clear expectations for their children compared to the majority of participants.

These two contradictory patterns in the environment uncovered some important points. One of these is that there are still an extensive number of parents who still need more awareness in raising their children, particularly around supporting them to confidently execute their parenting roles of encouraging children to take part in household chores, which will instil them with a sense of supporting each other and independence. Despite this, the parents, who seemed to lack parenting knowledge, have time and energy which could be an advantage in involving them effectively in the education of their children. A second aspect worth highlighting here is that although there were only a small number of parents who were able to express effective patterns to nourish their children, their approach and ideas are significant. This could be seen from their commitment, clear implementation, and expectations for their children. As a consequence, this management style could set an excellent example for the other parents. Another vital point is that trust is a stand out feature that sustains caring for children. This characteristic exists especially within extended families. For example, parents trusting their relatives to accompany their children to school, and to even take care of them at home. It could be argued that this trust is nourished because these parents may perhaps have only a limited amount of time to care for their children, and are therefore

forced to a degree to trust their relatives. But whatever the reason, the fundamental idea is that this trust exists.

Drawing from the points described above, it could be concluded that the noticeable sources of knowledge according to the home environment and attitudes of the parents are:

- a. A significant sense of encouraging freedom for children;
- b. Commitment to developing children's independence;
- c. Trust;
- d. Effectively managing children's routines; and
- e. Time or availability. This is most likely not funds of knowledge, but sufficient time is an important aspect in allowing educators and parents to communicate and build relationships. In turn, such communication could ultimately increase teachers' understanding of what parents possess. During school time and daily life, the parents and guardians seem to be constantly present.

However, these funds of knowledge do not exist equally in each family. For example, it is obvious that some families are more committed than others in developing their children.

4.2.1.2 Values and cultural knowledge

Respecting one another in the family and community was the value most highlighted during the discussion in the parent focus groups. In more detail, one participant described that:

Respect should be demonstrated in everyday life and it is extremely important to teach our children to be able to greet other people and adults in the morning, respecting whoever they meet, feeling gratitude or knowing how to thank people.

The second most emphasized value was that of valuing religion and the indigenous culture. For instance, attending mass at church every Sunday and being involved in a variety of cultural ceremonies that everyone has in their kinship lines, typically held in an *Uma Lisan* (sacred house).

In addition, when it comes to involvement of the children in cultural ceremonies, a large group of participants admitted that they would likely not involve their children. The common reason was the distance to the *Uma Lisan*, which is usually located in the villages. However, the parents said they endeavoured to attend important cultural ceremonies in the *Uma Lisan* as their presence in the *Uma Lisan* is believed to be essential for the wellbeing of their family.

In addition to the indigenous traditional ceremonies, there are other ceremonies that are often held in every family such as weddings, birthdays, and family gatherings to contribute to a dowry. During these kinds of events, the children are likely to be involved. These events were recognized by many parents as an opportunity for their children to know their wider bloodlines. One participant described this by saying:

In our extended family, we usually support each other, therefore when one of our members will get married or would give dowry to the bride, we would come together to contribute some money. At those moments, I like to bring my children, because apart from providing the chance for them to meet their cousins or relatives, they can see how our family come together, talk and support each other. I want them to experience seeing it, so they can learn.

Another participant also shared some of her culture within her family:

My husband is from Ermera, so we have a lot of cultural activities, therefore my husband always brings my children to assist in those cultural ceremonies. Other than assisting in ceremonies at *Uma Lisan*, we have a lot of coffee so twice a year we would harvest the coffee and my husband would bring my children and involve them in harvesting the coffee. My husband would like to show our

children about how they can harvest coffee and that they also grow up with coffee.

All participants share similar values in their family life, whether it is in attitudes or beliefs. These values are likely to represent a fundamental principle that Timorese people hold, and are probably applicable and similarly demanding in the worldwide society.

Furthermore, it appears that while these participants were faithful to their *Uma Lisan*, interestingly, the young children were not given that much opportunity to experience events in the *Uma Lisan*. Even though it seems that children would perhaps not learn the core of indigenous knowledge at their young age, they can still learn about their identity as a family member from other gatherings.

4.2.1.3 Children's interest to play and practice in household chores

Playing and household chores are activities that mostly happen in young life. Play is a large part of children's activities, but children are also surrounded by regular activities at home every day. In terms of play, the young children of all participants had common choices with what they are interested in playing. They love to play with dolls, balls, doing dramatic play and playing outside the house. In each focus group, at least one participant commented that their children like to do dramatic play, and interestingly the most common play topic is playing at teaching in a classroom. For example, one participant described that:

My child likes to play the roles of teachers. Almost every day at home, she would call her siblings and neighbours' children to sit still and listen to her talking or teaching ABC and 1, 2, 3. Everyone should listen while she is teaching otherwise she would be angry, she would do exactly like her teacher.

Using technologies is one of the largest attractors. This includes watching television and playing video games.

My child, who is now in this preschool is obsessed with games on phone very much; he would sit forever playing games and never reply when we call.

Another participant said:

When the remote control is at my daughter's hand, you cannot change the programme; she watches the cartoon again, until you have to come up with all kinds of reasons only to take the remote, and, of course, tell her to go and play with other stuff.

When it comes to household chores, a greater number of participants stated that their preschool children are still very young to be asked to do household chores.

One participant asserted:

We would love our children to undertake some household chores but they clearly would not be able, so we do not force it onto them.

All the other participants seemed to agree with her. In regard to simple tasks, they simply said the children's work is to play and admitted that it is very hard to involve the children in doing work at home as the children would not listen.

In contrast, a few participants from the four focus groups revealed that their youngest were always there to help out at home without the parent needing to tell them. Normally their children will help in cleaning the floor, washing dishes, folding clothes, washing clothes, and in many cases they enjoy doing it. These participants affirmed that if the children found it enjoyable to do these tasks, then they would teach them to do it. These parents found it is essential for children to practice step by step, and to accustom the children with home activities from a young age. One parent said,

You have to teach children from the younger age, so they can start learning how to be independent because we will never live with them forever As we have garden nearby, all of my children always help me water the plants. Also, because our drinking water is far, they often help me take the drinking water.

Another participant highlighted:

I have two children and they love helping their grandparents feeding our domestic animals, such as pigs and chickens. Every

morning they would feed the chicken first and they would collect watery rose apples to feed the pigs afterwards.

Overall, while the findings illustrate clearly what children are exposed to, it seems that the parents' understanding and intervention play an important role in the practice. In terms of play, many of the children have materials to play with and their desire to play is at a maximum, which is not surprising as it is in their nature to play and explore. Many children appear to develop more ability during social dramatic plays. In addition, games and cartoons clearly emerged as sources of learning. Despite limited encouragement to engage children in household work, some of the children enjoyed helping. These sources would definitely teach their children in one way or another, but it seems that skill for encouragement and necessary intervention is needed.

4.2.2 Findings of the research from teachers' focus groups

Data from the teachers' focus group interviews uncovered sources of knowledge. These are categorised in two central themes: approaches to gathering children's information and types of information usually collected; and the visible knowledge that students bring from home. These themes are explored in the following sections.

4.2.2.1 Approaches to gathering children's information and types of information usually collected

It has been widely recognized that collecting more information from the student's family is a fundamental aspect that allows teachers to understand the life of their students on a deeper level. In Timor-Leste, this research found an interesting reality that shows to what extent the work of the teachers reflected this concept. Generally, the teacher participants are aware of the benefit of collecting children's information and in knowing the wider family of their students. Every teacher revealed that they gathered information about the family at the beginning of the year or during enrolment time. It rarely happened on a daily basis. Most teachers think that it is enough to collect the children's information from when they start, as the children's identity is recorded in the form that is prepared by the MOE (the form mainly records the children's personal identity and basic abilities - what

children may find difficult to do by themselves, for example whether the children can wash or change clothes independently). In addition to accumulating information in the beginning of the school year, teachers usually inform parents about any school fees, activities that need parent contribution and so on. During the entire focus group discussion, the teachers seemed to focus more on what parents should contribute to school.

In preschools, there are schedules for a trimestral meeting, but the implementation depends on whether the school has important agenda items to talk about, as even if they have the meeting, many parents would not participate. It was a common view that most parents who are active would continually come, but the rest who never appear did not bother to come.

Some teachers said confidently that sometimes it is unnecessary to talk to parents on a daily basis. Only in some cases such as when the children are absent from class, will the teacher investigate what happened.

It is fascinating that only a handful of teachers out of the four focus groups find it easy to communicate almost every day. These teachers demonstrate they have a level of comfort in talking to the parents about the children that they share. For example, one teacher said:

Nina's mom (pseudonym) always talks to me when she comes to pick up her child, or she will call me if she would be late to pick up her child. She is very comfortable talking to us. One day she came and let us know that Nina's attitude lately is unmanageable, for example she is confronting a lot before coming to school, she doesn't want to take a shower or have breakfast, so her mom asked me to explain to her that those attitudes are not good. Since then, every day I would talk to her about that and now her mom said she is changing. Additionally, a few other parents also just willingly talked to us or called up via phone to express their satisfaction with what their children learn and, after that, they would suggest what they think their children should learn.

A teacher from another group also shared:

I talk sometimes with parents here at school, sometimes when I meet them on my home they would tell me about their children, some often say that at home they usually ask their children what they learn from school and usually children would repeat some activities that they learn in school at home. For example, they would sing, write and count.

The experiences shared in this section show that most teachers have a limited understanding of the context of the information that should be sought from parents about their children. They are inclined to think that information is only about the biography of the children, and they relied primarily on the information on the form. Only a handful of teachers said that they often talk to parents during the period of teaching and learning, and shared information about the children's learning. However, analysing teachers' quotations presented above it could be concluded that parents' willingness to talk was a significant factor in establishing conversations with teachers. In the cases highlighted, instead of seeking information, the teachers tended to wait for information from the parents. From observing parents' willingness, it can be said that those parents who are always willing to talk to the teacher seem to be more aware of the effectiveness and sustainability of learning from home to school and vice versa (Interestingly, the same story was shared by Nina's mom in the parents' discussion group). In conclusion, it seems that the yearly meeting is the main time for collecting information, and the next popular time is during the trimestral. Daily communication was also one way to share children's information, and that was more likely to expose information that has a direct impact on the children's learning progress. Unfortunately, this type of approach was the least common. In most cases, the teachers would only get the minimum of information, and most topics of conversation were only focused on lessons at school, instead of other home interests and the knowledge that parents can contribute to the preschool.

4.2.2.2 Observable knowledge that children carry from home

Prior to attending preschool, children spend their very first years at home and in their community. As a result, children will have developed some prior knowledge. To ensure an understanding of the concept of family knowledge, participants in the research were asked to recall what they have discovered about their students. The most common findings were around social skills, as several children came to school with skills such as helping each other, sharing, and good positive communication. Some teachers described the children in their class as very happy to help their peers, for example, they like to help in drawing. Those children are always excited to show others how to draw, but the teachers also limit this assistance in some cases. This is because the teachers think that if the other children constantly show others how to draw, then the receiver would not learn and will instead develop a dependent attitude or inclination to lean on their peers.

The second most visible abilities that teachers found in their students were literacy and numeracy. Teachers shared that, often in the beginning of the school year, they encounter some children who already know the alphabet and numbers. Therefore, some teachers shared they would often ask those children who can recite the alphabet or count to help their peers. A popular way for children to demonstrate this knowledge was to read out loud to other children in front of the class.

4.2.2.3 Aspects that limit teachers' understanding and initiative to discover funds of knowledge

Discussions and observations within the research period showed that teachers were aware of parents' knowledge and that its value could be usefulness for their children's learning but teachers' lack of understanding of the benefit held them back from finding and utilizing it. The reasons behind this were various. Some predominant causes were found, such as, first, teachers focused mostly on the learning materials that have been written in the preschool sessions plan provided by MOE. The majority of the teachers did not see the flexibility within that system because, according to them, they were instructed and supervised to follow every detail set out in the document. Although in reality, teachers have made

some efforts to involve parents' funds of knowledge, it was at a minimum level, because it was only found in one preschool.

The second cause was that strategies to work with parents were not widely known or implemented. Even if teachers were trained in these, there was not any serious implementation. Although the Curriculum highlighted that parents have an important role in the children's education, many teachers found it hard to work with parents or even did not have a genuine encouragement to approach parents. It seems that most of the professional training provided for teachers emphasized using materials as a medium to teach, and less about using values, skills and knowledge from a parent. Therefore, teachers seemed to focus more on what to teach rather than thinking of why they should be teaching in that way or finding value and enjoyment in teaching.

The other main reason was that teachers still lack self-confidence as educators, which indirectly distracts from the excellent execution of their role and responsibility. Low confidence causes teachers to work only in their comfort zone; for example, some teachers stated that because it was hard for them to work with parents, they would try their best to find additional learning materials by themselves. Also, the lack of confidence, competency and self-value led teachers to make kinds of negative assumptions before any attempt to work with parents, especially the majority who they regarded as reluctant parents. One teacher said that:

... umm... we did not attempt to ask parents if they can help us with anything because some parents never understand us. Sometimes they would claim that it is our role to teach their children, they have paid the school fee. So, if there was a need we should talk through the parents' association structure, we could not ask parents without talking in the meeting.

4.3 How do Timorese families use their funds of knowledge to enhance children's' learning and development?

4.3.1 Findings of the research from parents' focus groups

The second research question was about how Timorese families use their funds of knowledge to enhance their children's learning and development. Three themes were developed from the parents' interviews in response to this question. The first theme is the expectation of the parents about the skills and knowledge to be nourished in their children. The second theme is parents' methods of nourishing these skills and knowledge. The final theme is the communication by parents and teachers on what they want their children to learn. For the teachers, the discussion of these questions uncovered their understanding of the way that parents encourage their children, so the theme that emerged from the teachers was how teachers gain knowledge about how families encourage their children's development and learning.

4.3.1.1 Expectations of parents about the skills and knowledge expected to be nourished in children

In the entire focus group discussion, while there were few parents who were vocal and clear on how to manage their children, all of them wanted their children to learn and develop. Their expectation perhaps comes from their experiences and testimony in life that those abilities that they seek can bring academic and social success. They identified three particular sets of skills: Literacy and maths skills; technology and language skills; and communication skills.

Literacy and maths skills

The mind-set of prioritizing literacy and mathematical skills for children seem to be popular among Timorese parents. Participants in the research were highly driven by that notion. For example, when talking about education they tended to think of reading, writing and learning maths at school. These participants emphasized their preference for their children to study hard and have a good education to gain a better future. The common reason was that they do not want

their children to be like them, and that they wanted their children to live a better life than them.

A father said:

In our time we did not have much opportunity to study more at school because of a financial problem that our parents encountered and we did not have much awareness of the benefit of education. So now we just work at whatever we can. But these days, children have to know how to read and write, so they can access more information.

A further comment was:

The purpose we bring our children to school is to learn A, B, C...to count numbers. We prefer them to be well educated and knowledgeable so they can have a better life in the future.

Technology and language skills

A second common finding is that participants wanted their children to learn technology and language. The majority of participants observed that the world was progressing so quickly, and therefore they would like their children to learn computer skills and English.

They think that when their children have those abilities they would learn much, but they are also aware that not every influence of technology is good. So, they also call out to other parents that it is extremely important for parents to assist their children.

Communication skills

Communication is another skill that a few parents want their children to be good at. A participant said that:

It is essential for children to learn good communication.

By that statement, she meant children should learn to talk in a good manner, be confident in asking questions and expressing their opinion.

A mother commented:

The reality today shows that children who are active, great in communication and even better if they have good attitude and also can communicate in other language, for example English, they can go to study overseas,.

4.3.1.2 Parents' ways to nourish skills and knowledge

Participants declared that they have commitment and interest to support their children's learning as much as they can. Regarding literacy, parents support children with materials to write, but not as much with materials to read. They expect to have more reading at school, but hardly any parents were able to read to their children. When asked why parents were not able to read to their children, most of parents said that they do not have reading materials. For example, some parents said they only have *Lafaek* (a magazine for children in Timor that often contains short and educative tales from Timor and children's drawings). Also, parents seem to lack awareness and ability to read to their children. This limitation did not prevent them from constantly checking what work the children brought home. Parents declared that at home they were not only checking the work, but they would continue to help children to repeat the homework on what they learned from school. Those participants whose profession was teaching were always especially active in teaching their children about literacy and counting. A participant teacher said:

Every day I have to prepare a lesson plan for my students and my child who is in the preschool is always around so I am using that moment to let her practice writing as well. I would provide her with papers and pen, so she can use these.

For technology skills, especially with computers, parents found it difficult to develop that ability in their children since their children are still young. They think children could learn this ability when they grow up. Those parents who want their children to learn English always play English music and videos for their children. They make it a priority.

4.3.1.3 Parents and teachers' communication on what they want their children to learn

A significant number of participants rarely talk to their children's teachers about what they want their children to learn. They admitted that communication often happens when they get a meeting invitation, but this tends to happen right after registration. Since it is the beginning of the school year, most of the agenda would be about school fees, uniform and school regulations. In relation to teaching and learning, they have faith in the teachers, they know that teachers have been professionally trained on what to teach, and parents recognize that teachers have attended a lengthy training. Even so, I asked them if they ever wanted to talk to teachers about what they want. In response, the most common answer was "Yes." However, as they were not invited to a formal meeting they do not feel as if they were able to talk. When queried about what other ways they could learn about their child's progress, they mentioned that they can see from the homework that is brought back. For example, one mother said:

I do not think it is good to talk to teachers regarding our children's school at any time, we should talk in the formal meetings. Teachers have a lot of work to do, which sometimes it is hard to talk to them.

This comment sounded interesting so I asked a further question:

What if you did not bring your child to school but you want to know what he learned?

She added:

I usually know from checking his homework.

In contrast, a few participants were very open minded on the topic of communication. These few participants communicate with teachers on a regular basis. They said that they discussed not only their children's literacy development, but they also informed teachers of their children's routines and how their children behave at home. A participant said:

I usually talk to teacher Maria (pseudonym) about Nina (pseudonym). We will talk about everything, from her ability to read and write, her attitude in class and what she always does at home. We would talk face-to-face most of the time, but at any moment I would call the teacher or even the nun. For example, one day my money (\$5) disappeared and I was angry and afraid at once because I knew that was not good that my children could do, so I called nun and then the nun asked and talked to her nicely, at the end she returned the money and until now she has never repeated that behaviour and I am relieved.

These findings revealed two types of parent-teacher communications. One was that parents were inclined to expect the action to establish communication to come from the teachers, otherwise they would just accept whatever their children would learn at school. This expectation obviously existed in the majority of parents. The other type was from parents who looked beyond the organised meetings. Their focus is on working towards their children's progress without any hesitation, and they would find whatever ways were needed to communicate with teachers. These patterns of connection could be noticed in the vivid detail of Nina's mother comments.

4.3.2 Findings of the research from teachers' focus group

4.3.2.1 Observing children's ability

In the daily learning process, teachers usually observe the learning ability of students in the class. When they notice that children learn quickly in reading and writing, or even where some children are found to already be knowledgeable about alphabets and counting, this is where teachers draw the conclusion that parents were encouraging their children to develop their abilities.

A teacher commented that:

In pre-school, observation is important. As preschool teachers, we observe children and how they go about learning in the early stage

of their entrance. From that we would gain understanding about children's ability, so then we know how we can help afterwards.

Another way was that teachers recognised that parents are assisting children to learn at home. This was identified by the performance of the homework activities. For example, the teacher would write an alphabet on a piece of blank paper and tell the children to fill in the blank paper at home with the letter. Children always finish writing and bring it to class the next day. A teacher said:

A lot of parents these days want their children to read and write. Many children know how to read ABC even from the beginning of their entrance to the school.

Within this type of support, some teachers found that there were always some parents who want their children to learn quickly, especially to read and write. When parents saw that the children were constantly playing they would argue and complain, which at some point required the teachers to explain and assure them that their children are actually learning and that they are teaching based on the lesson plan that was prepared from the National Curriculum.

4.3.2.2 Observing from parents' contribution both the physical materials and aspirations for children's learning

A few focus group teachers said that they have the confidence to work with and request any help from parents. They cited again that parents use their knowledge to develop material to support their children's learning. One teacher commented:

As you can see in our classroom we have some learning tools from parents, from that we can see clearly how those parents support their children's learning. They have a willingness to help out in school whenever the school needs this.

Additionally, the teachers noticed that many parents aspired for their children to have a better future than their parents. Therefore, sometimes the parents may request more guidance in order to help develop a child to be more proactive in learning and gaining an enthusiasm for learning.

4.3.2.3 Observing from the commitment of parents' communication with school

The aspect of communication was one way that teachers could measure a parent's encouragement to help their children to develop. Teachers observed that children from parents who are actively connecting with the school were always doing better in the class, and their learning progress was faster. Those few parents who do not hesitate to talk with teachers were very open and would always retell what their children are doing at home. A teacher said:

We [teachers and parents] sometimes talk a lot before they take their children home, here after school we would look after children before their parents come. Those parents that always talk to us, sometimes they come, they would stop their motorbikes and come and stand with us talking until their children insist on going then they would go.

4.3.2.4 Observing parents' voluntary activities

Voluntary activity was a common topic of discussion throughout every focus group. Teachers saw this as a way that parents can help to support their children's learning. The activities normally offered by parents were in repairing school windows and doors, building new classrooms, and assisting in preparing for any event in school.

Other than these major activities, during my observation in the field I noticed that there were daily voluntary acts that only appeared in very few interviews of the focus groups. For example, at least one or two parents always helped children to wash their hands before or after eating, helped in serving food for children, looked after children when playing outside, and were in class helping out with drawings (see Figure 4.1).



Figure 4.1: Mothers assisting in writing and drawing (2017)

During a week of field observation in one preschool, I found that two parents were always there during school time. Sometimes, they would stand outside and observe their children work but other times they would help in class. Of course, they were not replacing the role of the teachers, but their assistance seemed to reinforce the role of the teacher and enable more adult interaction with children.



Figure 4.2: A mother about to mop the floor (left) and the small room in the end of the school building built by parents (2017)

In Figure 4.2, the left picture shows a mother who was about to clean and mop the veranda of a class. I observed that she and other parents clean almost every day

without instruction. The right picture shows the room (room at the end of the building) that was built by parents. This room is now used as a classroom for the very young students (ages 3 to 4).

4.4 In what ways are family funds of knowledge welcomed and used in children's preschool?

Parent interviews regarding this last question generated findings that cover ways of welcoming family knowledge, the types of educational materials used by parents, and parent perspectives on involvement, aspirations for preschool. In addition to the main findings from parents' interview in this section, the result of observations about parents and caregivers' engagement is presented. Finally, data from the teachers' interviews that revealed ways that the family funds of knowledge are welcomed and used in children's preschool are also presented.

4.4.1 Findings from parents' focus groups

4.4.1.1 Ways of welcoming family knowledge and types of educational materials from parents

Those parents whose children have been in pre-school for more than a year said that only in big events would the school ask them to help, for example, by preparing food, cleaning, decorating and other physical activities. For the other times, parents only bring their children to school every day and sit around waiting for their children to finish class.

However, in one focus group, most of the participants said that the teachers and nuns always ask them to help at school, both in the everyday process of learning and in big events at school. They said that their teachers would ask them to bring any materials related to topics that their children would learn. They were excited to provide materials. Some materials were displayed in the classrooms, particularly materials covering the learning topics of mathematics and culture.



Figure 4.3: Mathematical resources from parents (2017)

These pictures show the medium for learning mathematics that were made by parents. Parents made different shapes with their children's name on them. Children can learn to count, measure, weight, learn the shapes, colours and more.



Figure 4.4: Cultural artefacts made by parents (2017)

The materials in the two images in Figure 4.4 are also made by parents. They represent several famous cultural artefacts of Timor-Leste. The left picture shows *belak* the circles, *surik* traditional samurai and Kabuki traditional crown (Note: the artefacts displayed were crafted only for learning and are not real ones).

The right images are a crocodile (made of stones), traditional containers, and a traditional hat. The crocodile is a symbol of the land of Timor-Leste, especially the geographical shape of the land. There is a legend telling why Timor-Leste's land is shaped like the crocodile. Timorese consider crocodiles as their ancestors (called *Avo*) which should not be harmed in any way.

The container is always used in harvesting time, usually to collect coffee. The hat is often worn for protecting against the sun when working on farms, but nowadays people wear anything.

Participants commented that teachers requested these materials either in person or from the students. A mom said:

I rarely come to school, but I knew teachers and I trust my daughter when she told me that this is what teachers ask our parents to help with.

Another mother added:

As we always talk to each other [parents and teacher] when we bring our children to school, teachers are feeling comfortable to ask for help. Sometimes, when we do not come to school they would ring us and tell us about what they need.

As well as the opportunity to contribute teaching materials, these parents also voluntarily work in class when needed. A parent shared her experience:

Every time when I bring my child to school I always stay near and see what they learn and how the teacher teaches them, so sometimes when the teacher needs to go to the office or toilet for like 10 minutes, I would help look after the children's learning. I like to accompany them in drawing. These preschools always perform dances in celebrations in church, so when children train to dance I like to assist them, and sometimes teachers would ask us to join in the dance, so our children can enjoy and learn quickly because they see us and then they would dance alone, we just watch.

In general, the findings described in this part illustrate that the parents feel their knowledge is significantly welcomed through the offering of physical materials. The success of contributing their knowledge appeared to be caused by good communication, comfortability, trust and the opportunity to help out in the classroom. Unfortunately, these important qualities were not a common focus in most parent and school relationships.

4.4.1.2 Parents perspectives on their involvement and aspirations for preschool

According to the findings relating to the two previous research questions, quantitatively, a significant number of parents find it challenging to make an effort to involve themselves directly in preschool. This suggests that a greater amount of effort could be exerted to rectify this. However, interestingly, almost all of the parent participants said that the approach to their involvement was satisfying and they seem to have no suggestions for changing it.

Only one focus group was keen to tell more about how they want the school to involve more parents. These parents wanted to actively clean together every Saturday at the school and to find more strategies to include parents who were never involved in the preschool programmes or did not show any interest.

Also, these parents wanted more extracurricular activities for their children. Some parents within the group voiced concerns about their children's attitude. They observed that children are rarely calm, especially when class starts. Therefore, to solve it, the parents suggested that before class starts, the teachers should instruct those students to stand in line and enter the class in an orderly fashion. Other parents wanted their children to freely play so they can learn more.

4.4.1.3 Parents and caregivers' engagement in preschool on a daily basis

Figures 4.5, 4.6, and 4.7 illustrate the results of my observations regarding parents and caregivers' engagement. The observation were made over four days of school time, starting from around 8.30 am to 11 am.

Figure 4.5 shows the number of parents and caregivers bringing children to preschool A and being involved in various activities in preschool during the four days. In that number of days, parents and caregivers who were observed to

accompany children and stay in the preschool ranged from 15 to 22. The majority stayed outside the classroom for the entire session, such as on days two and three, 15 people stayed outside, and for days one and four there were 11 and 10 respectively. There was very limited engagement in other activities with children, for example, only one person (up to two people on day four) showed children how to use resources, sat alongside children and had some conversation with children. Finally, the number of parents having conversations with teachers ranged from one to five and there were no parents for activities such as reading to children, preparing resources, or bringing resources to the preschool.

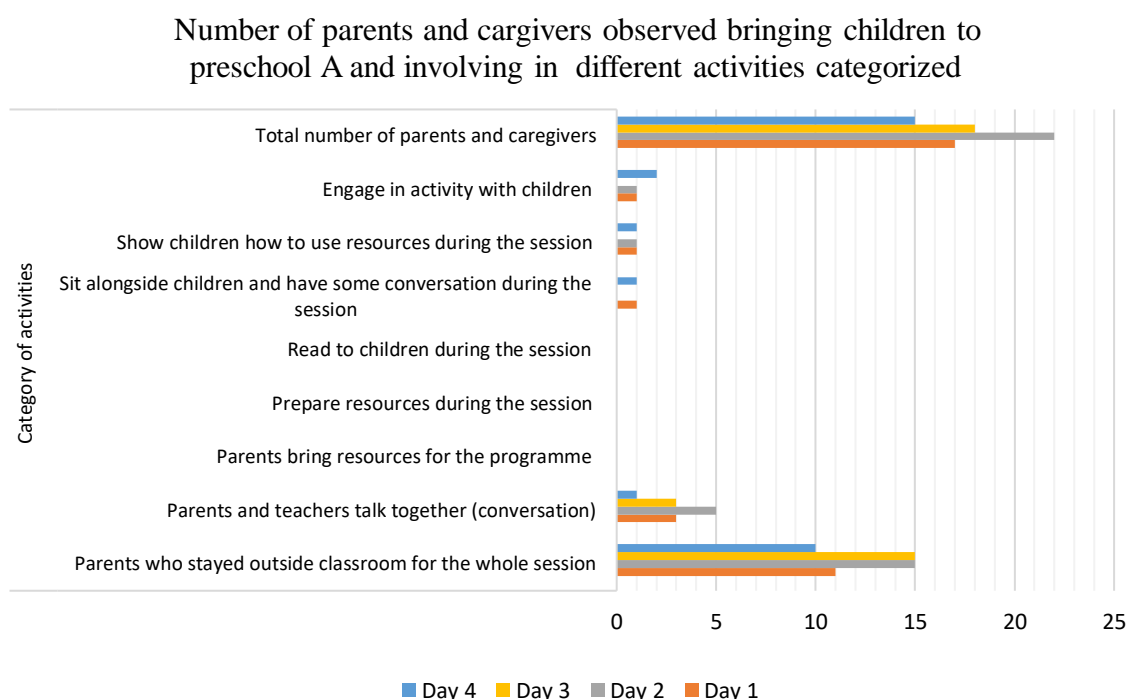


Figure 4.5: Results of observations in preschool A for four days

Figure 4.6 illustrates the number of parents and caregivers accompanying their children in preschool B and their participation in activities in four days. Parents and caregivers observed in the preschool exceeded 25 in nearly all the days. Among the total, 13 to 14 people talked to teachers on almost all the days. Additionally, during the four days, at least two to three adults showed children how to use resources, sat alongside children and had some conversation with them. Five people on almost every day were engaged in activities with children.

However, similarly to preschool A, none were noticed reading for children, bringing resources to the programme, or preparing the resources during the session.

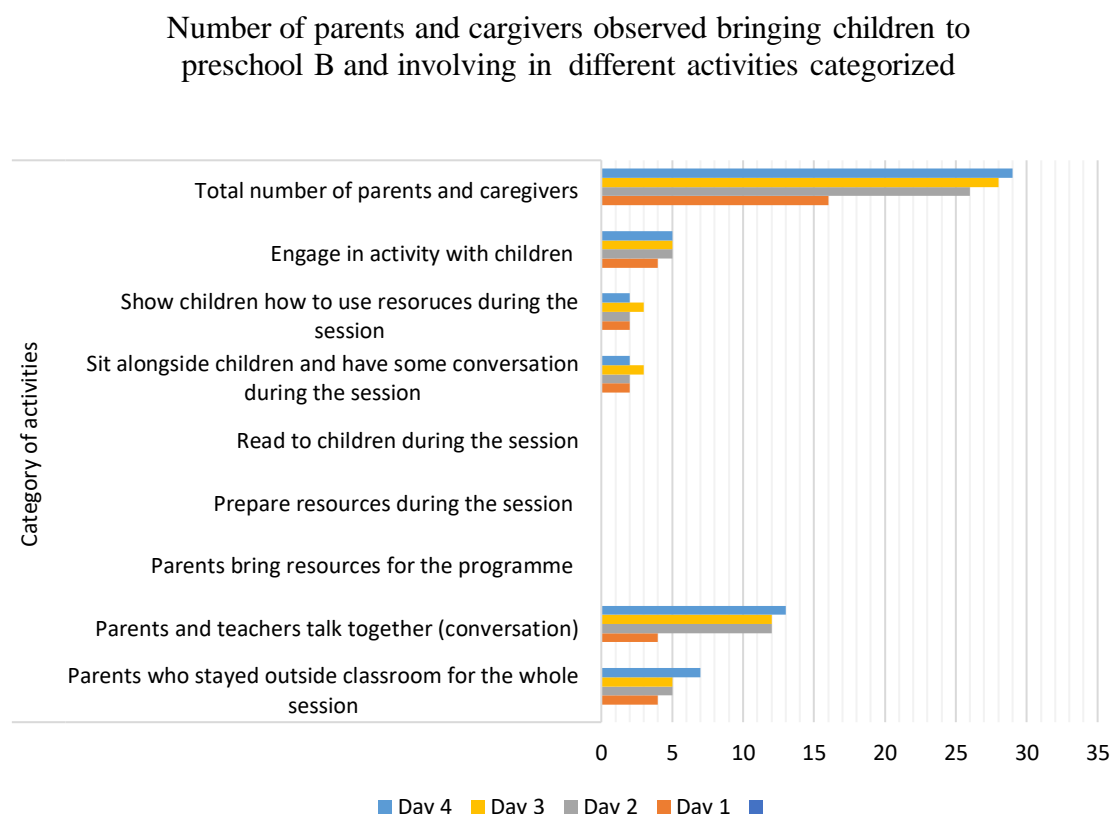


Figure 4.6: Results of observations in preschool B four days

Figure 4.7 shows the number of parents and caregivers observed bringing children to preschool C and their involvement in activities over the four days. During the days the number of adults ranged from 11 to 14. Like preschool A and B, many parents and caregivers stayed outside the classroom during the session rather than assisting children with activities. The figure shows that only on average only two adults per day were involved in activities, for instance engaging in activities with children, showing children how to use resources, and talking together with teachers. Other than that, only one and two adults in days one and four were sitting alongside children and having some conversation. In this preschool no parents were noticed to read to children during the session, prepare resources

during the session, and bring resources. Lastly, only on the fourth day were parents and caregivers engaging in children's activity.

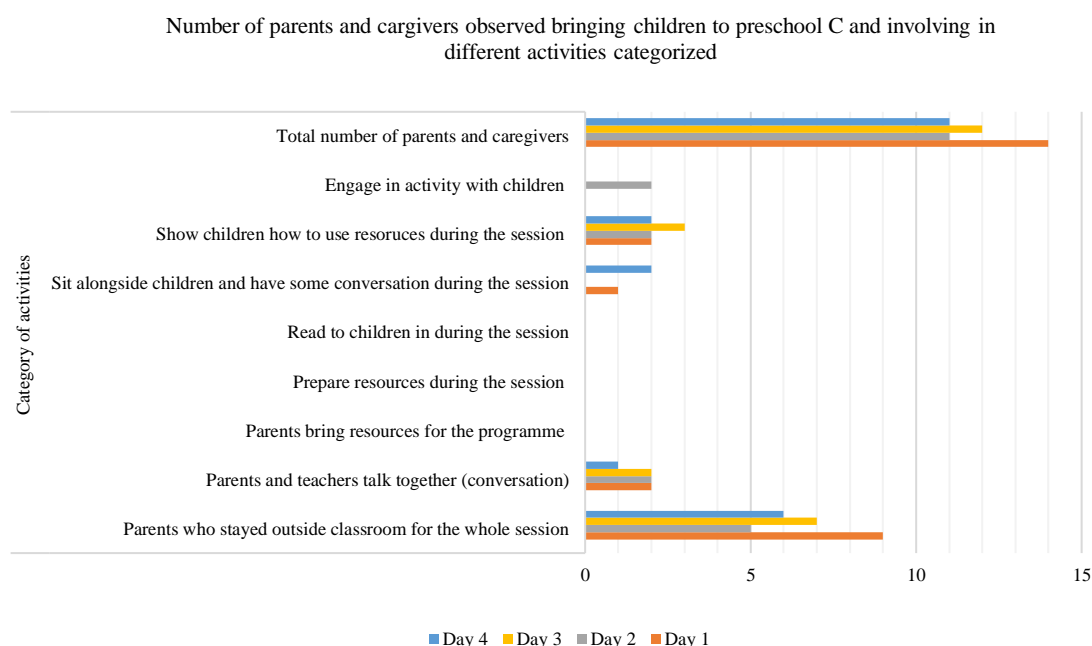


Figure 4.7: Results of observation in preschool C for four days

Figure 4.8 shows how many parent and caregivers were observed bringing children to preschool D and being involved in various activities in four days. The number of adults accompanying children in this preschool was the least among all observed preschools. In the first day there were 14 parents and caregivers, but on the remaining consecutive days the number observed was under 10 and day two had only two parents. It was also interesting that within this number of parents none were observed to be including themselves in the main activities with children, for example engaging in children's activities, showing children how to use resources, sitting alongside children and having some conversation, reading to children, preparing resources during the session, or bringing resources for the programme. Most of the adults noticed stayed outside the classroom for the whole session without talking to teachers or including themselves in any activity. Adults who talked to teachers ranged from two to five.

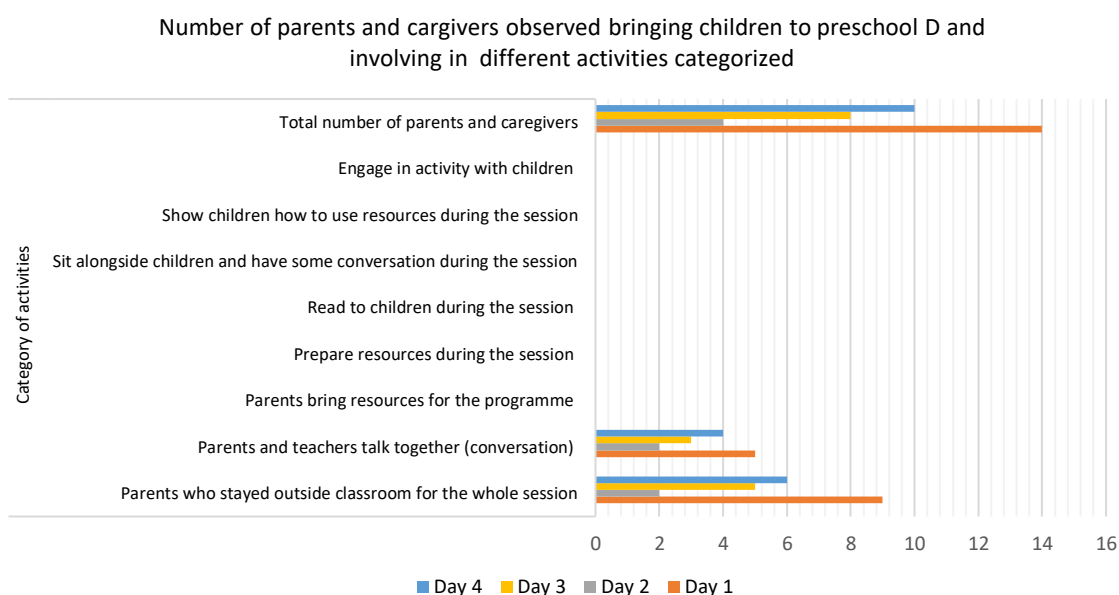


Figure 4.8: Results of observations in preschool D four days

Overall, the results of observation in Figures 4.5, 4.6, 4.7, and 4.8 show almost similar patterns of involvement from parents and caregivers despite the slight difference in numbers. In all preschools observed, staying outside the classroom was the most obvious preference. In contrast, few and, in some preschools, no parents and caregivers assisted in activities that could potentially help children to develop, specially activities related to literacy skills and guidance for children to explore learning resources displayed in classrooms. Having conversations with teachers was the second most popular activity, but it was noticed that in preschools A and C the number of adults talking together with teachers was fewer than in preschools B and D. Another surprising result was that, despite many who were talking to teachers throughout the four days in preschool D, no one was involved directly in children's activities, which distinguished the preschool from preschool A, B and C. The environment in preschools for parents and caregivers' involvement represents strengths and weaknesses that need to be considered. Otherwise the principle of working with parents would not be as effective as it could be in the early years education system.

4.4.2 Findings from teachers

4.4.2.1 In what ways are family funds of knowledge welcomed and used in children's preschool?

Before talking in detail about the ways and use of family knowledge in preschool, every teacher recognized that it is very important to involve parents in preschool. Preschool cannot function alone, it needs the parents' involvement. Therefore, teachers conveyed that whatever activities the preschool has planned, the parents should be involved. In the same way as from the findings from the parents, every teacher from each preschool recognized that they should always involve parents when they hold major events such as graduation ceremonies for children, working on the playground, and financial contributions.

Only one focus group of teachers mentioned the involvement of parents in the actual teaching and learning activities. A teacher from that focus group described that in their preparation to teach the class, they would look through every topic in the lesson plan and think of how they could ask the parents to help. The teacher said:

We are aware that many parents are busy working, but at some point we have asked for their assistance and whenever we asked them to arrange materials for teaching they were excited to do it for the preschool. Usually, we would talk to them at the times they drop off or pick up their children. Or otherwise, we would tell the children to talk to their parents because most of our children here are very good in communication. On some special occasions in preschool, if we need parents but we think it is hard to tell through children, we would pick up the phone and call parents to ask for help. Those parents that we often ask for assistance, are those parents who are very active and always feel comfortable to call us whenever they need our help, for example they would pick up their children late or they would tell us in the morning how their children behave in the morning before coming to school.

Particularly around the discussion of funds of knowledge, this teacher also started to place more value and gain a real sense of how funds of knowledge can really enhance the children's process of learning. The teachers added that:

...because I saw that in this preschool there are parents who showed their intellectual ability, I will develop a plan and schedule and then communicate with these parents to enquire whether they are possibly able to offer their ability. Actually, I have thought this for a very long time, but this time it really motivates me to implement this. I think I will work out how I can do it.

It was noticed that only a focus group interview revealed their inclusive initiatives to implement and plan toward parents working with children on a daily basis. By saying that, I would like to add some important contrasting points that I found from conversations with teachers: for instance, there was a popular statement from at least one teacher in the other three researched preschools that, when children are brought to school, that it is their responsibility to teach and look after them. Commonly, they added that they do not let parents stay inside unless in the adaptation period. A teacher said:

...we do not let parents come into the classroom while children are inside. In the beginning when children come for the first time, we should let parents come into the room when children are crying but after that all the responsibilities are on the teachers even to go to the bathroom or toilet...

In this statement, some teachers added that they are advised not to let parents be inside the classrooms other than during the adaptation period. This could be another research study to identify why because this sounds a bit concerning without further detailed empirical data for evidence. Lastly, I would highlight again that even though all teachers recognised that parent and teacher cooperation is essential on a daily basis for learning, teacher's self-confidence in dealing with parents is an important determining factor as to whether they would have good collaboration. This is reflected in conversation with a group of teachers, and one teacher shared that there was a lack of cooperation from parents and community

around her preschool. She said that there seemed to be a lack of awareness of working together in the interests of the preschool and gave as an example that some school facilities were even stolen.

Another added that some parents are never present in parents and teachers' meeting even though they are invited. Those parents who are active always maintain their cooperation but those who do not, continue to be distant. From that they thought that most parents have no willingness to be involved.

Lastly, the presentation of this section leads to the discussion chapter. In this chapter, findings will be discussed and compared with the relevant findings of related prior studies and theories.

CHAPTER V: DISCUSSION

5.1 Introduction

This research has set out to explore funds of knowledge in Timorese families and their use in education, specifically in early childhood education. According to Moll et al. (1992), funds of knowledge is a term used to reflect the knowledge and ability that is essential for the household's functioning and well-being. Grounded in this concept within early childhood programmes, funds of knowledge are regarded as skills, knowledge, networks and everyday practices that children acquire as they are participating in family and community life (Arthur et al, 2012, p. 37). The important findings will be summarized, interpreted and compared to the related existing literature. The implications of the findings will also be outlined, particularly what the findings from the research add to knowledge of working in the early childhood settings. These aspects will be explored according to the main themes presented in the findings which were concluded and organized under each research question. The sub-topics that emerged from the main topics in the findings will also be identified and discussed. In terms of funds of knowledge, this research found aspects around the family environment, values, cultural knowledge, as well as the interest of children in play and involvement in household chores.

5.2 Family Environment and Funds of Knowledge

A family is the small unit of people, who are bounded by any especial connection, that is the heart of the community. There are ranges of aspects related to the prominent functions of family, for instance, family is the place for sustaining the economic and emotional needs of its members and for identity development. In this section I will confine my discussion to a view of the family as a place of socialization and the context of the family in Timorese society. A further discussion in this section will focus on different funds of knowledge discovered.

5.2.1 Family as a place of socialization

It is still popular with the Timorese community to connect with everyone around them in daily life. As a result, regardless of any restriction that may be set by

parents, this kind of environment always enlarges children's horizons of association. The inclusiveness of socialization that Timorese children experience, especially in their preschool age, would suggest an expansion of the concept that family is the place of socialization. In other words, for Timorese, the place of socialization is not only in the family, it is also in the neighbourhoods and relatives. Some parents revealed that is the environment that they are in every day so they cannot avoid their children associating with others. Parents also thought that their children are actively learning different forms of behaviour from their social surrounding not only from home. Perhaps that contextual way of interpreting socialization is consistent with Drewery and Claiborne's (2014) view that socialization is "the process where an individual is taught the skills and behaviour patterns needed for competent functioning in the culture where they are growing up" (p. 68). Therefore, it seems that in the Timorese context, the process of learning within socialization is as important as the places (family, extended family and community) where socialization develops. This emphasis suggests that, regarding socialization, the family should be a place to make sense of and evaluate the patterns of behaviour that children bring from outside. This point of view also looks beyond the idea that early instances of socialization are built from parents' and children's relationship (Grusec, 2011). Very young children or babies start their socialization from their connection with their parents, but as they grow up, in the context of Timor-Leste at least from the age of three, their socialization habit is expanded.

5.2.2 Concept of family in Timor-Leste

Regardless of changes over time in the form of family, it is still popular for Timor-Leste to maintain its culture of living in an extended family form. That type of family is bonded by blood lines and strengthened through customs in *Uma Lisan* (Brown, 2012). Timorese people in general value having cultures in *Uma Lisan* and believe in their implications even though direct involvement in the *Uma Lisan* ceremonies would depend on the possibility for participation that every family member has and how much value is placed on participation. In the *Uma Lisan* (traditional house), people who are included in a kinship come together in certain ways for traditional ceremonies, called *Lisan*. The *Lisan* involves all kinds

of ceremonies, for example, the important occasion for worshipping and asking for a healthy and prosperous life from ancestors, and the special ceremony in the harvesting time to demonstrate the appreciation of the blessing from ancestors and natural power. There is a long list of the ceremonies. Overall, *Uma Lisan* is believed to be a place where Timorese talk and unite ancestors and nature, including land and other subjects that support people's life. This way of life could also reflect the concept that family forms vary according to the tradition and culture of a particular society at a particular time and history (Wilson, 1985, p.5).

One of the strong characteristics of the extended family that showed in my study was the sharing of responsibility of taking care of young children. For parents who are busy with work, relatives would normally be entrusted to look after and bring their children to school. This trait aligns with potential advantages of the extended family (see Saxena et al. (2015), especially helping each other, being cooperative and accommodating. The same manner is illustrated in Timor-Leste's indigenous cultural activities. Relatives shoulder the moral responsibility to help other relatives within the links of extended family. One example could be the act of contribution in family gathering for wedding ceremony preparation of family member. Prior to the wedding ceremony, everyone would be invited to come together to talk about the coming event. From that, each extended family member would contribute ideas, financial support and perhaps another form of contribution. Other than reducing the burden that family members are carrying, contribution and coming together are the symbol of being united, maintaining the extended family's dignity and value in the society and sustaining tradition that has passed down generations.

5.2.3 Funds of knowledge

The emphasis on and recognition of funds of knowledge guided learning was a very new concept in the participant preschools. Often, teachers and parents considered knowledge from outside the class, such as from family and the wider community, as a supplementary educational resource that was rated below the subjects or learning guidelines in the curriculum or lesson plan. This would suggest that an understanding of the importance and the practice of using the funds of knowledge was rare. I am confident to say that as well as collecting the

information, this research was very informative to educators because the process helped them to explore and bring into awareness education resources that family and community possess and how to involve these resources in every day learning. A study by Moll et al. (1992) showed that by gaining knowledge and understanding of families' social and economic activities, teachers were able to transform their pedagogy into significant student centred learning. As a result, that transformation significantly enhanced their students' academic performances.

The advantages of the model of pedagogy based on funds of knowledge encouraged the realization of this funds of knowledge research. The results of my research and Moll et al.'s study are discussed and compared in the section below.

5.2.3.1 Mutual trust

Mutual trust found in my study is a similar result to Moll et al. 's (1992) study. This mutual trust exists in everyday life of the families whom I talked to in my research and also in the family and society in Moll et al.'s study. In the matter of how trust was utilized, in my study trust was found to be a significant attribute that facilitates working together, especially in childcare, and parents and teachers sharing about their children. In Moll et al., (1992)'s study, mutual trust was primarily found to be an essential attribute that makes a stronger social relationship and an element that sustains the social connection. As a result, trust brought fulfilment to the needs of the household.

Additionally, I argue that Timor-Leste's community has a similar basis in mutual trust even though the conclusions about mutual trust in my study were based on a small-scale research study. For example, my study only conducted an interview with parents and teachers in preschools while Moll et al.'s (1992) study used a more in-depth ethnographic approach and included a home visit. Therefore, I would like to argue that Timorese communities also live their life based on mutual trust, which has been a fundamental attribute to developing positive and open communication between parents and teachers. This relationship has proven its benefit, such as some parents and teachers who trusted each other have mentioned how comfortable they were in sharing knowledge about their children. So, to

some degree, there was openness that generated a sense of teachers and parents together stimulating the learning journey of the children whom they share.

Nonetheless, there was an imbalance in demonstrating trust. One finding appears to my understanding to be that the mutual trust seems to only occur between teachers and employed parents, which was a small number of parents. These parents and teachers always feel free to talk to each other via phone or even face-to-face. So, there was a sense of confidence regarding communicating with each other, seeking assistance, even though the parents do not see teachers every day. The children from these parents were often brought by other people, who would mostly be their relatives, caregivers, siblings, and grandparents. Teachers' points of view, when facing these parents, were that these parents have a high level of self-assurance. Teachers have clear and excellent communication with those parents about children and about asking for any assistance for the school. Both parents and teachers reported that their cooperation for children's learning was excellent and they can see the progress of their children.

While mutual trust seems to be fundamental for building a relationship between employed parents and teachers, it did not happen for most mothers who were regular housewives or stay-at-home mothers. The sense of trust between these groups of mothers or parents and teachers is obviously unbalanced. Some realities showed the inequality, for example, first, even though these mothers were at school all the time, the communication between them and teachers appeared to happen only to a minimum degree compared to employed parents who seldom came to school. Secondly, it was also found that these parents tended to depend upon the sole responsibility of teachers for their child's education, despite being at school most of the time and they completely trusted teachers' professional ability to teach their children. In this point, I would like to elaborate the demonstration of the complete trust from parents in two different ways. The first is that perhaps because these parents come from lower education backgrounds, they were inclined to rely on teachers or, as Mahmood (2013) and Drummond and Stipek (2004) affirmed, there would always be parents who have no willingness to cooperate due to a lack of understanding towards their children's learning. Another point is that perhaps they were not given a chance so what they do is just

to trust completely without any question. In consequence, that leads me to see that perhaps teachers' initiative to work together and welcome parents' participation on a daily basis seems to have been minimal.

In the current Timor-Leste educational environment, I recognized that the result of this research is not enough to conclude who seems to be not making an effort, parents or teachers? However, professionally, teachers should make the first move, for instance, having the courage to show a welcoming attitude and initiate a warm communication to all parents regardless of their background. Even though it could be difficult Crozier et al. (2007), it is more the responsibility of educators and their institutions, and part of their accountability to families and community, to devise various approaches to keep a healthy and sustainable relationship with families. The authors added that the minority families are the most important people needing to be helped by teachers and their institution. In the context of this study, the minority could be the parents who happened to be excluded from the circle of parents' connection, although they were present at school every day. Likewise, Adair et al. (2008) showed that making the communication easy, trusting parents and gaining parents' confidence that they are respected and understood by teachers, could generate an environment where children can do better academically.

Finally, it is somewhat complex to talk about trust, but it is not impossible to build and nourish trust because it is present in the family and social life (Moll et al. 1992). Therefore, regardless of any limitation, everyone can be trusted at some point accordingly.

5.2.3.2 Time

This research found that the participant preschools seemed to experience no obstacles about time. There were many parents who brought their children to the preschool and stood by the preschool until the class finished. Parents who were busy with their job also reported that they always found time to talk to teachers. These parents had high initiative and resources so they could speak to teachers via any medium. Of course, time is not a source of knowledge, but it is absolutely a significant condition for allowing funds of knowledge to be explored. Time was

an important aspect recommended by Korfmacher et al. (2008) that teachers should fit their time to suit with parents. This would suggest that making time for connection, collaboration and sharing about children is as important as helping children's learning at school.

Time was there, parents were there, but communication was very rare. Both parents and teachers seemed to look beyond the real opportunity that they had every day. Teachers would claim that many parents were very reluctant to work with the school and the same claim was made by teachers in the study by Drummond et al., (2004). However, parents claimed that teachers seemed to be busy always, so even though they wanted to talk about anything related to their children, they had no chance. This condition shows that time was not used wisely by either teachers or parents. However, based on my observation, it seems there is always a good time to involve parents because many parents were outside doing something else while children inside needed help. Certainly, it is not easy to engage parents in their children's learning and some teachers admitted that, but there should be other things that parents could be welcomed to do to at least make use of the parents' available time, for example, preparing learning materials. Therefore, unlike some literature cited by Boag-Munroe et al., (2012, p. 127) which stated that "many working parents find it hard to connect with their children's schools because of having a demanding working schedule", this study found that employed parents always manage to work with their children's teachers even with their busy schedule. For these parents focusing on their children's learning is a major responsibility and therefore they did not see the challenges regarding time. They would make time to talk to teachers via different means when there were issues about their children that they should talk about with teachers.

Additionally, the result also contrasted with what Mahmood (2013) stated such as a time obstacle might also be faced by lower-income parents. In Timor-Leste, families or unemployed parents would still have time, and I assumed this based on the reality observed during the research. Many mothers who were only housewives were present at preschool every day. These mothers would sit in small groups outside and talk to each other while waiting for their children in the class.

Parents' interactions are still very important as they can enlarge their social cohesion, perhaps sharing about their children and learning from each other. But I would suggest this should not constantly happen while more assistance is needed for children. Parents must be trusted with other activities that support the progress of pedagogy within the preschool environment.

5.2.3.3 Interest to support children's learning and effectiveness of managing children's routines

Parental interest was found in parents' interviews and observed in the research settings. Every parent aspired to continue to help their children's learning, and some described how well they managed their children's routines. There was also evidence of how committed some parents were to collaborating with teachers for their children. These were fundamental qualities that seem to be overlooked many times because only those parents who were confident to approach school were valued and entrusted for their engagement and contribution to school development. Teachers did not seek to know, use and value the commitment and routines management from silent parents.

However small or large the commitment from parents, it should be considered as a fundamental attribute to be thoughtfully valued and utilized. Trust and commitment are sequential.

5.2.3.4 Values and cultural knowledge

Specific significant values and cultural practices were found as mediums to guide children through a positive upbringing in the society of Timor-Leste, particularly in the life of participants in the research. Those values are respect, and obedience to both religious practices and indigenous culture. Every parent commits to guiding their children to becoming respectful people wherever they are and encourages them to follow church teaching and practices. For a long time, Timorese community had believed that religious education educated people to unite, relate to one another and develop more personal commitment (Carey, 1999).

This practice reflects one of the substantial functions of family asserted by Wilson (1985) and Mckie et al. (2005) that family moulds its members' identity and individual growth. Parents placing the importance of developing socially acceptable attitudes in their children also echoes how significant are parents' aspirations for their children's personality development. The values were not the only aspiration, but according to the finding from teachers, some students were already equipped with positive social attitudes when they enter school. For teachers, positive attitudes such as sharing, helping each other, and good communication in class were considered as advantages that children brought into the school. These children would help other children to learn alphabets, numbers, and drawing and create a comforting environment for their peers to play together. The sense of cooperation that children have is not surprising because they are taught by their family and community to share and help. "Children are members of family who should be considered as complex organism that mirrors and actively interacts with its cultural and social context" (Schwartz et al., 2011, p. 566).

Indigenous knowledge and beliefs were valued and practiced within the life of Timorese families. Parents believe that taking part in the cultural ceremonies in their *Uma Lisan* is essential for the well-being of their family. Brown (2012) notes that the *lisan* or custom is embedded in ancient unity with ancestors, the natural and the unseen world of spirit. It is culturally believed that obeying and respecting adults, especially uncles from the maternal side in the mature person in the *Uma Lisan* can prevent you from any suffering and or illness, infertility, natural disaster and other curses (Brandao, 2011). As a consequence, parents often seek to participate in different cultural occasions although the place may be distant and they may not be bringing their children with them. From the various ceremonies held in *Uma Lisan*, parents must be exposed to a variety of knowledge and beliefs that may be important to be sought and used in the classroom. So far, the findings of this research showed that the indigenous knowledge learned in class is limited only to traditional materials, but parents' knowledge about indigenous customs or *lisan* goes beyond physical materials.

In addition to ancient custom or *lisan*, there was also significant value placed on common practices for regular family events, for example, weddings, birthdays or family gatherings for different purposes. Findings in this research revealed that children often participated in these events more extensively than in ceremonies in *Uma Lisan*. Parents believe that their children acquire cooperation or social skills from participating in those occasions. Other than that, few parents valued the culture of farming and harvesting, which I think regardless of that it was the least found, it is a crucial tradition to pass on to children. Moll et al. (1992) found that agricultural activities were considered as funds of knowledge from family. Similarly, I would also conclude that any farming activity in Timor-Leste should become a source of knowledge as children will learn when they are involved in it. For example, through involvement in coffee harvesting, children will learn types of coffee that are ready to harvest, how to manage or keep them in good condition before selling or making them into a drinkable coffee. The value placed on learning these kinds of skills would form an individual who can substantially relate to their existing livelihoods, appreciate family properties, and maintain their sustainability. Farming skills should be valued in similar ways to parents valuing formal education. However, the skills of farming seem to be diminishing over time as not many parents talk about these. Almost all parents want skills that are related to technology, such as computers. There are various indigenous ways of sustaining family in Timor, which I think are very important to pass on to children even though parents' main aspiration is that their children should endeavour to gain a good education.

Overall, the values that family in this research possess are a mixture of aspirations to guide children to grow up with positive attitudes, awareness of cultural beliefs and religious practices and skills for livelihood management and sustainability. It seems that these values are a package, regardless of how significant they are to each parent. These are all important, and influence children's cognitive development (Vygotsky, 1977). However, these values do not feature in teachers' understanding, perhaps because there was not much emphasis placed on seeking to understand them. Also the relationship patterns that teachers and parents have would not allow the exploration.

5.2.3.5 Literacy and numeracy skills

There were always some children who enter preschool with prior knowledge of writing and reading alphabets, remembering numbers. Parents in this study revealed that at home they encourage their children to learn numbers and alphabets, and children would do dramatic play on counting numbers and reciting alphabets. Based on this experience, it could be argued that the significant development of these funds of knowledge was influenced by beliefs about schooling and expectations of parents. Being able to read and write was the ability most expected by parents for their children as they believe that is the main goal of education. Like Congolese parents in Mitchell et al.'s (2012) study, Timorese parents in this study also believe that education can bring possibilities to make their children's life become better.

The high aspiration of Timorese parents for their children's education was also based on their previous experiences, such as lack of education opportunity. These parents reflected that the lack of educational opportunity and support that they had in the past are the main contributions for the difficulties that they face now as many of them are unemployed. So, they aspire for their children to gain literacy ability and numeracy ability. Parents' desires reported here illustrate the environment of the study of children dominantly influenced by parents' perspective, which is mainly based on previous experience.

From a funds of knowledge perspective, the basic reading, writing, and numeracy skills are very useful in the learning in class. Most importantly, parents placed particular value on activities that can increase children's literacy ability. In consequence, this could be a good learning topic that teachers should use as a medium to involve parents effectively in children's learning either in preschool or at home; for example, perhaps asking parents to prepare simple reading materials or materials for storytelling.

Nevertheless, what happened was that teachers and parents, especially parents who had a low level of education themselves, seldom communicated on better ways to improve reading and writing abilities. It was noticed that parents and teachers were likely to work independently, which produced a number of

limitations and illustrated a lack of stimulation in the education environment. The limitation was observed in the ways teachers used to nourish the skill, for example, children seemed to be instructed to copy the letters and recite or memorize them. There were a few stimulating activities, such as teachers reading to children and letting children play with blocks with letter design, but the level of implementation of these kinds of activities was shallow compared to writing and reciting.

5.2.3.6 Practice of the household's chores

The reason to investigate household chores at home was that they are the activities happening at home in everyday life that help develop some forms of children's understanding. The understanding would then provide children with ideas about how some things are working or help them to develop a particular concept. Children could experience the household chores by either observing or being involved in the practice. Vygotsky's socio-cultural theory emphasized that children's cognitive development occurs through interaction with people who are present in their environment and through their involvement in any activity (Moll, 2013). The outcome of the study related to this specific topic does not seem to reveal much about the participation of children in household activities. Parents were commonly seeing their children as young people who are incapable of doing things, while on the other hand, they commented that children's exposure to games or gadgets limited interaction among them and their children. Apparently, parents were aware and willing to encourage their children, but did not have enough understanding and skills to support their children in the matter of involving them in household chores.

5.3 Funds of Knowledge from Preschool Perspectives

The funds of knowledge approach in teaching and learning processes seems to be a very new way of looking at educational resources in Timor-Leste, particularly in the participant preschools. This study found existing knowledge that could be used to expand and facilitate other learning in the preschool. Therefore, this section discusses teachers' comprehension of the matter of funds of knowledge and difficulties that limit their exploration.

5.3.1 Teachers' understanding of funds of knowledge

The findings show that teachers in this study understand the funds of knowledge as being practically limited to the qualities that children brought into the classroom. This can be compared with the form of relationship that Moll et al. (1992) called a “single-stranded relationship” where the teacher “knows” the students only from their performance within somewhat limited classroom contexts. This kind of relationship in this context represents only a single way relationship from teachers, which does not allow the flexibility of getting more understanding from outside the class.

To some extent, Timorese parents and community have multiple connections as well; they are living in extended family and society. Therefore, regarding funds of knowledge, families and community should have different knowledge and skills, which teachers should be welcome in their teaching and learning process. But what happened was teachers only perceived funds of knowledge from material attributes that were offered by parents.

Overall, the practice of rarely including sources of knowledge from outside the class has been a long-time tradition in the environment of the education in the participant preschools. I think this pattern is also popular in other preschools. Teachers were usually inclined to see funds of knowledge as restricted only to literacy, numeracy and social skills of children.

5.3.2 Difficulties that hinder Teachers from seeking out Funds of Knowledge

There were distinct contributing factors found in this research. The first was that because teachers were very focused on materials written in the lesson plan provided, they perceived that there was no need to search for outside knowledge. This indicates that teachers’ interpretation and understanding of their role in teaching was very narrow and fixed with what is written in there. On the other hand, it seems that the session plan dictates teachers’ implementation. The session plan sets out a very fixed timing for every activity. Most of the teachers reported that they have very strict time allocation to implement session plans so they could

not expand their creativity for teaching. Additionally, some teachers became more static in teaching when they were observed by inspectors. In this context, I would argue that the approach to implementation of the session plan should be adaptive, sensitive and friendly. Otherwise, and the session plan potentially diminishes teachers' initiative and an important role of educators who should be active and innovative. I understand that enormous effort was expended on how to use the session plan to meet narrow learning outcomes written in the curriculum. But the implementation should also be based on other essential philosophies in the curriculum, such as teachers should be encouraging outside contribution, for example, increasing the involvement of parents, getting to know what parents could offer, not only requiring what parents must offer. Otherwise, the very narrow focus and inflexible patterns of implementation will result in the application of a learning process that is based on only narrow parts of the curriculum, and which does not relate to children's everyday experience within their community.

The second reason, is perhaps, that there was no professional development for teachers and self-awareness. Based on discussion and observation, the impression was that teachers' authentic dedication as educators also influenced their motivation to stretch out to seek the knowledge outside the class. A straightforward example was that some teachers had presumed a negative reaction from parents in the first instance or even before purposefully conducting an open communication. Studies suggest that there is an advantage when teachers are open to learning, and avoid any stereotype. This would suggest that educators should have enough courage to escape the traditional mind-set that hinders the possibility to acquire knowledge from different sources that exist in family and local community. Instead of isolating learning processes, perhaps teachers should reflect and give more meaning to the notion in the Preschool Curriculum that "parents also have important roles in the student's learning" (Ministry of Education Timor Leste, 2014, p.5). This would trigger full attention to examining what could everyone does to help children or to focus more on developing children rather than finding weaknesses.

Lastly, teachers' levels of understanding on the importance of gathering funds of knowledge also matters. While few teachers regularly communicate children's information, some assumed that data gathered in the enrolment period is enough, so there was a lesser need for more information. It still seems that the source of knowledge was understood to come from teachers and sources provided at school. Therefore, instead of seeking more information, teachers tended to give more information to parents in every meeting that the school conducted or even every day. However, several studies stated that providing more information rather than listening to parents would avoid the discovery of source of knowledge from family (Moll et al., 1992; Adair et al., 2008; Boag Monroe et al., 2012).

5.4 How do Timorese families use their funds of knowledge to enhance children's development?

All the conversations with parents and observation during the research had shown me a variety of ways in which the parents were supporting their children's development in education and as a person. For example, some parents were very committed to accompanying their children to school until the end of class and others, although they sent their children with relatives to the learning centre, were still active in their contact with teachers. However, it was very different when it came to parents using their funds of knowledge to enhance children's development, both academic and social. It was demonstrated that parents' professional background, socio-economic status, and family environment were very influential in the proportion and patterns of assistance they offered their children. This reality is not unique to Timor-Leste, as many kinds of literature highlighted that parenting styles impact extremely on children's development and the quality of parenting also depends upon parent education, more likely mother's education, parental characteristics and cultural beliefs (LeVine, 2003). In this current study, parents who have higher education or professional careers were very effective in guiding and teaching their children in how to write, sometimes reading and providing learning materials. This was also the small group of parents who were reported to be very active in sharing with teachers about their children's learning and what was happening with their children at home, although often they would only call teachers via phone and intensively check homework. These

parents also showed their effort to develop their children's language and communication through providing videos, cartoon movies, or books with pictures for their children to expand language understanding. There were also a few stay at home mothers who made efforts, that led to the effectiveness of educational progress for their children. Their concept of educative parenting style was that based on a principle that they and their husband set together, such as while husband works, mothers should assist their children as much as possible. The majority of the remaining mothers or housewives appear to be not as active as the mothers and fathers who set the guidance of their parenting process. So, what they could do was limited to checking homework and bringing their children to school every day. From this reality, I strongly agree with those studies that concluded the power of the influence of parents' education, social status and the support from home environment had on children. As not all parents have a sufficient understanding and support system in their life, there are always differences and gaps in qualities of assistance. Nevertheless, these qualities can be instilled through intervention, and mediation, and reinforced through parental training programmes and improving preschool and parent partnerships (Anders et al., 2012).

5.5 How do teachers know about families' ways of encouraging their children's learning development ?

This study found that teachers notice parents' way of improving their children's learning through two different approaches. The first was observing children's learning performances in class, when children were showing their ability, for example reciting alphabet, numbers, cooperative skills and having the homework done from home. Another approach was that teachers learned from parents talking to them, offering voluntary work at the preschool, or showing willingness to help when the preschool needed it. I would like to examine this kind of conclusion in two different ways; one is that teachers seemed to be very purposeful concerning observing children and this is part of their role. In a number of ways this could make sense, somebody has taught the children beforehand but, teachers did not explore the process of learning happening for example, for the school homework that has been done from home, whether it comes from parents' guidance or

parents telling the child the answer, or somebody else doing it. It could be argued that parent-teacher conversation may reveal what process was followed but since not many parents talked to teachers, the knowledge of the process would still be less. In a case like this, studies suggest that the commitment for communication should come from school and teacher, they need to keep examining or asking what assistance parents need to help them to be more involved in their children's learning activities (Drummond et al., 2004; Boag-Monroe et al., 2012).

5.6 Parents and Caregivers' Engagement in Preschool

This section will discuss two forms of participation: first, engagement in everyday learning, which was based on types of activities observed presented in Figures 4.5, 4.6, 4.7, and 4.8 in the findings chapter. Second, is some other physical assistance that parents offer voluntarily.

5.6.1 Engagement in learning activities on daily basis

The more familiar and vital are the people who come together with us, the more we feel confident, secure and, of course, it brings enjoyment. This is one of the essential philosophies in early childhood education, and when it comes to the application, it can only be created through different ways of engagement from parents, teachers and most likely caregivers. A study shows that "with parents and teacher in close cooperation children can gain a sense of continuity and create a trusting and secure environment where they can explore knowledge and environment" (Whalley & Pen Green Centre Team, 2001).

The sense of working together in the early years settings of the study was very concerning. In almost all the settings, the patterns of engagement were approximately similar. For example, in all early childhood settings, no action happened regarding matters like parents helping in preparing materials in the learning centre or parents offering any learning source and reading to children in the class. Two, the degree of involvement in activities, such as sitting next to children and showing how to use materials, was very low. Lastly, what seemed to be often happening was that the conversations between teachers and parents were very short, and were followed by staying outside the class.

Likewise, there was not much happening from the teacher's side either. For instance, it was very rare for teachers to invite parents into class even though somehow, they seem to be challenged in class dealing with children, whose total ranged from 25 to 40. Some teachers mentioned that as well. Even though it is cited in the Preschool Curriculum that parents can be invited to class (Ministry of Education Timor Leste, 2014), in practice it seems to be challenging. The findings revealed teachers seem to welcome parents in the class more at the beginning of the school year when children are in the transition period. On a daily basis, both teachers and parents maintain distance from each other in terms of engaging together in children's learning activities. At a particular moment, there would be a few parents in the class sitting with their children and showing activities to children, this was not enough to create a quality class. It appeared to me that there was a less genuine relationship, because it was rare to see a warm interaction between teachers and parents in the class, and or it could be said that parents' involvement was not seen as something exciting.

In conclusion, it appears that some radical and courageous changes should take place. These could ensure that no children are left behind and every child is well assisted to develop their potentiality.

5.6.2 Physical assistance offered by parents occasionally and on a daily basis

While the engagement in children's learning activities was poor, parents were reported and observed to be very active in providing other help to the preschool. The support commonly offered was repairing and upgrading physical schools, working together for big celebrations in school and participating in community celebration. On a daily basis, there were always parents helping in preparing food, looking after children in break time and washing children's hands. This action was apparently indicating that the level of cooperation was higher in helping the school than in direct action to improve children's learning. These kinds of support are worth recognition as many things to be accomplished and impact in many ways on children's education. However, according to Lueder (2011), these are traditional ways of collaboration, and if schools continue with this model, it will continue to limit the involvement of hard to reach families. Findings on cooperation and engagement in the current research are well reflected with this

statement. Both parents and teachers were greatly inclined to the traditional manner, and the working together was always initiating from school requesting assistance from parents and often through a formal meeting. Moreover, whether teachers aware or not, some downsides of the approach arose where, for example, teachers themselves claimed that though invitations are delivered to every parent, some never appear for meetings or discussion. By experiencing this, instead of seeking reasons for why these parents could not even try to connect with school, teachers seek more help from parents who traditionally support the school and are active in communicating with them. Thus, the needs of school would be fulfilled, but this sustains passive connection from those parents who have no confidence in their ability to connect with school, as Lueder has warned.

CHAPTER VI: CONCLUSIONS AND RECOMMENDATIONS

This final chapter will draw conclusions on the findings, the contribution of this research to the field of early childhood education, especially for Timor-Leste, limitations of the study, suggestions for future researchers and recommendations.

6.1 Summary of the Findings

This research aimed to explore funds of knowledge that Timorese families possess and how this knowledge was used to develop children's education. This research was conducted in four preschools across Timor-Leste. In these preschools, I held focus group discussions with parents and teachers and carried out structured observations of parent involvement. The discussion and observation in the research were guided by three research questions. Therefore, the findings were also analysed and presented according to the research questions.

The first question was about what funds of knowledge exist in Timorese families. The essential findings were about the qualities and essential traits that are cultivated and practised within nuclear and mostly extended families, which is the popular type of family in Timor. The qualities of the family environment are mutual trust, collaborative ways of rearing children, parental availability, and upholding values and cultural tradition. These characteristics can be considered as funds of knowledge because they are living attributes that can increase the sense of assistance for children learning if they are well used. From the teachers' side, observation of children in class and parental contribution in the form of their aspirations and materials were also considered as resources for education. However, in terms of searching for more in-depth family knowledge, teachers' professionalism, understanding and integrity were very influential.

The second question was about how Timorese families use their funds of knowledge to enhance children's learning and development. The primary findings for this question mostly concerned parental aspirations about the skills to be learned by children, such as literacy, numeracy, and communication skills. The majority of the parents stated that they would do anything to support their children to acquire those skills. These parents believe that if their children mastered skills

in these areas, they would have better chances for further education. Some said that they did not experience good opportunity for an education themselves, therefore they found themselves unsuccessful in life, so they do not want the same situation for their children. Regardless of the clear expectations, the results of this study were that parents did not have effective approaches to nourish these skills and, unfortunately, many of them did not even attempt to communicate with teachers. Commonly, the cause of this limitation was the educational ability and a family environment ineffective in supporting development of those skills. The small number of parents who were very active in supporting their children, were all well-educated and worked in professional areas. The results from teacher discussions show that teacher understanding of how families utilize their knowledge for their children's education was mostly from observing children's performances in class. Indicators for parents were when children have their homework done from home, parents offering learning materials and participating in volunteer activities.

The last research question asked in what ways are family funds of knowledge welcomed and used in the preschool. Both teachers and parents tended to see that preschool welcoming of parents' knowledge as requesting a contribution of learning materials. Interestingly, the data showed that this practice only applied to parents who showed interest or to parents with whom teachers found it easy to communicate. So, inequality in the environment of preschool is still common, and it is a challenge that needs to be overcome if equality is to be experienced by everyone. On the other hand, a clash between parents and teachers was still noticeable. For example, teachers assumed that some parents are very reluctant to cooperate with them. Contrastingly, some parents would think that teachers seem to have no time and therefore, they did not try to communicate with teachers about their children's learning.

6.2 Implications of the Findings

As this study was conducted in Timor-Leste, the implications of the findings would be more on the development of the early childhood education system and practice in everyday teaching and learning process. The first implication could be that by gathering the source of knowledge from family and emphasizing the

importance of that knowledge for early childhood learning and development, teachers can adapt and establish a learning environment that is grounded in family funds of knowledge. For example, teachers can be more confident in parents' ability, see parents and their families as important stakeholders for children's educational development, rather than staying with traditional assumption that teachers are the experts. Teachers could have the courage to involve every parent in preschool, without judgment. Also, teachers could be more aware that there are more sources of knowledge that can be found within family and community, including understanding of what values, cultural tradition, and practices in children's everyday life can potentially enrich the teaching of their lesson plans.

The second implication is that the findings could remind schools and their teachers that there is a need for building and nurturing a positive relationship with the parents of their students. Because that is a fundamental approach that can allow both parents and teachers to work together, feeling confident, trusted, being able to have open communication about their children and their learning, could eventually lead to each party gaining more knowledge. Additionally, young children like to see that the people who are important in their lives know and like each other.

It is essential for teachers to utilize these qualities. Because as they have proved to be working well in families and community life, they must bring success to the process of learning as well. According to the finding parents and teachers' connection is a challenging practice in the participant preschools, and it is one of the important aspects that need to improve.

Another implication could be that the findings would bring more awareness to policymakers and crucial early childhood bodies in the upper level on what practice is going on in the preschools. I recognize that there are different monitoring, evaluation and observation systems but the finding of this research could be another way of informing those influential people. Additionally, these findings suggest to those key people to be more thoughtful in the development of any policy regarding parents and teachers' cooperation. In other words, the findings could motivate policy makers to value more parents' aspirations and recognize their good practices for assisting their children's educational

development on a daily basis. Above all, ensure that both teachers and parents are genuinely working together in ways that could improve their everyday practice of educating and assisting children that they share.

6.3 Limitations of the Research and Suggestions for Future Research

Regardless of the contribution of the findings from this research, there are still several limitations. One is the limited setting and population, as this research was only conducted in four preschools. This research is about funds of knowledge of family so more information could be gathered if home visits had been conducted or parents interviewed at home and how their home environments function had been observed. In visiting homes also I could talk to more parents and include other adults at home because it is common that Timorese families have many family members who would look after or assist children at home, sometimes they would be closer to children than the parents of the children.

Another limitation is that the exploration of topics in the interview seems limited. For example, many parents would talk more on aspirations for academic achievement and little on their everyday practice to guide their children and how they sustain their everyday life that sometimes includes their children. This suggests that perhaps not every parent would be confident to talk to me about what they are doing. Therefore, I would again recommend the home visit, and it is more beneficial to observe any activity to discover more about how it is conducted and see what children can learn.

Observing these constraints, I would like to suggest some points for future researchers. First, to gain more rich information it is essential to make a home visit when one is conducting a study of funds of knowledge. Before undertaking the home visit, it is essential to ensure the families are comfortable with your presence. If deciding to make a large funds of knowledge research study it would be beneficial to learn and follow Moll et al.'s (1992) method of study. They used a home visit approach, and most importantly they were working in collaboration, that is, researchers and teachers were working together within their research project. Otherwise, for either small or large projects of funds of knowledge

research, I recommend having the home visit and participation in any activities that the researcher thinks would be a source of knowledge.

Lastly, it is also essential for future researchers to allocate more time to explore, as this would provide more opportunity for parents to be involved more in discussion and allow more time for home observation.

6.4 Recommendations

Through undertaking the research, I have learned of some critical aspects related to early childhood learning practice that need improvement. Without reducing my recognition of different activities provided and professional training delivered within the area, I would like to provide some recommendations which I think would help to enhance the quality of early childhood education provision.

The first part of my recommendations is to early childhood education system developers in Timor-Leste.

1. There is an emphasis on the Preschool Curriculum that parents have essential roles in their children's education (Ministry of Education Timor Leste, 2014). For early childhood education, this statement is vital. I think there should be a specific policy and exemplars for educators to guide them on how they can assist every parent to execute their roles, regardless of their economic and educational background. I see the importance to train teachers on how they can work strategically with parents is as important as preparing them for the content of teaching. Teachers need to be well-informed, so they can be more knowledgeable and competent in executing their role of working with parents.
2. Creating programmes in preschool to make preschool become a more family-friendly preschool is important. For example, in each preschool, there should be a provision of physical space for parents to conduct different activities which can empower them and make them feel they belong to the school community. Having a sense of ownership and feeling empowered would not only have a positive impact on children's learning development but also on family and community in general. Additionally, for Timor-Leste, there is a need to create a parenting programme and raise awareness of parents and

teachers of the value of their cooperation and see themselves as co-educators. Overall, it means that government through the Ministry of Education should invest more in finance and human resources to establish such a programme.

3. Based on my observation, the practice of teaching using session plans prepared by the MOE somehow is not effective. I understand there must be many benefits and good reasons for implementing this, but there needs to be more efficient ways to guide teachers in using it just a guideline, as is offered in the Preschool Curriculum. Otherwise, it discourages teachers' creativity, limits teachers to mastering planning lesson plans and limits teachers in exploring funds of knowledge from outside. When discussing welcoming family funds of knowledge, the session plans always are a reason to stop other knowledge from outside. All the lessons are scheduled, and teachers stated that they were instructed to teach to what is written according to time allocated. This seems like a static practice of teaching, which makes the learning process of children far from a stimulating environment. Therefore, I would suggest that MOE should inform clearly that those session plans are just guidelines and encourage teachers to create their plans or implement the plans with a flexible approach. Additionally, I am highly recommending that while assuming roles for monitoring and evaluation, the preschool inspectors should be able to do mentoring for the teacher, or show teachers how to teach in active ways. If they continue to only monitor and evaluate without practice or demonstrating an example and understanding of what the impact for children would be, it will not encourage progress.
4. I would also to recommend MOE to set up a reflection programme for teachers. Perhaps quarterly or twice in an academic year and that could be an opportunity for teachers to examine their roles as educators, examine their service. I think that this would help teachers to find value in themselves, develop more their passion for teaching or see teaching as one of the most essential careers for human development.

This second part of my recommendations is directed to preschool teachers.

1. Teachers need to be more flexible and welcoming for parents; keep good communication with every parent regardless of the difference of social and economic background; and have enough confidence to relate to parents and community. I would like to recommend a conflict resolution philosophy in working with parents for children, such as when two parties are in a dispute it is more important to examine the issue rather than the people and find the way to solve the issue. This would suggest that teachers should have the courage to invite parents to work together for children, instead of being sceptical toward parents. It is essential to see that they are sharing the same child who needs support from both sides because studies show that if the parent and teachers get on well, children will experience a learning environment that is more secure and comfortable. As a result, this would benefit their holistic development. I am very strongly recommending teachers and parents, especially teachers, think objectively and feel confident that they are capable and they can do that.
2. I would also like to encourage teachers to be more creative, and responsive in implementing activities for children. Teachers should make the class more stimulating by engaging parents in daily classes purposefully. Also, teachers need to implement more techniques of observation for children and their families, in order to gather more information and learn more about children and their families. My research findings revealed that teachers were inclined to observe only children in the class, therefore, they did not have enough information for developing activities based on family funds of knowledge.
3. Another suggestion for teachers is that they try to innovate their concepts and ways of involving parents' skill and knowledge. For example, they could have more effective communication on the matter of children rather than keep following traditional methods, as, parents are more likely to be engaged when they are needed financially and materially.

This last part of my recommendations is directed to parents.

1. All the parents with whom I talked during my research aspired to a good education for their children. However, only very few of them would put their

aspirations into practice, for example, by communicating with teachers and managing their children at home. Because of that, I would suggest that most parents who did not become active to encourage themselves to communicate with teachers and assist their children at home. One of the most important solutions that I think of is that sometimes, it is better to share with other active parents, so they also can learn to manage their children in effective ways. Also, those active parents could also help or encourage others to work with teachers or connect them with teachers.

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APPENDICES

Appendix A

To: From:

cc: Date: Subject:

MEMORANDUM Zulmira da Cruz Soares Pinto

Associate Professor Linda Mitchell

Chairperson, Research Ethics Committee Belinda Wheaton 3 May
2017 **Request for Research Ethics Approval – Student (FEDU034/17)**

Thank you for your request for ethical approval for the project:

Exploring funds of knowledge in Timorese families and their use in education

I am pleased to advise that your request has received ethical approval.

Please note that researchers are asked to consult with the Faculty's Research Ethics Committee in the first instance if any further changes to the approved research design are proposed.

The Committee wishes you all the best with your research.

Associate Professor Linda Mitchell

Chairperson Research Ethics Committee



Appendix B

Information Sheet for Ministry of Education

Mr. Cidalio Leite MED
Director General-In-Charge, Primary and Pre-school Education
Department of Education
Dili, Timor-Leste

April 17, 2017

Dear Mr. Leite:

My name is Zulmira da Cruz Soares Pinto

I am a Masters of Education student focusing on Early Years Education, from the University of Waikato, in New Zealand. As part of the completion of my Masters ,I am undertaking a thesis entitled: ***Exploring Timorese families funds of knowledge and their use in education.*** Funds of knowledge indicates family knowledge, experience and possessions, which contribute to children's learning, development and wellbeing. The aim of this study is to find out about family knowledge and to see if this knowledge is used by teachers in preschools to help children's learning and development. I hope that this research will raise teachers' awareness about the benefit of knowing children's prior knowledge, and how they can use this knowledge to design their teaching to extend on children's prior knowledge It might also help teachers work out how parents can be involved more in the preschool.



Therefore, as a researcher, I would like to ask your permission to access four preschools in Timor-Leste. These preschool include public and private preschools, in Lospalos, Baucau Venilale, Dili and Liquica. In this case, I would like to propose a permission letter to attach with my information letter that includes details of the process of the study process. These letters will facilitate myself to collaborate with principals to invite teachers and potential parents to participate in the research.

Potentially, I will be present in each preschool up to four days. The idea of staying that long is that other than collecting data I would like also to establish relationship with teacher, parents and student in informal way. I will clarify everything in the initial meetings to avoid uncomfortable feeling that teachers or parents might have.

The data collection will be in three forms. The main approach is interviewing parents and teachers. The length of interview will take about 1 hour 30 minutes for each focus group. There will be additional 20 minutes coffee break. Observation would be another way of data collection, however, it will be done in a very informal way during my stay there. The other way is that I would like also to get some relevant documents, for example parent-teacher meeting minutes. The research will be conducted from the 8th May until the end of July

2017. But the coordination with MoE and preschool principals is expected to happen in the first week of May.

Finally, I will guarantee the process of the research will always adhere to the research ethics, which has approved by the University of Waikato. Participants will be given information and consent letter and furthermore I will clarify their right as participants in initial meetings.

For further information or clarification, I can be contacted +670 77920666 or by email zdcs1@students.waikato.ac.nz

You can also contact my supervisors:

Dr. Jeanette Clarkin-Phillips. Phone (+64) 7 838 4466 Ext 4875. Email : jeanette.clarkinphillips@waikato.ac.nz

Associate Professor Linda Mitchell. Phone (+64) 7 838 4466 Ext 7734. Email: linda.mitchell@waikato.ac.nz

Appendix C

Information sheet for Principals

Background

My name is Zulmira da Cruz Soares Pinto

I am a Master of Education student focusing on Early Years Education, from the University of Waikato, in New Zealand. As part of the completion of my Masters, I am undertaking a thesis entitled: *Exploring Timorese families funds of knowledge and their use in education*. Funds of knowledge refers to family knowledge, experiences and possessions, which contribute to children's learning, development and wellbeing. As a Timorese, I believe that Timorese families hold a variety of knowledge that is generated from their culture, values, professional work, their possessions and communities. It is essential to discover and utilize this valuable knowledge.



Furthermore, it is widely recognized in early childhood education that understanding and utilizing funds of knowledge from families can enhance children's development. Knowing families' and children's prior knowledge can help preschool teachers to create supportive and responsive learning environments. That could be through adopting suitable methods that fit children's ways of learning and designing learning activities that extend on children's prior knowledge as well as responding to their best interests. The findings from this research can be used to explore ways to reinforce the collaboration between families and teachers. Funds of knowledge can be used within the preschool education programme to help children develop socially and academically.

This letter is to invite your preschool to take part in my research. If you agree to take part, the research will take place between DATES 2017, in a week that suits the preschool. The research would involve me asking teachers at the preschool and a group of parents to take part in an interview, allow me to observe sessions in the preschool focused on interactions with parents, take photographs, for example any object that represents family funds of knowledge displayed in the classroom and parents helping in class or outside. I would also like to gather relevant documents that your preschool has, such as parent-teacher meeting notes, children enrolment form and other relevant documents.

Interviews

The teachers' interview will be a group interview that will take about one hour and thirty minutes. It will be held at the preschool after teaching has finished. The parents' interview will be a group interview that will take about one hour thirty minutes. It would be helpful if this could be done while the children are attending the preschool.

Observation

I will also undertake informal observation during the days I am at the preschool. This observation is to observe funds of knowledge that exist in the environment of the preschool, including in and outside of class. This observation is not to judge teachers' practice and parents' participation. I will also use my time in the preschool to build relationship with parents, teachers and children, through informal conversation and participating in any activity if I am allowed.

Document review

I would like also to gather any relevant documentation that your preschool has about parent involvement. Gathered documentation will be used to widen my analysis together with other forms of data collected.

The real names of the preschool and participants in the study will not be used.

Finally, I will fully explain the research to all participants and ask them to sign a consent form before participating in the research.

The electronic copy of my thesis that has been produced from the research will be become widely available, as it will be lodged permanently in the University of Waikato digital repository: Research Common.

If you have any questions regarding this interview that I cannot answer, please contact my supervisors:

Dr Jeanette Clarkin-Phillips

Phone (+64) 7 838 4466 Ext 4875

Email: jeanette.clarkin-phillips@waikato.ac.nz

Associate Professor Linda

Mitchell phone (+64) 7

838 4466 Ext 7734

Email linda.mitchell@waikato.ac.nz

Appendix D

Information Sheet for Teachers

Background

My name is Zulmira da Cruz Soares Pinto



I am a Master student from focusing on Early Years Education, from the University of Waikato, in New Zealand. As part of the completion of my program, I am undertaking a research on *Exploring Timorese Families Funds of Knowledge and their Use in Education*. Funds of knowledge refers to family knowledge, experiences and possessions, which contributes to children's learning, development and wellbeing. As a Timorese I believe that Timorese families hold a various of knowledge that is generated from their culture, values, professional work, their possessions and communities. It is essential to discover and utilized this valuable knowledge.

Furthermore, it is widely recognized in early childhood education that understanding and utilizing of knowledge from families can enhance full potential development. Knowing families and children's prior knowledge can help preschool teachers to create supportive and responsive environment. That could be through adopting suitable methods that fit children's ways of learning and designing learning activities that extend on children's prior knowledge as well as responding to their best interests. The findings from this research can be used to explore ways to reinforce the collaboration between families and teachers. Funds of knowledge can be used within the preschool education programme to help children develop socially and academically.

I would like to interview you about aspects of your work that involves family funds of knowledge and your understanding on the importance of family funds of knowledge toward children's development.

Focus group

The focus group will take about one hour and thirty minutes and I would like to audio-record the discussion. There will be additional 20 minutes for coffee break. Because of time limitation and focus group interview, it will not be possible to clarify comments and ideas after the interview, so it is recommended that clarifications are made during the focus group. During the focus group session, you are encouraged to ask questions if there is any confusion and I may also request clarification from you. The interview will be analyzed and be part of the findings for my thesis.

Observation

Besides conducting interview, I will also undertake informal observations. As I will potentially be at the preschool up to four days, observations will happen during those days. These observations are only to observe funds of knowledge that

exist in the environment of preschool, including in and outside of class. Therefore, I would like to state that these observations are not to judge parents' participation in the preschool. I will also use my time in the preschool to build relationship with parents, teacher and children, through informal conversations and participating in any activity if I am allowed. I would like also to take photographs, for example any object that represent family funds of knowledge displayed in the classroom and parents helping in class or outside.

Document review

I would like also to gather any relevant documentation that your preschool has, for example parent teacher meeting notes and students' enrolment form. Gathered documentation will be used to widen my analysis together with other forms of data collected.

The information from interview, observation and document review will be kept confidential until they have analyzed and the thesis written up. Your identity will remain confidential, as your real names and the real names of preschools will not be used. If you are willing to participate in this research you will be given consent form to sign beforehand.

The electronic copy of my thesis that will be produced from the research will be become widely available, as it will be lodged permanently in the University of Waikato digital repository: Research Commons. The findings may also be reported in scholarly publications and conferences.

If you have any questions regarding this interview that I cannot answer, please contact my supervisors:

Dr Jeanette Clarkin-Phillips

Phone (+64) 7 838 4466 Ext 4875

Email : jeanette.clarkin-phillips@waikato.ac.nz

Associate Professor Linda Mitchell

Phone (+64) 7 838 4466 Ext 7734

Email linda.mitchell@waikato.ac.nz

APPENDIX E

Information Sheet for Parents

Background

My name is Zulmira da Cruz Soares Pinto



I am a Master student focusing on Early Years Education, from the University of Waikato, in New Zealand. As part of the completion of my program, currently I am undertaking a research on ***Exploring Timorese Families Funds of Knowledge and their Use in Education***. Funds of knowledge refers to family knowledge, experiences and possessions, which contributes to children's development, learning and wellbeing. As a Timorese, I believe that Timorese families hold a various of knowledge that is generated from their culture, values, professional work, their possessions and communities. It is essential to discover and utilized this valuable knowledge.

Furthermore, it is widely recognized in early childhood education that understanding and utilizing of knowledge from families can enhance full potential development. Knowing families and children's prior knowledge can help preschool teachers to create supportive and responsive environment. That could be through adopting suitable methods that fit children's ways of learning and designing learning activities that extend on children's prior knowledge as well as responding to their best interests. The findings from this research can be used to explore ways to reinforce the collaboration between families and teachers. Funds of knowledge can be used within the preschool education programme to help children develop socially and academically.

I would like to invite you to be part of a focus group of parents to discuss the knowledge and experience that you/ your family hold/s that could support your children's learning in preschool.

Focus group

The focus group will take about one hour and thirty minutes and I would like to audio-record the discussion. There will be additional 20 minutes for coffee break. Because of time limitation and focus group interview, it will not be possible to clarify comments and ideas after the interview, so it is recommended that clarifications are made during the focus group. During the focus group session, you are encouraged to ask questions if there is any confusion and I may also request clarification from you. The interview will be analyzed and report in my thesis.

Observation

Besides conducting the focus group, I will also undertake informal observations. As I will potentially be in the preschool up to four days, observations will happen during those days. These observations are only to observe funds of knowledge that exist in the environment of preschool, including in and outside of class. Therefore,

I would like to state that these observations are not to judge parents' participation in the preschool. I will also use my time in the preschool to build relationship with parents, teacher and children, through informal conversations and participating in any activity if I am allowed. I would like also to take photographs, for example any object that represent family funds of knowledge displayed in the classroom and parents helping in class or outside.

The information from the focus group and observations will be kept confidential until they have analyzed and the thesis written up. Your identity will remain confidential, as your real names and the real names of preschools will not be used. If you are willing to participate in this research you will be given consent form to sign beforehand.

The electronic copy of my thesis that will be produced from the research will be become widely available, as it will be lodged permanently in the University of Waikato digital repository: Research Commons. The findings may also be reported in scholarly publications and conferences.

If you have any questions regarding this interview that I cannot answer, please contact my supervisors:

Dr Jeanette Clarkin-Phillips

Phone (+64) 7 838 4466 Ext 4875

Email : jeanette.clarkin-phillips@waikato.ac.nz

Associate Professor Linda Mitchell

Phone (+64) 7 838 4466 Ext 7734

Email linda.mitchell@waikato.ac.nz

APPENDIX F

Informed Consent Sheet for Teachers

Exploring Funds of Knowledge in Timorese Families and Their Use in Education

I, _____ have read the information form about this research and have discussed and clarify my concern with Zulmira da Cruz Soares Pinto (the researcher). Therefore,

- I understand that this interview is to find out the family funds of knowledge that I am aware of.
- I understand that the interview will be analyzed and written as a report in the researcher's thesis as part of the completion of her MEd at the University of Waikato and the findings may also be reported in scholarly publication and conferences.
- I understand that my participation is voluntary.
- I understand that this interview will take one hour and thirty minutes with additional 20 minutes for coffee break.
- I understand that this is focus group interview, so individually I will not amend information, however clarification of information could be made during the interview.
- I understand that during the research period I have the right to withdraw my participation, but as this interview is in focus group I cannot withdraw or amend the information that I have provided.
- I understand that the electronic copy of the thesis that produced from the research will be become widely available as it will be lodged permanently in the University digital: Research Common.
- I understand that my real name or other identifying information will not be used in the report of this research.
- I understand that my information will be recorded.
- I understand that records will remain confidential until the data is analyzed and reported and then it will become accessible.
- I understand that the researcher will also do some informal observation in the environment of my preschool.
- I understand that researchers will take some pictures which represent family funds of knowledge.
- I understand that the research will gather relevant documents for my preschool from review
- I understand that ethical approval for this interview has been received from The University of Waikato Faculty of Education Research Ethics Committee.
- I understand that if I have any further concerns regarding this interview which I would prefer not to discuss with the interviewer, I can contact:

Dr. Jeanette Clarkin-Phillips

Phone (+64) 7 838 4466 Ext 4875

Email : jeanette.clarkin-phillips@waikato.ac.nz

Associate Professor Linda Mitchell

Phone (+64) 7 838 4466 Ext 7734

Email linda.mitchell@waikato.ac.nz

I agree to take part in this interview.

Signed: _____

Date: _____

APPENDIX G

Informed Consent Sheet for Parents

Exploring funds of knowledge in Timorese Families and their use in education

I, _____ have read the information form about this research and have discussed and clarified any concerns with Zulmira da Cruz Soares Pinto (the researcher). Therefore,

- I understand that this interview is to find out funds of knowledge that I and my family have.
- I understand that the interview will be analyzed and written as a report in the researcher's thesis as part of the completion of her MEd at the University of Waikato and the findings may also be reported in scholarly publication and conferences.
- I understand that my participation is voluntary.
- I understand that this interview will take one hour and thirty minutes with additional 20 minutes for coffee break.
- I understand that this is focus group interview, so individually I will not amend information, however clarification of information could be made during the interview.
- I understand that during the research period I have the right to withdraw my participation, but as this interview is in focus group I cannot withdraw or amend the information that I have provided.
- I understand that the electronic copy of the thesis produced from the research will be become widely available as it will be lodged permanently in the University of Waikato digital repository: Research Common.
- I understand that my real name or other identifying information will not be used in the report of this research.
- I understand that my information will be recorded.
- I understand that records will remain confidential until the data is analyzed and reported and then it will become accessible.
- I understand that the researcher will also do some informal observation in the environment of my preschool.
- I understand that researchers will take some pictures which represent family funds of knowledge.
- I understand that ethical approval for this interview has been received from The University of Waikato Faculty of Education Research Ethics Committee.
- I understand that if I have any further concerns regarding this interview which I would prefer not to discuss with the interviewer, I can contact:

Dr. Jeanette Clarkin-Phillips

Phone (+64) 7 838 4466 Ext 4875

Email : jeanette.clarkin-phillips@waikato.ac.nz

Associate Professor Linda Mitchell

Phone (+64) 7 838 4466 Ext 7734

Email linda.mitchell@waikato.ac.nz

I agree to take part in this interview.

Signed: _____

Date: _____

APPENDIX H

Event Sampling of Observation

This observation is to observe funds of knowledge that exist in the environment of the preschool, including in and outside of class. The observation will be undertaken informally. I will inform participants in advance that the observation is not to judge practice in the early years setting, but instead to record what is related to family and community funds of knowledge. The process of observation will be as follows:

1. I will be present in the preschools for the school hours, up to four days in the week.
2. I will take pictures of any object/s that teachers say demonstrates family funds of knowledge
3. I will observe the interactions between teachers and parents at students' arrival time and departure and throughout the session, using an event recording. See below.

Event Sampling

No	Categories	Number of parents or caregivers
1	Parents stay outside of the classroom for the whole session	
2	Parents and teachers talk together (conversation)	
3	Parents bring resources for the programme	
4	Parents help during the session:	
	• Prepare resources	
	• Read with children	
	• Sit alongside children and have some conversation	
	• Show children how to use resources	
	• Engage in activity with children	
Total number of parents		

APPENDIX H

Interview question for parents' focus group

Research question 1. What funds of knowledge exist within Timorese families?

1. Could you please share a little bit about you and your family?
2. Are your children regularly involved in any household chores?
3. What kinds of things do your children like to play with at home? (E.g. toys, books)
4. What responsibilities do your children take on at home? Do you encourage this? How?
5. Do your children like to play with your neighbors? What are they playing?
6. Could you explain values that you have within your families?
7. What kind of family leisure activity does your family like to do outside home or in weekends or holidays?
8. What cultural activities do your preschool children usually assist with?

Research question 2: How do Timorese families use their funds of knowledge to enhance children's' learning and development?

9. What skills and knowledge do you nurture in your children?
10. How do you nurture these skills and knowledge?
11. Have you ever talked to your children's preschool teachers about the skills and knowledge that you have and that you want your children to learn? If yes, what was the response from the teacher and then what happen after that?

Research question 3: In what ways are family funds of knowledge welcomed and used in children's preschool?

12. Have you ever been given chances to offer any specific skill that you have? If yes, can you describe what the skill is, how did you provide it and how often?
13. What is your opinion about ways for parents to get involved in this preschool?
14. Can you suggest any more strategies or actions that could be taken in order for parents to
15. Is there anything else you would like to say?

APPENDIX I

Interview question for teachers' focus group

Research question 1: What funds of knowledge exist within Timorese families?

1. Do you gather any information from parents/ families? How do you do this?
2. How important is it to you to know about children and their families' wider life
3. Do you notice any knowledge or skill that your students bring from home? What are they and what do you do with that information? Prompt: e.g. problem solving skills

Research question2: How do Timorese families use their funds of knowledge to enhance children's' learning and development?

4. What do you know about the how families encourage their children's development and learning?
5. What are common aspirations that families hold for their children?
6. Are families of your students involved in any voluntary activities at your preschool? If yes, what are these activities?

Research question 3: In what ways are family funds of knowledge welcomed and used in children's preschool?

7. How important is it to you that parents are involved in preschool?
8. In what ways do you think families might contribute to preschool?
9. Do you have any other suggestions about strategies or actions to increase parents' involvement in in preschool?
10. How do you communicate with families about their children's learning development?
11. How do you communicate with families about curriculum?
12. Is there anything else you would like to say?

APPENDIX J

Record of Number of Parents and Caregivers Bringing Children to Preschools A, B, and D and Involving in the Preschools with Different Activities Categorized

Days	Category of activities								
	Parents who stayed outside classroom for the whole session	Parents and teachers talk together (conversation)	Parents bring resources for the programme	Prepare resources during the session	Read to children during the session	Sit alongside children and have some conversation during the session	Show children how to use resources during the session	Engage in activity with children	Total number of parents and caregivers
Day 1	11	3	0	0	0	1	1	1	17
Day 2	15	5	0	0	0	0	1	1	22
Day 3	15	3	0	0	0	0	0	0	18
Day 4	10	1	0	0	0	1	1	2	15

Table 1: Preschool A

Days	Category of activities								
	Parents who stayed outside classroom for the whole session	Parents and teachers talk together (conversation)	Parents bring resources for the programme	Prepare resources during the session	Read to children during the session	Sit alongside children and have some conversation during the session	Show children how to use resources during the session	Engage in activity with children	Total number of parents and caregivers
Day 1	4	4	0	0	0	2	2	4	16
Day 2	5	12	0	0	0	2	2	5	26
Day 3	5	12	0	0	0	3	3	5	28
Day 4	7	13	0	0	0	2	2	5	29

Table 2: Preschool B

Days	Category of activities								
	Parents who stayed outside classroom for the whole session	Parents and teachers talk together (conversation)	Parents bring resources for the programme	Prepare resources during the session	Read to children in during the session	Sit alongside children and have some conversation during the session	Show children how to use resources during the session	Engage in activity with children	Total number of parents and caregivers
Day 1	9	2	0	0	0	1	2	0	14
Day 2	5	2	0	0	0	0	2	2	11
Day 3	7	2	0	0	0	0	3	0	12
Day 4	6	1	0	0	0	2	2	0	11

Table 3: Preschool C

Category of activities									
Days	Parents who stayed outside classroom for the whole session	Parents and teachers talk together (conversation)	Parents bring resources for the programme	Prepare resources during the session	Read to children during the session	Sit alongside children and have some conversation during the session	Show children how to use resources during the session	Engage in activity with children	Total number of parents and caregivers
Day 1	9	5	0	0	0	0	0	0	14
Day 2	2	2	0	0	0	0	0	0	4
Day 3	5	3	0	0	0	0	0	0	8
Day 4	6	4	0	0	0	0	0	0	10

Table 4: Preschool D