Introducing Reggio Emilia
A baseline Study at the Ndlovu Pre-schools

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SUMMARY

In 2006, a Nobel prize winner (Heckman, 2006) pointed out that high quality early childhood education and care provides one of the few effective policy means of increasing social and economic opportunities for disadvantaged (minority) communities and thereby provides a way out of the poverty trap. Therefore, the Ndlovu Care Group and Utrecht University will start the development of a pre-school intervention program for children in the rural township in the Moutse area near Elandsdoorn in South Africa. The aim of this intervention is to improve the pre-school education at the pre-schools Tholulwazi and Kopanang. The proposed intervention will include a Reggio Emilia approach to pre-school education. The aim of this research project is to explore what aspects of the pre-schools should be changed by the intervention, in order to improve the pre-school education. The context of the pre-schools will be explored in order to to promote a fit between the context and the intervention, as proposed by the Realistic Evaluation approach. Special attention is given to a Reggio Emilia approach in the context and its effectiveness to improve the pre-school quality. The main questions of this research project are: (1) What processes at the pre-schools should change by the intervention, in order to improve the pre-school education? (2) How does the context interact with these processes? (3) Would the Reggio Emilia approach to pre-school education fit the intervention and the context of the Ndlovu pre-schools? These questions were studied by a range of methods in five studies. The first study focuses on the processes that influence the childcare quality and was needed to answer the first research question. Study two to five describe the context of the pre-schools to answer the second research question. The context is structured by the systems of Bronfenbrenner's Ecological Systems Theory (Bronfenbrenner & Morris, 1998). The results showed that the current pre-school quality is limited due to a lack of materials, insufficient rest and meals of insufficient nutritional value for the children, an increased risk of injury or sickness, insufficient visual stimulation, insufficient stimulation of the social-emotional development, the needs of the teachers and caregivers were not met and paperwork at the pre-schools was not kept up to date. Results showed that the context had a big impact on these processes through the cultural orientation and the childcare beliefs of the teachers. Implementing an intervention with a Reggio Emilia approach to teaching will be a challenge but one that can bring a fruitful contribution to the learning and development of the children at the Ndlovu pre-schools.

CONTENT

INTRODUCTION

According to the economist and Nobel prize laureate Heckman (Heckman, 2006), high quality early childhood education and care provides one of the few effective policy means of increasing social and economic opportunities for disadvantaged (minority) communities and thereby provides a way out of the poverty trap. Heckman argues that the mastery of skills that are essential for economic success and the development of their underlying neural pathways follow hierarchical rules. Later attainments build on foundations that are laid down earlier. This architecture of the brain and the process of skill formation are influenced by an interaction between genetics and individual experience. The early childhood years are an especially sensitive period, in this period the development of specific neural circuits and behaviors they mediate are most receptive to environmental influences. Early childhood environments are therefore major predictors of cognitive and non-cognitive abilities. Environments that do not stimulate young children at this early age place children at an early disadvantage. Disadvantage arises more from lack of cognitive and non-cognitive stimulation than simply from the lack of financial resources. Pre-school childcare programs that provide extra stimulation are thus especially effective for disadvantaged children (Engle et al., 2007; Leseman, 2002). For this reason, the Ndlovu Care Group and Utrecht University will start the development of a pre-school intervention program for children in the rural township in the Moutse area near Elandsdoorn in South Africa. The aim of this intervention is to improve the pre-school education at the pre-schools Tholulwazi and Kopanang. The aim of this research project is to explore what aspects of the pre-schools should be changed by the intervention, in order to improve the pre-school education. The context of the pre-schools will be explored, to promote a fit between the context and the intervention. This chapter will describe the main analytic framework and the guiding concepts of this research project.

It is important to understand why an intervention should work, for who and under what conditions. An intervention does not work the same way in different circumstances because people and contexts differ. The underlying causal pathways of a problem need to be understood in order to understand *how* and predict *if* an intervention will lead to better outcomes. This basic understanding of how social processes work is described in the Realistic Evaluation approach (Pawson & Tilley, 1997). This understanding is formulated in the formula: *Context (C) + Mechanism (M)= Regularity (R)* (Pawson & Tilley, 1997). 'Context refers to the spatial and institutional locations of social situations together, crucially, with the norms, values, and interrelationships found in them' (Pawson & Tilley, 1997, p. 216). Thus the context entails a physical as well as a more social and cultural environment. Mechanisms are capacities that people posses and choices they make. Regularities are the outcomes of that interaction (Pawson & Tilley, 1997). For example: A culture that perceives toddlers as too young to learn (C) + a pre-school teacher who does not know how to stimulate the learning process of toddlers (M) = not much extra cognitive and social-emotional development for toddlers at the pre-school (R). An intervention aims at adding a blocking mechanism that will change the problem

mechanism, and thereby changes the outcomes (O). For example; A culture that perceives toddlers as too young to learn (C) + a pre-school teacher who does not know how to stimulate the learning process of toddlers (M_1) + a specialist on early childhood development that teaches the teacher how to stimulate toddlers(M_2) = higher cognitive and social-emotional development for the toddlers at the pre-school (O). The Realistic Evaluation approach helps to structure the information needed when planning an intervention and emphasizes the importance of a fit between the context and mechanisms in a planned intervention. During the research project, the Realistic Evaluation approach was used to do so. In this thesis, the theoretical background and studies will also be structured by the mechanisms and context distinction.
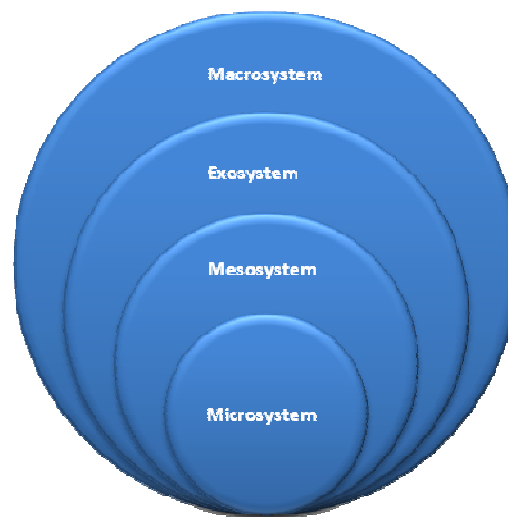
Figure 1. Bronfenbrenner's Ecological systems: a nested model of interconnected systems.

To structure the contextual influences in this study, the theoretical framework of Bronfenbrenner's Ecological Systems theory (Bronfenbrenner & Morris, 1998) will be employed. This theory places influences on child development in an ecological model, in which the experiences of the child are nested within interconnected systems (See Figure 1). The most outer ring of influences on a child is the *macrosystem*, which entails the influences of societal and cultural beliefs and practices. Within the context of the macrosystem functions the *exosystem*, the settings in which the child does not directly participate but that influence the lives of parents and other adults in the child's world. Government agencies that set regulations for childcare facilities or establish welfare-reform policies are examples of exosystem influences. The mesosystems and the microsystem operate in turn within the context of the exosystem. Within this model, interactions between the teachers and the children within the pre-school can be perceived as a part of the most direct ring of influence on child development. Such direct influences on the child are called the *microsystem* which is characterized by face-to-face

interaction. The home environment is also considered a *microsystem*. These systems may interact (for example when certain families choose certain childcare facilities) and this interactive system is named the *mesosystems* (Kontos, 1994).

The research project on the pre-school intervention program by Utrecht University currently entails two lines of research. One project studies the social-emotional and cognitive development of the children at the Ndlovu pre-schools (Van der Raadt, in press). This social-emotional and cognitive development is considered the regularity in the overall research project. The second project, that lies on the basis of this thesis has studied these mechanisms leading to these regularities and context thereof. The mechanisms of the project are the processes that determine childcare quality at the pre-schools. Childcare quality is defined as the settings that supports optimal learning and development (Marshall, 2004). The capacities and the choices of the pre-school teachers determine the childcare quality. The context of these quality processes is structured by the Ecological Systems Theory and includes the general childrearing beliefs in the cultural setting, the educational policies, the caregiver involvement with the pre-schools and the childcare specific beliefs of the pre-school teachers. This context influences the processes that determine the quality of the pre-school education, the regularity (Figure 2).
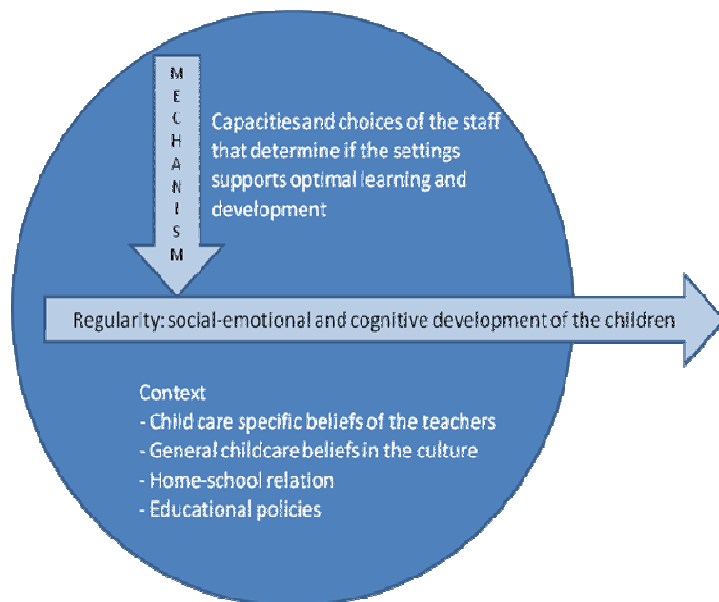
Figure 2. The relation between mechanism, regularity and context in the current study.

The aim of the intervention is to develop an approach to pre-school education that combines a strong community orientation, involving arts and crafts people from the community, with a state-of-the-art education and care program, with an open character that leaves room for local adaptations. A possible candidate or model to be followed is the Reggio Emilia approach to pre-school education. Therefore, we need to know if the most essential and basic ideas regarding early childhood education underlying the Reggio Emilia fit within the context of the Ndlovu pre-schools. This paragraph will describe the

theories of development and learning underlying this approach and four main characteristics of the approach.

The approach started in a town called Reggio Emilia in northern Italy shortly after World War II. Parents within the community started to build a school with their own hands, with proceeds from the sale of a tank, some trucks and a few horses (Gandini, 1993). The essential role and intimate involvement of parents and the community in their children's education is a fundamental element of the Reggio Emilia Approach. Piaget's genetic epistemology and the work of Vygotsky have largely influenced the Reggio Emilia approach to education. According to Piaget's genetic epistemology theory, knowledge acquisition involves the assimilation and accommodation of information arising from children's empirical experiences to their developing schemas and representation of the external world. Assimilation and accommodation result in the development of increasingly complex mental skills through stages, culminating in the adult achievement of formal operations. It follows from this theory that learning experiences for young children should target their current developmental abilities (Bredekamp, 1987). The cognitive constructivist approach developed from this theory assumes that the most effective means of educating young children is to ensure that early childhood education provides learning experiences that target the current developmental abilities of the children (Edwards, 2003; Bredekamp, 1987). However, other theorists started to question the cultural appropriateness of developmental theory for all children. Accordingly, Piaget's theory was restricted to a population and (cultural) context and was therefore insufficient to inform the early childhood curriculum of a broader population (including other cultures, female students and differing socio-economic status groups). Instead, development should be viewed as a social construction, always contextualized in relation to time, place and culture (Dahlberg et al., 1999). Vygotsky challenged the notion of a universal description for development, by emphasizing the role of culturally mediated social interactions in children's learning. According to Vygotsky, children learn knowledge practices of their host communities when they interacted with others. Development is viewed as a process that occurs at the interpersonal and intrapersonal level and involves acquisition of different knowledge practices and psychological tools (such as language). The development of intellectual ability of young children is a function of social interaction contextualized in a cultural setting. The Reggio Emilia approach is influenced by the cognitive constructivist approach of Piaget's theory of genetic epistemology and the socio-cultural view emerging from Vygotsky's work, which led together to a social-constructivist approach.

The historic context and the theories of learning and development have led to four important themes for the Reggio Emilia the approach. The first theme is *working with projects*. Projects are the preferred form of instruction and learning in the Reggio Emilia approach. According to the cognitive constructivist view, children have an innate desire to discover, learn and make sense of the world. While engaging in a project, children have the opportunity to explore, observe, question, discuss, hypothesize, represent, and then revisit their initial observations and hypotheses to further refine and

clarify their understanding (Hewett, 2001; Malaguzzi, 1993). Teachers have to observe and listen to the children to gain insights in their development, learning and interests, in order to be able to facilitate projects that interest the children.

The second themes concerns *interaction and collaboration*. Interaction and collaboration (among children and between children and teachers) are necessary for learning, according to Piaget and Vygotsky. Knowledge is constructed through relationships with others around the child (Malaguzzi, 1993). Collaboration, dialogue, conflict, negotiation and cooperation with peers and adults are crucial for such construction (Gandini, 1993). Only when children articulate to others what they believe to be true, they come face-to-face with errors in their thinking. The Reggio Emilia approach is in line with Vygotsky's ideas concerning language, as Malaguzzi (1993) stated, "[Vygotsky] reminds us how thought and language are operative together to form ideas and to make a plan for action." (p.79). Children's communication through language (expressed through verbal communication, painting, dancing etc.) is considered essential to bringing meaning to knowledge within the Reggio Emilia approach.

The third theme is *art,* understood as any open form to express one. The ability to express one in multiple modes is valued as contributing to the advancement of knowledge, since those representations create new possibilities and generate new questions. There are multiple ways of expressing knowledge and children are encouraged and facilitated to represent their plans, ideas and understandings using several modes of expressing including sculpture, drawing, painting, dance, drama, writing and puppetry (New, 1990).

The fourth theme is *caregiver and community involvement*. Interaction and co-construction do not end at the school gate. Parent participation is also considered essential; "Our proposition is to consider a triad at the center of education – children, teachers, and families" (Malaguzzi, 1993, p. 9). Parent participation can take many forms: day to day interaction during work in the schools, discussion of educational issues, excursions and celebrations. Not only parents, but the whole community is important. The relation with the neighbourhood is a frequent subject of exploration for the children, because the neighborhood is an important part of their life. The relation with the neighbourhood is also important for the participation of parents in the school.

The next chapter will provide a theoretical background for the studies of this research project. The first paragraph will discuss the central mechanism, processes that determine childcare quality. This will lead to a better understanding of how childcare quality influences child development and how such quality will be measured and evaluated. The subsequent paragraphs will discuss the context in which the mechanism is embedded, structured by the Ecological Systems Theory (Bronfenbrenner & Morris, 1998). Chapter three describes the five exploratory baseline studies conducted for this research project. The general discussion in chapter four will combine the findings of the studies in order to give an answer to main research questions:

1) *What processes at the pre-schools should change by the intervention, in order to improve the pre-school education?*
2) *How does the context interact with these processes?*
3) *Would the Reggio Emilia approach to pre-school education fit the intervention and the context of the Ndlovu pre-schools?*

THEORETICAL BACKGROUND

The mechanism of pre-school education

The aim of the pre-school intervention program by Ndlovu Care Group and Utrecht University is to improve the social-emotional and cognitive development of children at the pre-schools in order to increase their social and economic opportunities and thereby providing a way out of the poverty trap. Pre-school education is thus a mechanism that influences child development (Heckman, 2006). The effectiveness of this mechanism can be expressed by childcare quality, which is defined as the settings that support optimal learning and development (Marshall, 2004). Structural characteristics of quality are quantitative aspects or organisational characteristics of childcare. These include the staff-to-children ratio, the group size, the education of the childcare workers and financial issues such as parental contribution and wages of childcare workers (Vermeer et al., 2005; Marshall, 2004). The features of structural quality can be regulated, and many governments set minimum standards for aspects of structural quality in center-based care. Research has found that structural quality characteristics (Arnold & Doctoroff, 2003; National Institute of Child Health Development (NICHD) and Early Child Care Network (ECCN), 2003) are related to children's development. Process quality is another quality aspect and refers to the care that children experience, such as the interactions children have with the childcare workers, activities and materials which they are engaged with(Marshall, 2004; Philipsen, Burchinal, Howes & Cryer, 1997). Several studies have pointed to the importance of high quality in pre-school education to enhance children's cognitive and social development (Burchinal & Cryer, 2003; Peisner-Feinberg, et al., 2001). Also, a relation between several structural characteristics and process quality of pre-school education has been found (Philipsen et al., 1997). Especially, process quality was higher in classrooms with teachers with more education, a moderate amount of experience, and higher wages. In a large study of multiple sites, they found that group size, child-to-teacher ratios, teacher's general education level and special training in early childhood education and teacher wages have a strong effect on process quality (Phillips, Mekos, Scarr, McCartney, Abbott–Shim, 2000). Long-term benefits have been found for disadvantaged children such as higher verbal and mathematics achievement, greater success at school (i.e.; less grade repetition, higher graduation rates), higher employment and earning levels, better health outcomes, less welfare dependency, and lower crime rates (Currie, 2001; Currie & Thomas, 2001) in developed countries. Most of these studies have been conducted in countries such as Sweden, the UK and the USA (Andersson, 1992; Burchinal et al., 2000; NICHD ECCN, 2002; Sylva et al., 2004).

Few pre-school programs in developing countries have been evaluated (Boocock & Larner, 1998). Studies in Botswana, India, Colombia, Thailand and Turkey show some benefits in terms of later primary school achievement and reduced dropouts (Kagitcibasi, Sunar, & Bekman, 2001; Taiwo & Tyolo, 2002; World Health Organization, 1999). These findings confirm those from northern

countries. However, to understand *how* such a program influences child development, not only the difference in outcomes between children with and without pre-school education should be studied. In order to understand what makes the program work, an exploration of the effective mechanism is needed (Pawson & Tilley, 1997).

Therefore, structural and process quality characteristics of pre-school education should be studied in order gain insight in the mechanisms by which pre-school education affects child development. The Ndlovu Care Group and Utrecht University will implement an intervention that changes the structural and/or process characteristics of the pre-school education program and thereby aims to promote child development. Insight in the current structural and process quality can suggest mechanisms that should be targeted by the upcoming intervention. It also provides a baseline of the current quality level of the structural and process characteristics that could be used to assess the effect of the intervention.

Secondly, the fit between a Reggio Emilia approach and the current structural and process quality is needed. As a part of this intervention, a Reggio Emilia approach to pre-school education is considered. When results show that quality characteristics needed for a Reggio Emilia approach are not available, this would mean that the intervention should targeted these characteristics *or* the conclusion is that Reggio Emilia is not suitable for the pre-schools.

This leads us to the first research question; *What is the current quality of the pre-schools of the Ndlovu Care Group? This research question can be further specified into; (a) What is the current structural quality of the pre-schools of Ndlovu? (b) What is the current process quality of the pre-schools of Ndlovu?*

The context of pre-school education

In order to understand the effect of the childcare quality on the development of the children at the pre-schools we should realize that such mechanisms are embedded in a context that determines the effect of the mechanism (Pawson & Tilley, 1997). In the next section, micro-, meso-, exo- and macrosystem influences that affect the relation between childcare and child development will be discussed. We will start with the broadest indirect system of influence (macrosystem) and end with the most direct system of influence (microsystem) on the child.

1.   General Childrearing Beliefs in the Macrosystem

According to Harkness and Super (1994), culture can be thought of as providing the organization of the developmental environment that generates meaning and relationships between variables in the environment. Culture influences the development of the child through the social setting of children's everyday life, the culturally regulated customs and practices and the childcare beliefs of the caretakers. Cultural belief systems on childrearing can be defined as a set of cognitions that parents and other caregivers personally hold about the nature of children and their development, and about their

functioning in social groups, such as the peer group, the family, the community, and society at large. Belief systems include values and norms regarding children's personal and social development, and specify appropriate strategies to socialize these values and norms (Harkness & Super, 1999; Huijbregts, Leseman & Tavecchio, 2008). Harkness and Super (1999) state that the childrearing beliefs of caregivers basically stem from two sources: everyday personal experiences with childrearing in a particular contexts, and socially shared cultural beliefs on childrearing within particular communities. Huijbregts and colleagues (2008) add that these sources are dynamically interrelated:

> Socially shared cultural beliefs provide the schemes for interpreting and evaluating particular events in situations of childrearing, for defining action goals and deciding upon action strategies to obtain these goals. Psychologically, processes of cognitive reconstruction, or deduction, are involved, which transform cognitions from shared and general into personal and situation-specific. In turn, personal experiences are, through processes of cognitive construction, or induction, combined into new general ideas that are shared with fellow members of the cultural community. Through these recurrent dynamics of caregivers' reasoning, cultural childrearing belief systems are both organizing experience as well as adapting to experience, providing caregivers with guidelines and reassurance while changing to meet new challenges. (p. 234)

Such cultural childrearing beliefs can be further differentiated into general childrearing beliefs and childcare specific beliefs. General childrearing beliefs are the underlying implicit ideas about the nature of children and their development (Harkness & Super, 1999). According to Huijbregts and colleagues (2008), an important source for the general childrearing beliefs of caregivers are the cultural beliefs of caregivers' cultural communities. Childcare specific beliefs are more directly linked with childcare in a care center and these ideas are solutions to everyday problems (Harkness & Super, 1999). Such beliefs are influenced by colleagues and education about childcare where childcare workers discuss childrearing approaches and best practices. When shared beliefs are transformed into new, personal beliefs (Huijbregts et al., 2008) such discussions provide an important source for caregivers' childcare specific beliefs (Rosenthal, 1991).The cultural belief systems that influence the general childrearing beliefs vary substantially across cultural communities (for an overview, see Bugental & Johnston, 2000).

Childrearing beliefs of child care workers have a large influence on the child care practices within pre-schools and thus on the process quality (Charlesworth, Hart, Burts, Mosley & Fleege, 1993). A way to address cultural differences in such beliefs is by exploring differences between cultures on the five-dimension of cultural values by Hofstede (2001). Hofstede has described five dimensions on which cultures can differ and which have an effect on teaching beliefs and practices (1986). The first dimension of culture is called *Individualism*, as opposed to *Collectivism*. It describes the relationship between the individual and the collectivity that prevails in a given society. Individualist cultures assume that any person looks primarily after his/her own interest and the interest

of his/her immediate family (husband, wife and children). Collectivist cultures assume that a person belongs to one or more tight "in-groups," from which he/she cannot detach him/herself. The "in-group" protects the interest of its members, but in turn expects their permanent loyalty. A collectivist society is tightly integrated; an individualist society is loosely integrated. The second dimension, *Power Distance*, defines the extent to which the less powerful persons in a society accept inequality in power and consider it as normal. Inequality exists within any culture, but the degree that is tolerated varies between cultures. The third dimension, *Uncertainty Avoidance,* defines the extent to which people within a culture are made nervous by situations which they perceive as unstructured, unclear, or unpredictable, situations which they therefore try to avoid by maintaining strict codes of behavior and a belief in absolute truths. Cultures with strong uncertainty avoidance are active, aggressive, emotional, compulsive, security-seeking, and intolerant; cultures with weak uncertainty avoidance are contemplative, less aggressive, unemotional, relaxed, accepting personal risks, and relatively tolerant. The fourth dimension, *Masculinity* as a characteristic of a culture opposes F*emininity.* The two differ in the social roles associated with the two sexes, and in particular in the social roles attributed to men. The cultures labeled masculine strive for maximal distinction between what men are expected to do and what women are expected to do. Men are expected to be assertive, ambitious and competitive, to strive for material success, and to respect whatever is big, strong, and fast. Women are expected to serve and to care for children and the weak. Feminine cultures, on the other hand, define relatively overlapping social roles for the sexes, in which men need not be ambitious or competitive. The fifth dimension, opposes *Long Term Orientation* to *Short Term Orientation*. The dimension makes a distinction between cultures/people who are focused on here and now (short term orientation) and people/cultures who are focused on what is to come, the future (long term orientation). Values associated with Long Term Orientation are thrift and perseverance; values associated with short term orientation are respect for tradition, fulfilling social obligations, and protecting one's 'face'.

The cultural values in a community influence childrearing beliefs which in turn influence the childrearing practices (Huijbregts et al., 2008). Therefore, it is important to assess the fit of these cultural values with a Reggio Emilia approach. This leads us to the second research question; *What is the cultural value orientation in the community of the teachers at the Ndlovu pre-schools?*

2. Educational policies in the exosystem

The second contextual system that will be discussed is the exosystem. Children do not directly participate in these settings but they influence the lives of caregivers and teachers in the child's world. Specifically, South African social policies impact the education of the children. When governments in developing countries provide policies, regulations and means for pre-school education, this can be understood as a form of social protection. Social protection offers the potential means for addressing the multiple factors causing persistent poverty and rising vulnerability (Ellis, Devereux & White, 2009). Social protection can be classified by its function: protection, prevention and promotion. Social

protection functions by making children less vulnerable (by helping them to build assets and achieve stronger livelihoods), and is therefore directed at escape from poverty traps (Ellis, Devereux & White, 2009). Social protection in the form of pre-school education in South Africa is devised and delivered by the government and Non Governmental Organizations (NGOs). In some cases the pre-school education is supported by a NGO or the government only and in other cases by a combination, for example when the government financially supports a pre-school, set-up by an NGO. The Ndlovu pre-schools are set up by the NGO Ndlovu Care Group and supported by the government. The following section will shortly discuss the targeting, delivery and coverage of the social protection program of the government that supports pre-school education.

The South African government has identified early childhood development as a key area in the process of reconstruction and human resource development and in promoting the rights of young children. The *White Paper on Education and Training* (South Africa, 1995) defines the government's commitment to young children, including their intention to pre-school education. In 2001 this led to the *Education White Paper 5* on early childhood development (ECD) (South Africa 2001), which introduces a national reception year system (grade-r) for all children aged 5 years, with a priority for the poorest children. The focus of the education is on literacy, numeracy, and life skills. Principles for programming include holistic development of the child, contextually and developmentally appropriate activities, a focus on human rights and values in the curriculum, and opportunities to play and learn informally through experience (Biersteker, Ngaruiya, Sebatane & Gudyangam 2008). The commitment to early childhood development is poverty targeted, which is expressed by the higher grants for poorer schools and children (but wealthier provinces and higher income groups have higher levels of access to high quality of pre-school education) (Biersteker & Dawes, 2008). Despite the importance of the early years in education, ECD spending constitutes a very small share of national and provincial expenditure, and shows a large gap in resource allocation with primary education (on average, allocations for ordinary schooling were 13 times that of ECD).

To receive funding, pre-schools have to be registered at the provincial Department of Social Development. For such registration, pre-schools have to satisfy with the minimum standards for early childhood development services (South Africa, 2007). Recently, the Ndlovu pre-schools requested such registration and satisfied these minimum criteria and will therefore be provided with funding in the near future. Besides these minimum standards, the Department of Social Development has also defined guidelines for pre-schools with a higher quality standard in mind. The guidelines discuss: the premises and equipment, health, safety and nutrition, management, learning methods, educator information, and working with families.

The compliance of the Ndlovu pre-schools with these guidelines is an additional quality assessment for the Ndlovu pre-schools. The advantage of such guidelines is that they are tailored to the specific context of pre-schools in South Africa. Therefore they may point to issues that require attention in this specific context that are not covered by international quality assessment instruments.

Thus, the contextual setting of educational policies is used to find additional mechanisms that could be improved by the intervention. These guidelines have not been assessed by the government nor the Ndlovu pre-schools themselves. Therefore our third research question is: *Do the Ndlovu pre-schools meet the quality guidelines for early childhood services set by the South African Department of Social Development?*

3.   The mesosystems of caregiver school relations

Research suggests that parental involvement in education is an important factor for building social and academic competence (Booth & Dunn 1996, Reynolds et al. 1992). Research found that increased parental involvement in school reduced the negative effects of poverty on educational achievement and socio-emotional adjustment (Marcon 1999, Reynolds 1991, Shumow et al. 1999). Successful early intervention programs increase parental involvement (Miedel & Reynolds 1999), and interventions produced long-term effects on achievement and grade retention (Reynolds 1992; Reynolds, Ou & Topitzes, 2004). The available evidence, summarized in a number of recent reviews, indicates that centre-based pre-school education combined with activities to involve, educate and support parents, is most effective in promoting social and academic competence (Arnold & Doctoroff, 2003; Blok et al., 2005; Ramey & Ramey, 2004).

The question is, however, what parental involvement is. Parental involvement has been inadequately defined in the empirical literature (Fantuzzo, 2000) and is typically represented by small sets of survey items that failed to delineate the multiple ways in which parents can be involved in their children's education. Epstein (1995) has classified parental involvement behaviours into six categories of influence, from proximal home influences to the more distal community influences. Involvement can be home-based, when parents meet their children's most basic needs and when parents establish a positive learning environment for their children (such as providing learning materials and space for learning activities). School based involvement concerns communication between family members and school staff on specific child issues or active participation in school activities. Involvement can also be more distal, when parents participate in decision-making processes related to school governance and political issues that affect children. The advantage of this framework is that it asks for a more specific definition of 'parental involvement' than when scholars state that parental involvement has a positive effect on child development.

A second issue concerns the effect of the cultural context on parental involvement and its effects. What is considered as relevant involvement behaviors is culturally dependent. There are several reasons why the effect of parental involvement in the context of Elandsdoorn is different than in Western European countries. First, educational levels are low in Elandsdoorn, more than 45% of the population between 18-64 years had no education at all in the year 2007 (Brandts, 2009). Secondly, general patterns of parental involvement are different in Southern Africa. This has at least three causes. First, there are high rates of adult mortality caused by (among others) high death rates

due to HIV/AIDS. In 2006, HIV prevalence in Limpopo was over 20% (Brandts, 2009). Caregiver mortality is the primary cause of disruption in children's attachment relationships in Sub Saharan Africa (Liddel, 2002). These children are taken in with extended families, go into orphanages or become child-headed households (Lidell, 2002). Secondly, parental involvement should be taken a little bit broader in the South African setting due to cross-fostering. Cross-fostering is a long-standing practice in Africa of child exchange within families. Women who have been prematurely widowed or elderly people whose own children are no longer in regular contact with them may be given a child by a relative. This may occur when the child is in middle childhood and can contribute immediately to the foster household's domestic economy or in infancy when the gains to the foster household may be more diverse and longer term. In turn, there may be immediate gains or more long-term guarantees of assistance at times when it is needed for the donor. Cross-fostering is one of many traditional routes to ensuring reciprocity and obligation in extended families (Lidell, 2002). Thus, involvement of caregivers in school related practices is better termed caregiver involvement than parental involvement in South Africa.

Caregiver involvement is an important theme in the Reggio Emilia approach. Therefore it is important to gain insight in the current frequency and forms of caregiver involvement. When results show that caregiver involvement is low, the upcoming intervention might try to increase it. The discussion above has pointed out that such involvement may take different forms than in Western countries. An exploration of the possibilities for caregiver involvement is needed. This leads us to the fourth research question; *What is the current level of caregiver involvement and how could this caregiver involvement be extended in the future?*

4.   The pre-school microsystem

Microsystems are the most direct systems of influence on a child and the pre-school is one such system. Interactions, activities and materials at the pre-school have a direct impact on children and thereby influence his/her development (Marshall, 2004; Philipsen, Burchinal. Howes & Cryer, 1997). Several studies in pre-school settings have demonstrated the importance of teachers' developmental beliefs on the characteristics of the pre-school (e.g., Abbott-Shim, Lambert, & McCarty, 2000; Philips, Mekos, Scarr, McCartney, & Abott-Shim, 2000). According to Harkness and Super (1999) these childrearing beliefs of caregivers basically stem from two sources: everyday personal experiences with childrearing in a particular contexts, and socially shared cultural beliefs on childrearing within particular communities. In the discussion of the macrosystem we already discussed the influence of cultural beliefs on childrearing; these have a large impact on the general childrearing beliefs of caregivers (Huijbregts et al., 2008). Everyday personal experiences with childrearing, the childcare specific beliefs, are more directly linked with childrearing in a childcare center and thus have the highest impact on the direct world of the child, the microsystem (Harkness & Super, 1999).

The National Association for the Education of Young Children (NAEYC) has pointed out five important themes with regard to childcare specific beliefs of child care workers (Copple & Bredekamp, 2009). The first theme concerns the *learning environment*. It describes a learning environment that supports all children to develop and learn. This requires a physical, emotional and cognitive conducive environment which is experienced as safe and promotes exploration. The second theme concerns *teaching methods* to enhance development and learning. According to NAEYC, education should provide an optimal balance of adult-guided (experience proceeding primarily along the lines of the teacher's goals) and child-guided experiences (experience proceeding primarily along the lines of children's interests and actions). The teacher should take responsibility for stimulating, directing, and supporting children's development and learning by providing the experiences that each child needs. The third theme concerns *the curriculum*. Copple and Bredekamp (2009) argue that the goals which are important in young children's learning and development should be identified and clearly articulated in order to be able to develop an effective curriculum that targets these goals. The fourth theme concerns the *assessment* of children's development and learning. The NAEYC argues that assessment of children's development and learning is essential in order to plan, implement, and evaluate the effectiveness of the classroom experiences and to monitor children's progress toward a program's desired goals. The fifth theme concerns the *relationships with families*. Copple and Bredekamp (2009) argue that practitioners should involve families as a source of information about the child and engage them in the planning for their child.

Childcare specific beliefs on these five themes have a big influence on the childcare in a pre-school. At the same time, practices and discussions about good childrearing in a pre-school also influence the childcare specific beliefs of teachers in a pre-schools (Rosenthal, 1991). These discussions and practices form a dynamic system together with the childcare specific beliefs (Huijbregts et al., 2008). When an intervention is implemented that includes a new approach to teaching, this will influence that dynamic system. On the one hand, the beliefs at the pre-school determine how well the intervention fits and on the other hand, the intervention influences and changes beliefs at the pre-school. On this way the dynamic system changes. The proposed intervention would implement a Reggio Emilia approach at the Ndlovu pre-schools. How well this intervention fits with the childcare beliefs of the teacher depends on the fit between these beliefs and the beliefs underlying Reggio Emilia. Therefore our fifth and final research question is: *What are the childcare specific beliefs of the teachers at the Ndlovu pre-schools?*

FIVE EXPLORATORY BASELINE STUDIES

Five exploratory baseline studies will be conducted to gather the information that is needed to answer the three main research questions: (1) What processes at the pre-schools should change by the intervention, in order to improve the pre-school education?, (2) How does the context interact with these processes? And (3) Would the Reggio Emilia approach to pre-school education fit the intervention and the context of the Ndlovu pre-schools? Study 1will focus on the mechanisms that influence the childcare quality and will answer the first main research question. Study 2 to 5 will describe the contextual influences which are needed to answer the second main research question. The studies are structured by the systems of Bronfenbrenner's Ecological Systems Theory. For the final research question, the results of the studies will be combined with our knowledge concerning Reggio Emilia. Table 1 provides an overview of the research questions per study.

Table 1

An overview of the research questions of this study

1. What is the current quality of the pre-schools of the Ndlovu Care Group? This research question can be further specified into; (a) What is the current structural quality of the pre-schools of Ndlovu? (b) What is the current process quality of the pre-schools of Ndlovu?
2. What is the cultural value orientation in the community of the teachers at the Ndlovu pre-schools?
3. Do the Ndlovu pre-schools meet the quality guidelines for early childhood services set by the South African department of social development?
4. What is the current level of caregiver involvement and how could this caregiver involvement be extended in the future?
5. What are the childcare specific beliefs of the teachers at the Ndlovu pre-schools?

In this study, the underlying theoretical ideas to the Reggio Emilia approach are specified and the cultural fit of these ideas are tested within a non Western country. The basis of the Reggio Emilia approach is still very child-centered and thereby differs on central issues from a more didactic approach that is found in more traditional educational styles (Stipek & Byler, 2004). Similar, the Reggio Emilia approach assumes active caregiver involvement, based on Western studies of effectiveness of such combination models. However, little is known about the cultural beliefs of parents and educators in Africa concerning parental involvement in education. By specifying the underlying ideas of the educational approach and their fit within an African culture, this study may help us to gain a better understanding in the effectiveness of implementing Western education interventions in non Western countries. Also, this study will explore the practical use of a Western measure for childcare quality in an African setting. Whether the constructs measured are valid in

another culture and whether they contain superfluous constructs or miss constructs are the main questions. This study follows the Realistic Evaluation approach from a very early start, even before the intervention is implemented. This study will show if the Realistic Evaluation approach is helpful to create effective interventions at an early stage of an intervention. The societal relevance of this study lies in the central aim of the research; to improve the pre-school education for children in the Moutse rural area in South Africa. According to Heckman (2006) high quality early childhood education and care provides one of the few effective policy means of increasing social and economic opportunities for disadvantaged communities and, therefore, for society as a whole. To develop such a program, knowledge is needed of the current situation of the pre-schools within the cultural context and the opportunities within that situation. Thereby, a pre-school educational model that is based on evaluated best practices that fits the cultural and practical context of the Ndlovu pre-schools can be developed (Pawson & Tilley, 1997).

To understand the current situation of early childhood education in the Moutse area, a multidisciplinary and a cultural sensitive approach is needed. Developmental psychology provides us with knowledge on early childhood education. These theories provide the theoretical framework for the Reggio Emilia approach and point to the central beliefs concerning early childhood within the approach. Pedagogy complements this with insights on the effect of interactions between child and the social world around him (see, e.g.; IJzendoorn & de Frankrijker, 2005; Bronfenbrenner & Morris, 1998), in this case specifically in the context of childcare (Van Bragt, 2007; Leseman, 2002; Justice, Mashburn, Hamre & Pianta, 2008). However, the psychological and pedagogical processes described may function differently in a South African setting that strongly diverges from Western culture, where most of the psychological and pedagogical knowledge is developed (Triandis & Gelfand, 1998). Therefore, an understanding of the cultural belief systems and the impact thereof on child development and childcare should be taken into account (see, e.g; Huijbregts, 2009; Super & Harkness, 1996), which necessitates a cultural sociological approach.

Study 1. The Mechanism of Childcare Quality

To understand how process and structural characteristics of the pre-school education affects child development, the current process and structural quality should be studied. Therefore the research question of the first study is; *What is the current quality of the pre-schools of the Ndlovu Care Group? This research question can be further specified into; (a) What is the current structural quality of the pre-schools of Ndlovu? (b) What is the current process quality of the pre-schools of Ndlovu?*

Method

Measurement

To explore the current quality of the Ndlovu pre-schools, the structural and process quality will be assessed. The structural quality of the pre-schools is measured by quantitative, organisational characteristics of childcare. These include the staff-to-children ratio, the group size and the gender, education, experience, and wages of the childcare workers.

The process quality is measured by characteristics of the care that children experience. These include the interactions in the group, activities and materials. Process quality was measured by the Early Childhood Environmental Rating Scales (ECERS-R; Harms, Clifford & Cryer, 1998). This instrument has not been validated in a rural (South) African setting. Yet, the ECERS-R has been used as a tool to measure the current status of childcare in rural Bangladesh (Aboud, 2006). The ECERS-R assesses childcare quality for children from two- and-a-half to five years old. The ECERS-R includes seven sub-scales: Space and furnishings, Personal care routines, Language reasoning, Activities, Interaction, Programme structure and Parents and staffing. The total 43 items of ECERS-R are scored on a seven-point answering scale with indicators 1 (inadequate), 3 (minimal), 5 (good) and 7 (excellent). "Inadequate" care is care that doesn't live up to basal care giving-needs, "minimal" care is care that lives up to basal development-needs, "good" care is care that goes further and is aimed at the development of children and "excellent" care is high-quality care with individual and personal care. An overview of the sub-scales and the items can be found in Appendix I.

Procedure & respondents

The structural quality was assessed by interviews with the teachers to assess their characteristics (education, experience and age). Group sizes were based on attendance registers. To measure process quality with the ECERS-R, structured observations by means of rating scales were conducted during a day of observation for each pre-school classroom. These observations were conducted by two raters. Before this assessment of the pre-schools, the raters practiced with the quality assessment in an unrelated school in the nearby town of Groblersdal, to get familiar with the assessment procedure and to promote consensus about rating the items. Inter-observer reliabilities were calculated, comparing the ratings made by two observers. Across all items, there was full agreement on the 1–7 score assigned on 71.9% of the items, a rating difference of 1 on 6.3%, a difference of 2 on 6.9% of the

items and a difference of 3 on 5%. All items lacking agreement were discussed by the raters until consensus was reached.

Analysis

To analyze the structural data, the gathered data will be compared with governmental guidelines of early childhood development services (South Africa, 2007). The ECERS-R data are analyzed on two ways. First, a distinction will be made on scales that score inadequate, minimal and above to compare the standards of the pre-schools with European/Unites States standards. Secondly, to create a comparative standard, an overall average score for both schools will be calculated. The relative score per school and per scale will be discussed, based on this average. The next paragraph will zoom in to the effects of this quality on the main themes of Reggio Emilia; working with projects, interaction and collaboration, art and caregiver and community involvement.

Results

Structural quality

An overview of the structural characteristics of the pre-schools on the group- and caregiver-level is given in Table 2. The South African Department of Social Development has set a minimum for the qualification of early childhood development services (which include pre-schools); a basic certificate in early childhood development at the National Qualifications Framework (NQF) level 1 of the South African Qualifications Authority. This qualification entails basic knowledge and skills about child development from birth to nine years. The minimum required to teach grade-r is level 4, which requires a general understanding of early childhood development from birth to nine years. Table 2 shows that all teachers at the pre-schools have a NQF level 4. An early childhood practitioner must be adequately supervised especially during the first three years of working with young children in an informal or formal ECD site. Table 2 shows that all teachers have at least 6 years of experience with working in a pre-school setting. This qualifies all teachers as ECD site supervisors.

The department of social development does not set a maximum group size or staff-to-children ratio. Instead, they state that 'each child must have enough space to move freely, meaning there must be 1,5 m² of indoor play space per child and 2 m² of outdoor play space per child'. Since all occupied classrooms have a surface of 45 m², this would imply that 30 children would be permitted in each group. Since these regulations do not provide any information about the staff-to-children ratio and the groupsize, regulations from the Municipal or Communal Healthservice (Gemeentelijke of Gemeenschappelijke Gezondheidsdienst' in The Netherlands is used as a guideline. The regulations for childcare for children from the ages of null to four years state that the maximum amount of

children present in a group at one time[1] is sixteen children. The toddler group of Tholulwazi pre-school   exceeds this maximum with eleven children, the Kopanang pre-school with seventeen children. For toddlers in the age range from two to four years, a staff-child ratio of one staff member for every seven children is set in The Netherlands. This would require four staff members at the toddler group in Tholulwazi and five staff members in Kopanang. Dutch standards for the grade-r group are found in regulations for after school care which ranges from four to 12 years. These state a maximum of 20 children in a group. The grade–r group of Tholulwazi pre-school exceeds this maximum with six children, the Kopanang pre-school does not exceed this maximum. A staff-child ratio of one staff member for every ten children is set in The Netherlands. This would require three staff members at the group in Tholulwazi and two staff members in Kopanang.

Table 2
Structural characteristics

	Tholulwazi pre-school			Kopanang pre-school		
	Range	M	SD	Range	M	SD
Caregiver characteristics						
Level of training (NQF)	4	4	0	4	4*	0
Experience in childcare (years)	6 - 19	11	7	9-28	15.33	10.97
Age (years)	39-54	45.3	7.77	39-47	41.67	4.62
Classroom structure						
Group size						
Toddler		27			33	
grade-r		26			14	

* of which 2 students for NQF level 5.

Process quality

An overview of the process quality per pre-school according to the ECERS-R is given in Table 3, mean scores and standard deviations are given. The mean scores were between 'inadequate' (score 1) and 'minimal' (score 3). When the two pre-schools are considered together, the mean for the ECERS-R was 1.82 (SD = .22). For the Kopanang pre-school, the mean for the ECERS-R was 1.97 (SD = .13). Scores below the general average of 1.82 were found for the subscales 'Activities' and 'Personal care routines' and 'Space and furnishing'. Low scores on the subscale 'Activities' were mainly due to a lack of materials. These items questioned music, blocks, sand/water, dramatic play, nature/science and math/number activities, for which materials were needed that were not available. Low scores on the subscale 'Personal care routines' had more diverse causes. No greeting at arrival and departure of

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[1] This implies that there may be more children enrolled in the group, but at any moment no more than 16 children can be present.

children was observed. The nutritional value of the meals and snacks was insufficient due to a lack of financial resources. All children were expected to rest after lunch whereas not all children needed rest, so the nap/rest schedule was judged inappropriate. Since hand washing was often neglected after toileting, the toilet routine could be improved. Health practices received a low score because there was insufficient hand washing after wiping noses, the staff did not take action to cut down on the spread of germs and procedures to minimize the spread of contagious disease were limited (no exclusion of children with contagious illness or TB tests for the staff). Low scores on 'Space and furnishing' were found due to insufficient open shelves for materials and very few materials displayed in the classroom. There was no space for privacy available and the children were not allowed to play alone or with a friend while being protected from intrusion by other children. Finally, little gross-motor equipment was available.

Scores above the average were found for the subscales 'Interaction', 'Parents and staffing', 'Language-reasoning' and 'Programme structure'. A relative high score on the 'Interaction' subscale was caused by a positive score for supervision of gross motor activities, supervision was adequate to protect children's health and safety and characterized by positive staff-child interaction. The general supervision was sufficient to protect children's safety, attention was given to cleanliness and to prevent inappropriate use of materials and most supervision is non-punitive, and control was exercised in a reasonable way. Children were not disciplined with severe methods such as spanking or shouting and the expectations for behavior were largely appropriate for age and developmental level of children. Yet, the staff did not maintain enough control to prevent children from hurting one another frequently. The staff-child interaction was positively rated because the staff usually responded to children in a warm, supportive manner with cheerful voices and frequent smiling and there were few, if any, unpleasant interactions. The interaction among children was not rated positive because little staff guidance for positive peer interaction was observed and peer interaction was not actively encouraged. "Parents and staffing" was positively judged because the professional needs of the staff were served well because there was convenient access to a phone, access to some file and storage space and space for individual conferences during school hours was available. Staff interaction and cooperation was also judged positively since child-related information was communicated daily among staff, staff interactions were positive and responsibilities were shared so both care and play activities were handled smoothly. Supervision and evaluation of the staff was rated positively since there was some supervision provided for staff (the director observes informally) and there was some feedback about performance provided. However, the needs of caregivers were less well provided for because care givers and staff shared little child-related information and there were few possibilities to be involved in children's program. Provision of the personal needs of the staff were also less positive since there was no time provided away from children to meet personal needs. Also, there were few growth opportunities since there was no training provided for staff. Although the teachers within the pre-schools held frequent staff meetings, meetings with the management were scarce. An above

average score for "Language-reasoning" was found, due to the use of language to develop reasoning scales. The staff sometimes talked about logical relationships or concepts and introduced concepts that were appropriately for the ages and abilities of children in group, using concrete experiences (such as materials to explain adding and subtracting). Informal language was also judged positively since there was some staff-child conversation and children were allowed to talk much of the day. There were differences between the grade-r and the toddler group with concern to the use of books and pictures. In the toddler group few books were accessible and the staff rarely read books to children. In grade-r, more books were accessible for children and there were some staff-initiated book or story reading activities. An above average score for "Program structure" was found due to a high score for the item program structure. A basic daily schedule exists that is familiar to the children and a written schedule is posted in the room. There were also indoor and outdoor play periods and gross motor and less active play occurred daily. A drawback was that there were no child initiated activities.

For the Tholulwazi pre-school, the mean for the ECERS-R was 1.52 (SD = .20). Scores below the general average were found on the subscales 'Activities', 'Personal care routines' , 'Space and furnishing', 'Interactions' and 'Language-reasoning', Low scores for the subscales 'Activities', 'Personal care routines' and 'Space and furnishing' had similar causes as for Kopanang pre-school and will therefore not be discussed. A low score for 'Interactions' was caused by low scores in the grade-r group on all items of the subscale. This was caused by insufficient supervision to guarantee safety both during gross motor play and other activities and mainly punitive supervision. Interactions between the children were not encouraged and little staff guidance for positive peer interaction was encouraged. In the toddler group scores were especially low for interaction among children because interactions among children were not encouraged and there was little or no staff guidance for positive peer interaction.

Scores above the general average of 1.82 were found for the subscales 'Parents and staffing' and 'Programme structure' and 'Space and furnishing'. The results for the subscale 'Program structure' were similar to the results for Kopanang, since the same strengths and weaknesses were observed. The subscale 'Parents and staffing scored somewhat lower in comparison to Kopanang because the teachers reported no supervision provided by the staff, whereas this was the case at Kopanang. 'Space and furnishing' received a score above the average because interest centers were defined, visual supervision was not difficult and there was sufficient space for several activities to go on at once. Materials were displayed for children that were age appropriate but no children's work was displayed. Although there was sufficient outdoor space for gross motor play, this space was not always safe because the climbing material was damaged and the fence of the outdoor area was not closed.

Table 3

Descriptive statistics for ECERS-R

	Kopanang			Tholulwazi		
	M	SD	Range	M	SD	Range
Total ECERS-R	1.97	.13	1.87 – 2.06	1.52	.20	1.80 – 1.66
ECERS-R Subscales						
Space and furnishings	1.75	.35	1.50 – 2.00	1.88	.00	1.88 – 1.88
Personal care routines	1.33	.00	1.33 – 1.33	1.50	.00	1.50 – 1.50
Language reasoning	2.25	.00	2.25 – 2.25	1.50	.71	1.00 – 2.00
Activities	1.13	.00	1.12 – 1.12	1.13	.00	1.12 – 1.1.2
Interaction	2.90	.71	2.40 – 3.40	1.40	.57	1.00 – 1.80
Programme structure	2.00	.00	2.00 – 2.00	2.00	.00	2.00 – 2.00
Parents and staffing	2.42	.12	2.33 – 2.50	2.25	.12	2.17 – 2.33

Reggio Emilia

Projects are the preferred form of instruction and learning in the Reggio Emilia approach because they provide children with opportunities to explore, question, discuss, represent, and revisit these representations in order to further refine and clarify their understanding (Hewett, 2001; Malaguzzi, 1993). To do so, a conducive environment with material for exploration and child-centered teachers are needed. However, results show an environment that lacks materials. This is especially apparent from the low scores on the subscale 'Activities'. Exploration could also be enriched by exploring outside the pre-schools, yet low scores on safety practices (in the subscale 'Personal care routines') and supervision (in the subscale 'Interaction') together with the high child-staff ratios indicate that such exploration would come with a substantial risk. The other requirement for projects is that teachers know what interests the children and the teacher is able to adjust the projects to those interests. Yet the ECERS_R scores on the subscale 'Language and reasoning' for the Tholulwazi pre-school, and the large group sizes for both school make this a real challenge for the teachers. To do so, the teachers should go beyond individual interests and search for common interests among the children.

The ECERS-R scales of 'Interaction' and 'Language and reasoning' suggest that the Tholulwazi pre-school cannot provide what is needed for *interaction and collaboration* in a Reggio Emilia approach. Interaction and collaboration (among children and between children and teachers) is important for learning, since knowledge is constructed through relationships with others around the child (Malaguzzi, 1993). The low score on the subscale 'Interaction' implies that the quality of the staff-child interaction and the interaction among children is low. A low score for 'language and

reasoning' implies that there is little encouragement for children to communicate, language is not used to develop reasoning and the is little informal communication between teachers and children to guide their behavior. These issues are crucial when interaction and collaboration are used for the mutual construction of knowledge.

The use of art in the pre-school is measure by the item 'Art' in the 'Activity' subscale of the ECERS-R. It was found that there was no individual expression in art activities (coloring work sheets, teacher-directed projects where children are asked to copy an example). In Reggio Emilia, the aim of art is to promote thinking by expressing personal ideas and feelings by multiple modes of expression. Yet when individual expression is not allowed, there is no function of art for the Reggio Emilia approach.

Since there was not much contact between the teachers and the caregivers, not much child-related information was shared (such as informal communication, parent conferences and parenting materials). As an example, only about five caregivers came to pick up their children after school or brought their children to school in the morning. All other did not have such regular short, informal contact with their child's teacher. Also, there were few possibilities for caregivers to be involved in children's program. This makes the development of a child-caregiver-teacher triad very difficult.

Discussion

The aim of this first study was to gain insight in the mechanisms by which pre-school education affects child development. An exploration of the current structural and process quality characteristics is useful for pointing out suggestions for improvement and strong points and provides a baseline of the current quality level of the pre-schools. The structural quality of the pre-schools was inline with governmental standards. However, when the group sizes and the staff-child ratio are compared with more stringent standards such as the regulations from the Dutch municipal or communal Health service, groups are too big and there is insufficient staff for the children. The standards should not be interpreted as normative standards, since the Dutch childcare setting is more affluent and such normative standards would be unreasonable. However, they could be used as guidelines, pointing to possibilities for improvement in the future. If interpreted like that, the main recommendations would be to split the toddler groups into two and to hire additional teachers for the toddler groups.

The process quality was explored with the ECERS-R (Harms, Clifford & Cryer, 1998). Results showed that the materials, interactions and activities at the pre-school varied from inadequate to minimal. The first point for improvement on both pre-schools concerns the available material, because a lack of material caused a low level of quality for the activities at the pre-schools. Basic care on the pre-schools could also be improved, since personal care routines such as greeting and departing, meals, rest, toileting and emergencies were of inadequate quality. There was a difference between the pre-schools on the observed interaction. At Tholulwazi, supervision, discipline, staff-child interaction and interaction among children could be improved whereas this was one of the stronger points at

Kopanang. Both school showed that the relations between the staff members was a strength and their professional needs were well taken care of. The program structure is a second strength of the pre-schools, the programs are diverse and have a clear structure that is familiar to the children. At Kopanang another strength was the use of books, language and conversations to strengthen the language and reasoning of the children. This may also explain the differences found between the pre-schools in interactions; if language and reasoning are well trained this may improve the interaction at school.

Some scholars argue that standard measures of quality such as the ECERS-R, based on expertise from developed countries are as too ideal and judgmental, or inappropriately assuming a universal concept of quality (Myers, 2004; Rosenthal, 1991; Singer, 1993). During this study we found that the ECERS-R is useful because it includes a wide range of quality aspects and thereby provides a clear overview of the strong and weak points of the pre-schools. Therefore we do not agree that the ECERS-R is inappropriate in the context of this study. The labels 'inadequate' and 'minimal' should be taken lightly since a difference in quality can be expected between childcare in South Africa and Western European countries. If taken too strictly, these label become too judgmental indeed. Instead, we perceive the ECERS-R as a fruitful instrument to point to future points of improvement for the pre-schools. A drawback of the current use of the ECERS-R was that no comparisons could be made. Comparisons with European results would be inappropriate and little results are available from other developing countries. However, a follow-up evaluation of the Ndlovu pre-schools is planned. When the ECER-S is used again during this evaluation, progression of the pre-schools can be measured and the current results can be used as a comparison baseline.

The quality assessment shows some points of attention when an intervention with the Reggio Emilia approach to teaching is implemented at the Ndlovu pre-schools. During projects, the pre-schools need more materials for exploration inside the schools and/or better supervision during exploration outside the pre-school. Teachers should also know what the interests of the children are and be able to adjust the projects to that. In Study 2 and Study 5 the teacher-centered versus child-centered orientations of the teachers will be explored. After that we will be able to conclude if the teacher are willing and able to create projects that fit the interests of the children. The exploration of interactions and collaboration in the pre-schools showed that interactions among children and between children and teachers should improve in order to profit from interaction and collaboration as intended by Reggio Emilia. Similar, encouragement for children to communicate, the use of language to develop reasoning and informal communication between teachers and children to guide their behavior should be stronger in order to benefit from interaction and collaboration. Although the pre-schools have a lot of art activities, due to the lack of individual expression in art activities, they do not promote thinking as intended by Reggio Emilia. Finally, the scarce contact between the pre-school teachers and the caregivers does not allow the development of a triad between caregivers, children and teachers that will benefit the children.

Study 2. General Childrearing Beliefs in the Macrosystem

In order to understand the schemes teachers use to interpret and evaluate events in situations of childrearing, an understanding of the cultural values that influence the belief system is needed. Therefore the second research question of this study is; *What are the cultural values in the community of the teachers at the Ndlovu pre-schools?* An additional aim of this study was to find an effective way to interview the pre-school teachers. This was to see if the teachers would feel more free to speak when they were alone or together.

Method

Measurement

Interviews were conducted to assess the cultural value orientation of the teachers at the Ndlovu pre-schools. The items were based on descriptions of typical views on child rearing and education issues, organized by cultural dimension. So for example, for the dimension individualism/collectivism examples of typical individual orientated values and typical collectivistic orientated values were used to create the questionnaire (Hofstede, 1986; 2001). The interview consists of ten items, two items per value dimension. Each item contained a choice between the two statements, based on the two poles of that value dimension. The statements are included in Appendix II.

Procedure & respondents

The interviews were conducted after school time in the principal's office. During an interview the ten items were presented to the respondents and they were asked to choose one of the statements in each item. The respondent had to indicate what statement they considered more correct and why. Since an additional aim of this study was to find an effective way to interview the pre-school teachers, the interview method differed between the interviews. At the Tholulwazi pre-school, two individual interviews were held, whereas at Kopanang one interview with two teachers was conducted. This was to see if the teachers would feel more free to speak when they were alone or together. The sample size of these interviews was very small, because the research population was restricted to two schools where an intervention will take place. This means that the results of this study should not be generalized without caution.

Analysis

The interviews were taped and fully transcribed. The transcripts were coded within the framework of the cultural value dimensions. The results are interpreted for their fit with a Reggio Emilia approach. The results describe the most common reactions and differing or additional relevant reactions.

Results

The cultural values of *individualism and collectivism* describe the relationship between the individual and the collectivity that prevails in a given society. In responding to the choices provided in the interview, the respondents emphasized the importance of the collectivity. In collectivist cultures, the ingroup protects the interest of its members and expects permanent loyalty in return (Hofstede, 2001). This loyalty was apparent from the interviews when the respondents were asked who was responsible for the education of the children. Respondents reasoned that the whole family was responsible, because when the parents would not be around, the family had to take care of the education. This reasoning took the obligation of the family for granted and focused on reasons why a family member would be away. As one respondent (R_3^2) put it: 'I think the whole family. Let me say that the parents are working. Maybe the child is here at home with the family, they should help the children with the homework." One drawback of the vignette technique is that it is hard to establish a link between beliefs and actions (Brandts, 2009). Yet, behavior in line with these beliefs was found. One teacher took care of her daughter's baby; because her daughter was still in school (the teacher carried the baby on her back during teaching). Another teacher took in her sick niece and covered her medical expenses because the mother of the child could not pay for the medical treatment. In collectivistic cultures people belong to tight ingroups, from which he/she cannot detach him/herself. Therefore, conflict should be avoided and harmony is highly valued within groups (Hofstede, 2001). The concept of shame is related to this salience of the ingroup. Shame is an emotion that occurs during transgressions of societal norms and functions as a strong motivator to adapt to the group norms (Fung, 1999). One respondent reasoned that shame motivates harmony within a group (R_3): "I think that the children should always be nice to each ther. Because if the children know that this child, that maybe his father at home, maybe they fight, than that child knows and they are going to tell the other children at school. Than that child is going to feel very ashamed." There could be an age difference in this respect, because two younger respondents reasoned that arguments were needed to remain harmony in a group: "Staying nice to each other is also very important in life. As they grow up, every person has to work together or at school together, they don't have the same ideas. So in life everybody has his own idea. Every time we have to negotiate things." (R_1).

Power distance defines the extent to which the less powerful persons in a society accept inequality in power and consider it as normal. Inequality exists within any culture, but the degree of it that is tolerated varies between one culture and another (Hofstede, 2001). The reactions of the pre-schools teachers suggest a high power distance culture. Respect for adults is very important for children in high power distance cultures (Hofstede, 2001). One teacher put this quite literally when she said: "(…) the teacher is a role model of the children. And in our culture we teach the children that they should respect the adult." In classrooms with a high power distance, children are subordinate and

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[2] R (Respondent) refers to a teacher, all teachers are given a number to remain anonymous.

therefore expected to act according to the rules and wishes of the teacher (Hofstede, 1986). This results in teacher-centered/adult guided education where experiences proceed primarily along the lines of the teacher's goals. During the interview the teachers were asked whether the teacher should decide what activities take place in the classroom or the children should show initiative for activities and discussion. The teachers all agreed that the teacher should decide what activities should take place (R_1): "We have the program. If we are going to allow all the children to do their interest at any time, our program is going to be interfered." and (R_3): "The teacher teaches the children. Because if the children will chose the activity, they will all choose different activities at one day.".

In high *uncertainty avoidance* cultures, people become nervous by situations which they perceive as unstructured, unclear, or unpredictable. There is no grey between black and white. The teachers express a strong preference for such clarity, one teacher (R_4) mentions: "So bad things we must learn children, that this thing is bad and this thing is good. What they can do and what they cannot do. So why is it important? It is our culture...". In order to avoid uncertainty, strict codes of behavior are held and there is a belief in absolute truths. Transgression of gender roles is not accepted by cultures with a high uncertainty avoidance orientation (Hofstede, 2001). In response to the questions if it is ok for boys to play with dolls, one teacher responded (R_4): "In our culture, we always used to teach the boys his job and then the girls her duty. So boys should go for the cars and girls should go for the dolls." Yet these rules are more lenient for small children because they are perceived as unable to understand these rules: "They are still young and then they are just playing. We cannot avoid boys to play with dolls. Dolls are just dolls. They don't have any idea if they are a boy or a girl and they are supposed to play with cars." (R_1). Besides strict behavioral rules to avoid uncertainty, unpredictable situations are also avoided (Hofstede, 2001). Pre-school teachers show some ambivalence with concern to exploring new situations. Exploration is perceived as important for education; "I think that children should explore. As they grow up they are going to see new things. And when they are here at school, they must explore." (R_1). Yet, there is a strong emphasis on safety and structure during exploration. Another teacher (R_3) mentions: "Children should be protected from things that are maybe dangerous. Because they will damage themselves. When they see the chicken outside, maybe around the school, maybe they run to see that chicken, they can go. But if I see them, as a teacher, I should go with them, to supervise them. Because maybe around them they will find a bottle or a needle, maybe they can get damage." Supervision, restriction (don't walk around on your own) and explanation and warning should keep the children safe. There is a strong emphasis on safety: "They can't just walk around on their own, no, everything must be planned. When they do things on their own, they cannot be safe. We are here to take care of them. And safety comes first." (R_1). However, exploration can also be perceived as a way to enhance security by pointing out potential dangers to children; "(…) like in the zoo and we teach them about the dangerous things, so when he is going to see that thing he is going to know that this thing is dangerous."(R_4).

There was no clear cultural value orientation towards *masculinity or femininity*. Masculine cultures strive for maximal distinction between men and women and material success and competition are important (Hofstede, 1986). Competition is valued by the teachers; but it is assumed that the weak students will also benefit from such competition: "(…) you can give the star to the good one. So that the one who do not know how to do this, is going to have a feeling: I want that. So he is going to try harder." (R_5). Praise is not only used to encourage the strong students, weak students are encouraged in order to stimulate them; "(…) those who are good in class, we can praise them, to let them do more. With the weak ones, we must praise them even though he is not there yet. We must praise them to do more. Then we must praise them to encourage them." (R_1). This is more in line with a feminine culture where sympathy for the weak is appreciated. In such feminine cultures, social behavior and a relationship orientation is more important than self interest and self-esteem. The teachers stress the importance of a balance between a social and an educational orientation: "I think it must be balanced. Working in the class and doing the school work is ok, but it must be balanced with the social. Because anyhow, she is going to be in this world, in the home, in the environment, where she will meet new people. And then to share some things, must start from here. It means socially, but also educationally. (…) We must teach them social development." Thus, competition is valued but is it is supposed to help the strong *and* the weak students and public praise is used for weak *and* strong students. Similar both educational and social development are appreciated. It is possible that both orientations coexist in the community (Harkness, Super, & van Tijen, 2000).

The pre-school teachers have a s*hort term orientation*. People with such an orientation are focused on here and now, whereas cultures with a *long term orientation* are focused on what is to come, the future. Two teachers agreed quite strongly on their short term orientation: "I prefer now. Maybe tomorrow never comes." (R_4), "Something may happen. So if you got the money, you have to do it [buying something expensive] now.". Values associated with short term orientation are most common among the expressions of the teachers and include respect for tradition, fulfilling social obligations, and protecting one's 'face'. One teacher (R_1) put it: "They must learn about their tradition. Because when a child grows, every family has its own traditions. That it is why it is good that we must cater for all traditions of children in the school. Because we are here, not to take the tradition out of the children, we must be here to teach the children (…)." Important long term orientation values are thrift and perseverance; therefore we also questioned the importance of perseverance when a child tries to solve a puzzle. The teachers (R_1) did not think it is very important: "He must do something else. You cannot force.". However, this reaction could also be based on the assumption that practices in childcare should be age appropriate (Bredekamp, 1987), as the same teacher (R_1) emphasized: "If we can see that this one is so difficult for the age group, we must change so that we find an easier one. So that later in stage, he can do that one.". Thus, there is a short term orientation that could be strengthened by childcare specific ideas about developmental appropriate practice.

Discussion

Study 2 was conducted to gain an understanding of the schemes teachers use to interpret and evaluate particular events in situations of childrearing, define action goals and decide upon action strategies to obtain these goals. This led to the question: *What are the cultural values in the community of the teachers at the Ndlovu pre-schools?* The five dimension of cultural values by Hofstede (2001) were used to explore these childrearing beliefs.

Based on the results from the interviews, the cultural orientation of the teachers at the Ndlovu pre-schools is mainly collectivistic, with high power distance, uncertainty avoidant and orientated to the short term. Results did not show a strong masculine or feminine society, features of both were found. This cultural orientation has an impact on the fit of a Reggio Emilia approach with its four pillars; working with projects, art, interaction and collaboration and parent and community involvement. *Working with projects* gives children the opportunity to explore, observe and question a theme in dept. Working with projects fits well with a cognitive constructivist view on learning, which assumes that knowledge acquisition arises from children's empirical experiences that lead to assimilation and accommodation of their evolving schemas and representation of the external world. Results showed that the teachers are reticent towards exploration due to their uncertainty avoidance orientation. Exploration is perceived as important for education, but there is a strong emphasis on safety and structure during exploration. The high power distance also influences the work with projects. For an Reggio Emilia approach, teachers have to observe and listen to the children to gain insights in their learning and interests, in order to be able to facilitate projects that interest the children. However, the results showed that teachers prefer teacher-centered education, where experiences proceed primarily along the lines of the teacher's goals. The activities are based on the daily program and the project with themes that are determined by the teachers, based the season (see Study 5).

A Reggio Emilia approach needs *interaction and collaboration* among children and between children and teachers. This is important because knowledge is perceived as co-constructed through relationships with others. The results show more promising outcomes in this concern. References to a feminine culture implies that social development is appreciated and the teachers think that collaboration is necessary to be able to function in life. Due to the collectivistic orientation, harmony is highly valued within the classes. However, this does not mean that arguments and confrontations should be avoided, teachers reported that negotiation is necessary to remain harmony in a group.

Art is important in Reggio Emilia approaches because it provides the possibility to express oneself in multiple modes, which contributes to the advancement of knowledge. However, high uncertainty avoidance cultures prefer structure and predictability. This leads to art projects where the teacher prepares the art work and provides the children with an example of how their work should look like (Copple & Bredekamp, 2009). Such art projects do not promote multiple modes of expression and therefore is missing the function of art within a Reggio Emilia approach.

The collectivistic orientation at the pre-schools could promote *caregiver and community involvement*. In a collectivistic culture, ingroups are important, have a big influence on daily life and can expect unconditional loyalty from its members. When the pre-schools are perceived part if the ingroup, this would mean that caregiver and community involvement would work very well. The questions is, however, whether the pre-school is perceived as a part of the community by caregivers, teachers and the community as a whole. Study 4 and 5 suggest that there is willingness from both the caregivers and teachers, but currently the pre-school are not perceived as such *yet*.

An additional aim of this study was to explore methods to measure personal beliefs. In this study, individual and group interviews were held. A drawback from group interviews is related to the collectivistic orientation of the teachers. During one of the interviews one teachers said she disagreed with the other. From the reaction it showed that agreement is important: "No we are not supposed to disagree!" "We must agree about that. Why do you disagree?" (R_4). The subsequent reaction of the disagreeing teacher was to adjust standpoints in order to come to an agreement. Apparently, disagreement is not desirable and should be solved quickly. This should be taken into account when planning group interviews or discussions in this cultural context because discussion apparently has some difficulties. Yet the benefit of group discussions is that the respondents can help each other when they struggle to formulate their ideas in English. One respondent commented: "In our mother tongue these questions would be easy but sometimes they are difficult in English. Especially these cultural things." (R_5). Thus, group discussion can help to extend the vocabulary, but it can also restrict conversations since divergent opinions are not positively received.

Study 3. Educational Policies in the Exosystem

The governmental guidelines can provide us with additional insights in the current quality of the Ndlovu pre-schools. Specifically, these guidelines may point to quality issues that are may be less important in Western early childhood development centers, but do play a role for South African centers. Therefore the third research questions of this study is: *"Do the Ndlovu pre-schools meet the quality guidelines for early childhood services set by the government?"*. To answer this question, the guidelines will be translated into practical quality criteria that can be assessed. This would provide us with valuable information on two ways. First, it gives us another indicator of the strong point of the pre-schools and those points that could be improved. Secondly, exploration of these guidelines will also show us differences with international quality assessments. This points to quality concerns that are specific for the South African context.

Methods

Measurement

The guidelines were operationalized into a checklist with the answer categories "acceptable", "not acceptable" and "not applicable". The questionnaire can be found in Appendix III. For most items, the

description was sufficiently detailed to decide if the situation was acceptable or unacceptable (e.g., "Where more than 50 children are enrolled for a full day, provision must be made for a separate area where staff are able to rest and lock up their personal possessions."). For some items, additional appendixes provided by the government were used in order to answer the question. An example was item 5.4: "Practitioners should have at least the minimum qualification and work towards improving their qualifications". The appendixes provide additional information on issues such as qualifications, nutritional value and content of first aid boxes. The checklist is structured by the subjects in the guidelines and include the premises and equipment, health, safety and nutrition, management, learning methods, educator information, and working with families.

Procedure & respondents

For as far as possible, the assessment was administered by observation, when additional information was needed, the principals were interviewed. In the period prior to this study, the Department of Health and Social Development of the Limpopo province assessed the pre-school for an official registration. The assessment forms of this process provide additional information that could be used. For example, the guidelines state that all meals and snacks should meet the nutritional requirement for children. During the governmental assessment, a dietician judged the nutritional value of the menu and approved it. On this way, the assessment by the government helped to judge the current quality of the pre-schools. Where the governmental assessment and our observations diverged, the cause of these differences will be discussed.

Analysis

Five subjects of the guidelines; (1) premises and equipment, (2) health, safety and nutrition, (3) management, (4) learning methods and (5) educator information are shortly discussed below. Since Study 4 will discuss the relation between caregivers and parents, this relation will not be discussed in this study. Items that are judged 'inacceptable' are discussed more extensively. Finally, a comparison between the international structural and process quality instruments and the South African guidelines for early childhood development services will be made in order to understand where the biggest differences in attention lay. Both pre-schools will be discussed at once and when differences are found, these will be mentioned.

Results

Figure 3 shows an overview of the appliance of the pre-schools to the guidelines per subject.

Premises and equipment

In general, the premises and equipment were in good condition according to the guidelines. The buildings were safe, weather proof and well ventilated, and provided sufficient space separated by

function (such as an office, kitchen, play areas). Sufficient and safe toilet facilities were provided, but the governmental department stated that the toilets should have a lid which was lacking. The governmental department noted an insufficient provision of a sickbay for children, since the office is used as a sickbay. However, in the governmental guidelines it is stated that the office can accommodate a sickbay. In general the furniture and equipment were safe and in good repair, but the jungle gym in the outdoor play area was in insufficient state at both pre-schools (the swings were broken en the wood was damaged).

Health, safety and nutrition

The health, safety and nutritional conditions at the pre-schools showed several problems. For each child, a copy of their 'Road to Health Chart' should be at school, which includes their immunization program, vitamin A schedule, clinic visits, visual and hearing screenings, health problems and needs for special care. For many children this chart was missing and/or the chart was not kept up to date. There was no other record of the medical history of the children that could complement the Road to Health Chart. An accident book was kept that registers accidents, medicine use and possible abuse. The principals were not aware of a written document of policies and procedures that cover health care and emergency plans at the centers. Although there was a first aid box, both principals indicated that they did not know how to handle several items in the box. The education of the teachers safeguards their ability to recognize and deal with children's illnesses and early signs of child abuse. Children were not stigmatized or treated unfairly because of illness or disability they may have. The meals and snack menu was approved by a dietician of the health department to meet the nutritional requirements of the children. However, observations of the actual meals showed that these differed from the menu. Because the Ndlovu Care Group Bakery is closed, bread was no longer available and was now replaced by porridge during breakfast (this has been approved by the health department). However, no substitute was found for the bread as a snack. Provision of tea and milk were also not observed. Instead, children were provided with safe, clean drinking water. The observations imply that the current menu was not approved by a nutritional expert.

Premises and equipment		health, safety and nutrition		Management		Active learning		Practitioners		Families	
Structure	✓	The medical history	✗	Information for families	✓	Different activities	✓	Healthy	✓	Relationship with families	✗
Marked areas	N.A.	Immunization and Vitamin A schedule	✗	Child record	✗	Activities for developmental potential	✓	Appropriate qualities	✓		
Separate office	✓	Policies covering health care	✗	Registers	✗	Practitioners show joy	✗	Limit staff turnover	✓		
Staff area	✓	Emergency plan	✗	Record of daily menus	✗	Knowledge and understanding of development	✓	Minimum qualifications.	✓		
Kitchen	✓	Recognition & dealing with illnesses	✓	Transport regulations	✓	No physical punishment	✗				
Bottles cleaning facility	N.A.	Recognizing child abuse	✓								
Toilet	✓	Accident, medicine and abuse registers	✓								
Storage dangerous materials	✓	Awareness of medical and health needs	✓								
Outside playing space	✓	First aid box	✗								
Furniture and equipment	✗	Healthy environment	✓								
Compliance with building regulations	✓	Stigmatization	✓								
Pets	N.A.	Nutritional requirements	✗								
Insects and vermin	✓	Consultation with nutritional expert	✓								
		Feeding young children	N.A.								
		Supervision during eating	✓								

Figure 3. An overview of the appliance the governmental quality standards. ✓ = acceptable, ✗ = onacceptable, N.A. = not applicable.

Active learning

With concern to active learning and the practitioners, the pre-schools showed good results. All days were organized with many different and carefully planned activities, the practitioners showed that they enjoy working with young children, know and understand how children develop and children were never punished by physically hitting, smacking, slapping, kicking or punching. The practitioners were all healthy enough to be physically and mentally capable of meeting the demands made when caring for children. The teachers had appropriate qualities and qualifications to work with children and efforts were made to limit staff turnover.

The second aim of this study was to see if the quality guidelines by the government point to additional quality issues, not included in international quality assessments such as the ECERS-R. Comparisons shows that the governmental guidelines emphasize 'Health, safety and nutrition" more. Almost all issues in this subject of the quality guidelines are not included by the ECERS-R. Examples of items included in the guidelines but not in the ECERS-R are: emergency plan, medical history, first aid boxes, stigmatization and policies covering healthcare. Secondly, there is more attention for regulations. The guidelines asses compliance with building regulations, transport regulations, meeting minimum qualifications and keeping registers up to date.

Discussion

The governmental guidelines showed more attention for health, nutrition and safety and management than the process and structural quality measures used in Study 1. The results show that the pre-schools did not scores well on these subjects. Information concerning the health of the children was missing or not kept up to date, teachers were not well equipped to handle an medical or other emergency situation and the nutritional value of meals was insufficient. Deficiencies in management showed similar shortcomings; records were not kept up to date and information was missing, especially concerning policies for transportation. Yet overall, the guidelines give a positive image of the pre-schools. With concern to the premises and equipment, the practitioners and active learning all quality standards were acceptable, except for the jungle gym outside.

These results showed that it is good to include these guidelines as additional quality assessment because the additional subjects showed shortcomings. Regulations concerning health, nutrition and safety and management may be more stringent in the more developed countries where structural and process quality was assessed previously. Therefore these countries may assume that these aspects of care are sufficient. This may explain why quality assessments such as the ECERS-R do not include the subjects covered by the governmental guidelines in South Africa.

Study 4. Caregiver Involvement in the Mesosystems

Since caregiver involvement is an important theme in the Reggio Emilia approach, it is important to gain insight in the current frequency and forms of caregiver involvement. If the caregiver involvement is low, the intervention should try to increase it and this asks for an exploration of the possibilities for caregiver involvement. This leads us to the fourth research question; *What is the current level of caregiver involvement and how could this caregiver involvement be extended in the future?*

Methods

Measurement

To measure the current caregiver involvement, a questionnaire based on the questionnaire by Izzo, Weissberg, Kasprow and Fendrich (1999) was assessed. The questionnaire by Izzo and colleagues measures parental involvement as perceived by the teacher and was used because the same questions can be asks to caregivers *and* teachers, with only small adaptations. The adjusted questionnaires are attached in Appendix IV. The parent questionnaire assessed parental involvement by similar questions as in the teacher questionnaire. The main difference was that instead of contact with the caregivers, contact with the teacher was measured. The main difference in the teacher questionnaire was that teachers were not asked about their contact with each caregiver. Instead, the teacher had to indicate how many caregivers she saw how often. So for example, they were asked to indicate how many caregivers they spoke one time last year, how many caregivers they spoke two times and so on.

To explore the possibilities for an extension of the parental involvement, the framework of parental involvement by Epstein (1995) was used. Epstein describes six categories of parental involvement: *parenting* (families establish a home environment to support children as students), *communicating* (school-to-home and home-to-school communications about school programs and children's progress), *volunteering* (help and support at school), *learning at home* (help students at home with homework), *decision making* (parental involvement in school decisions), *collaborating with community* (using resources and services from the community to strengthen school programs, family practices, and student learning and development). From literature by Epstein (1995) and Fantuzzo, Tighe & Childs (2000), parental involvement activities for each category were extracted. This created a list of parental involvement activities organized by category, the full list is attached in appendix V.

Procedure & respondents

All caregivers were asked to fill in a questionnaire about their involvement in their child(ren)'s pre-school, sixty-one caregivers filled in the questionnaire. The six pre-school teachers also filled in a questionnaire about caregiver involvement. The caregivers received the questionnaire during the

parent meeting or they were brought home by the children. The teachers filled in the questionnaire after school time.

The list with parental involvement activities was discussed with during three discussion groups. The first discussion groups consisted of the two pre-school principals and the program manager of Ndlovu responsible for the pre-school education. The second discussion group consisted of the parental committee of Tholulwazi pre-school. The third discussion group consisted of the parental committee of the Kopanang pre-school. During the first meeting, the list of parental involvement activities was discussed and the respondents indicated which activities they thought were suitable and which ones were not. The respondents also indicated which activities already took place and provided additional ideas for activities. This led to an adjusted list of items, that was discussed during the meetings with the parental committees. They too indicated which activities they thought were suitable and interesting for their school and which ones were not. On this way, the discussion led to a list of parental involvement activities which are perceived feasible and positive by the management, the staff and the caregivers.

Analysis

The caregiver involvement data were all quantative data and were analyzed with SPSS. The discussion groups led to a list with caregiver involvement activities which are perceived feasible and positive by the management, the staff and the caregivers. In the results section, this list will be presented.

Results

The two pre-schools did not show a significant difference in caregiver involvement on the pre-school, $F(1,57) = 2.89$, $p = .095$. Figure 4 shows how often caregivers spoke to their child's teacher in the last school year and the current school year (from February until April/May). During the last school year, caregivers spoke on average 2.81 ($SD = 2.14$) times with their child's teacher and in the current year this was 1.85 ($SD = 1.64$) times. During last year, most caregivers spoke to their child's teacher once (27.0%), and 11.3% not spoke to their child's teacher at all. During the current school year, most caregivers spoke to their child's teacher once (40.7%) and 16.9% did not spoke to their child's teacher at all. As can be seen in Figure 1, many caregivers reported speaking to their child's teacher five times or more. Based on the distribution of scores, this finding can be considered an outlier and may be explained by a social desirability effect. The larger sample size for the current school year was caused by the toddlers, who were not yet attending the pre-school in the previous year. Of the caregivers, 62.3% reported attending a parent meeting and 40.4% reported attending other activities at the pre-school. Most caregivers were happy with the contact they had with their child's teacher ($M = 4.35$, $SD = .90$) and the amount of contact they had with their child's teacher ($M = 4.10$, $SD = .96$).

Table 4 shows the list of activities that were preferred by management, staff and caregivers of the pre-schools. Results show that there are several activities that could be implemented in the pre-

school to promote parental involvement, most of which concern activities and volunteering. There were only four activities where the two pre-schools differed. With concern to activities related to parenting; at Kopanang the caregivers were interested in discussion groups about parenting issues and at Tholulwazi caregivers would like family support programs to assist families with health, nutrition and other services. With concern to communication; at Kopanang the caregivers would like to talk with the teachers about classroom rules and at Tholulwazi the caregivers wanted information about the skills the children acquire in each grade.
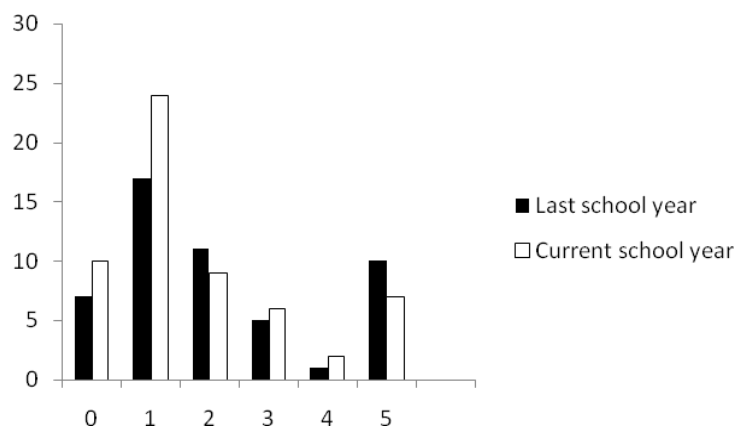

Figure 4. Frequencies of caregivers speaking to their child's teacher in the last school year and the current school year (from February until April/May).

Table 4. Final list of caregiver involvement activities. When one school wanted an activity, the name of that school is included behind the activity in parentheses. All activities in italic are already present at the pre-schools.

Type	Activity
Parenting	• Discussion groups for caregivers (Kopanang)
	• Family support programs to assist families with health, nutrition and other services. (Tholulwazi)
Communicating	• Talking with the teacher about classroom rules. (Kopanang)
	• Information on skills the student acquire in each grade. (Tholulwazi)
	• Quarterly information folder (students work, important notices, memos)
	• Information board in the school (birthdays, school works, pictures)
	• *Information on all school policies, programs & changes*
	• *Talking with the teacher about how the child gets along with his/her classmates at school.*
	• *Talking to the teacher about the child difficulties & accomplishments at school*
	• *Talking to the teacher about school work to practice at home.*
	• *Individual meetings with the caregivers to discuss their child*
Volunteering	• School and classroom volunteer program
	• Participation in fundraising activities in the school: cultural day with dances.
	• Creating materials for the pre-school: plastic mats
	• *Annual survey to identify volunteers*
Learning at Home	• Homework that requires the children to discuss with their families
	• *Reviewing child's homework*
Decision Making	• *Caregiver organizations, decision committee for caregiver leadership and participation.*
Collaborating with Community	• Presentations from family (traditions: stories & dances)

Discussion

The aim of this study was to create a baseline of the current level of caregiver involvement and the possibilities for extension of parental involvement. The results show a mixed image of the caregiver involvement at the pre-schools. Although most parents spoke to their child's teacher only once, the average was 2.8 times. This implies that some parents have been talking to their child's teacher a lot more. Interpreting these results is difficult due to social desirability effects. This is apparent in the current results by the large group of caregiver that reported speaking to their child's teacher five times

or more, while this results is unlikely based on the distribution of scores. In previous research in Elandsdoorn similar results were found. Respondents reported that people may give social desirable answers: *"...because we want to be beautiful in the face of an expert"* (p. 21, Brandts, 2009). This also complicates the interpretation of the data concerning the satisfaction with caregiver involvement. Most caregivers reported high satisfaction with the quality and amount of contact they had with their child's teacher. The results may also be biased due to the convenience sample that was used. Since not all caregivers fill in the questionnaire, the parents that did may be the ones more actively involved with the pre-school and thereby also report higher caregiver involvement.

When community and parental involvement become an important ingredient of the intervention at the pre-schools, there should be extra attention for the measurement of parent and community involvement. Focus group discussions could be an outcome because people will correct each other during such groups when things are said that are perceived untrue (Brandts, 2009). For now, we can say that most parents did not come to the pre-school frequently, since most parents only come to the school once.

The discussion concerning more active caregiver involvement led to several suggestions for caregiver involvement. Most activities concerned communication between caregivers and school, volunteering and community involvement. An apparent difference with studies from the United States of America and Western European countries was that the focus was not so much on home based learning, which can be explained by the low education levels in Elandsdoorn (Brandts, 2009). The most popular ideas were the involvement of caregivers to make materials for the pre-school which are low cost but labor intensive such as plastic mats and community elders who would teach the children about traditions such as stories and dances. The interest for the community as a source of exploration for the children to learn things such as old traditions, is very much in line with the Reggio Emilia approach to community involvement.

Study 5. Childcare Specific Beliefs in the Microsystem

Utrecht University proposed to implement a Reggio Emilia approach to teaching at the Ndlovu schools. How the beliefs underlying this approach will fit with the beliefs of the teachers is the question of this last study. Therefore we will explore the childcare specific beliefs of the teachers at the Ndlovu pre-schools. This exploration will be structured by means of the five themes identified by the NAEYC; learning environment, teaching methods, curriculum, assessment and the relation with the children's families. These results will be discussed for their fit with a Reggio Emilia approach.

Methods

Measurement

A questionnaire designed by Kim (2005) was used to measure the childcare specific beliefs of the teachers. An example of an item is: "To plan and evaluate the curriculum, teacher observation is _____." For each statement, the respondent has to indicate how important he/she thinks it is on a five point scale ranging from "not at all important" (= 1) to "very important"(= 5). This form of assessment turned out to be difficult to grasp. Therefore the items were changed to statement such as: "Teacher observation of the behavior of the children should used for planning and changing the curriculum (teaching plan)." All six teachers filled in the questionnaire individually. However, results indicated a strong tendency to respond affirmative. This, together with the small sample size led to a database without distinctive patterns where conclusions could be drawn from. Therefore the results will not be described here.

Besides the questionnaires, focus group discussions with the teachers were held. The discussions were structured by vignettes (Alexander & Becker, 1978, Finch 1987). This method has several advantages compared to individual interviews based on structured questionnaires. First, respondents can express themselves in their own words and more in detail. Second, respondents can respond to the issues in the vignettes they find important. This creates more personal relevance for the information that is provided. Third, focus group discussions are shown to be suitable for discussing difficult subjects that may oppose the cultural norms (MacPhail & Campbell, 2001). Fourth, during previous focus group discussion at the Ndlovu Care Group, this format also showed the advantage of discussion members correcting each others' statements when they thought it was not true. This stimulates informants to be honest and open and in that way reduced the problem of social desirable answers. More practical, the vignettes gave the informants a concrete situation to discuss, which made discussing the topic easier. Informants also opened up easier, because they were not directly asked about their own situation (Brandts; Glimmerveen, 2009).

The vignettes were based on the five themes in early childhood education identified by the NAEYC; creating a conducive environment for development and learning, teaching to enhance development and learning, curriculum, assessment and the relationship with the family. Each vignette contained an initial description of a situation related to the theme. For example: "Thabo is a new boy in the toddler group. Thabo is bullied by Thomas. The teacher sees Thomas bullying Thabo but she does not do anything about it. She thinks they have to solve it themselves.". The vignette is controversial with regard to the theme of that vignette, in this case a conducive environment for development and learning. The initial description is followed by a second and third situation description, where something changes in the situation. These changes in the situation structure the discussion, by providing new information to discuss. For example, the previously mentioned vignette continued: "The problems between the two boys do not end. The teacher tells Thabo's bigger sister to go to the boys and fix the problem between the boys." and: "Another teacher sees that Thomas bullies Thabo. She comforts Thabo and tells Thomas he should not behave that way." The vignettes are included in Appendix VI.

Procedure & respondents

One focus group discussion per pre-school was held with all three teachers of that school. Both discussions took about one hour. The discussions were led by a researcher from Utrecht University (master student), who introduced the new situations from the vignettes and asked the respondents for a reaction. When the situational description from the vignette was unclear, the researcher clarified. In general the discussions were in English, but when the respondents had trouble understanding something or were searching for the right words, their native language was used occasionally. In such cases, the respondents translated in English afterwards.

Analysis

The interviews were taped and fully transcribed. The transcripts were coded within the framework of the NAEYC themes. The results describe the childcare specific beliefs of the teachers.

Results

The learning environment

A learning environment should support all children to develop and learn and requires an physical, emotional and cognitive conducive environment which is experienced as safe and promotes exploration (Copple & Bredekamp, 2009). Teachers indicated that the most important goal for them was to make the children feel safe and to learn them how to behave. One teacher responded to the first vignette where a teacher does not solve a situation of bullying: "Everybody wants to feel safe at this premises. So if somebody bullies another one, the one who is bullied won't come to school. (…) That is not wanted here at school." (R_1). Later she (R_1) adds: "We are here to give them the right way of living with each other. And then some other children they are a bully from at home. Now we as teach must learn them the right way of living.".

The teachers create such a conducive learning environment by providing rules, one teacher (R_1) explains: "(…) we must call Thabo into order and then take them both to sit down and then tell Thabo that bullying is not a right thing. So that he can learn in the near future that bullying some other children is not ok and that it will make the other child afraid to come to school." Another teacher (R4) emphasizes that it is especially important to explain children *why* they have these rules. This is in response to a vignette where a teacher tells Thomas that he should not bully Thabo separately from Thabo: "No, this is wrong. She must call both of them in front of her. Say to them: don't do this, do this. Don't separate them. So they will both know that it is not right. (…) If you call them separate, the bully one will not learn anything. By doing it this way, we teach the bully one not to fight to the other one. So by putting them together we teach them." Finally, the teacher is also supposed to comfort the boy.

These methods and goals are influenced by the roles the teachers ascribe to themselves and the children. The teachers see themselves as the responsible elders and the children as incompetent learners that strongly depend on their teacher. This probably also relates to the high power distance discussed in Study 2, because such cultures emphasis the super-ordinate role of elders who are responsible for subordinate students (Hofstede, 1986). As one teacher (R_1) said: "Thabo is bullying Thomas and the teacher saw them. But she does not do anything about it. She wants them to solve it themselves. I think it is wrong. We are the elders in the school. We are teachers." Here she expresses the super ordinate role of elders and the responsibilities that come with this role.

Teaching methods

Developmentally appropriate practices should provide an optimal balance of adult-guided (experience proceeding primarily along the lines of the teacher's goals) and child-guided experiences (experience proceeding primarily along the lines of children's interests and actions) (Copple & Bredekamp, 2009). At the Ndlovu pre-schools, results showed that teaching is mainly adult-guided. Especially, the teachers base their lesson plan on a weekly/monthly theme that influences the subject of what is being taught. During the day there is one main activity that is compulsory for the children and is most of the time related to the theme. The most common main activity is artwork; many themes are expressed by means of art works. A teacher (R_3) uses this as an example: "Because there is a theme for the week, maybe the sun. The children are going to collage that sun. It means that the sun is the lesson of that day. It means that each and every child should collage the sun." There is also time reserved for free play that could be used to do activities based on the interests of the children. As one teacher (R_1) puts it: " (…) if the main activity is writing, than everyone must do that. You must make sure that you stick to that because it is the main activity of the day. In our daily program we have the free play time, with this time it is their fun. Every child chooses the activity for him/her self." However, this time is mostly spend with playing outside without much structure. This results in a program with little room for activities based on the interests of the children. Yet, the teachers expressed an interest for basing part of the program on the interests of the children; "you need to make arrangements. So that for a day, you take some of your time and you attend to that child. You need some arrangements with you daily program so that it does not interfere so much. And then it takes some times to cover each every child's interests."(R_1).

Child-guided activities can also be based on skills that the children need to develop further. The teachers reported that if they would base part of their program (during the main activity) on skills that need further development, they would be cautious not embarrass children by emphasizing their weaknesses to the other children: "So if a child has cutting skills problem, she[the teacher] must do more activities on cutting, for all the children. So that if that child cannot cut, he can enjoy cutting. (…) Because when you say to the child that does not know how to cut; "do cutting alone", you stress the child. So the teacher knows that I am not good in cutting, but she always wants me to cut. That will

stress the child. But if you do it as a group, the children will not see that what actually you are looking for." (R_5). This caution with embarrassment was also found in Study 2 and is probably caused by the collectivistic culture and short term orientation in the cultural community.

During activities, working with groups is needed to give the children sufficient attention. Especially during activities such as art; "It makes it possible for you to supervise the group you are working with. Other than taking the whole class to do art alone. You won't be able to manage them in supervision. If some are playing with the blocks, you choose the right area, which will not need your supervision so much."(R_1).

Curriculum

According to Copple and Bredekamp (2009), teachers should specify goals for learning and development of the children in order to develop an effective curriculum that that targets these goals. At both pre-schools, the teachers agreed that it is important to have a curriculum that specifies goals and plans to reach these goals: "If you are a teacher, you must have the goals. What do you want to achieve at the end of the day? At the end of the year. What do you want to see. What do you want to know. Like I am teaching now. I cannot just teach and then not have any goals. It makes me to want the child to do what I want. To achieve the goals." (R_1).

Assessment

Assessment of children's development and learning is essential in order to plan, implement, and evaluate the effectiveness of the classroom experiences and to monitor children's progress toward a program's desired goals (Copple & Bredekamp, 2009). The results showed that the teachers do not make use of any structural assessment, either to monitor the progress of the children nor to adapt their teaching to it. There are four reasons why children are not assessed. *First,* children in the toddler group are viewed as too young to learn and therefore assessment of these children is not needed. One teacher responded to the question; if there are reports on the progress of the children. (R_1): "Specifically for the toddlers, we do not have a crocus report. They don't have this. They just play.". *Secondly*, new comers are not assessed because the teachers expect that they do not have any school related abilities or knowledge yet: "You can check. But from home we do not expect him to know, He is just from home." (R_1). *Third,* structural assessment is not needed because the teacher will see it when a child has unexpected abilities: "And you will see that child. That he knows something. When you count, you count once or twice, thereafter he will go on. You can see that this child knows how to count."(R_3). *Fourth,* respondents say that the curriculum standards are fixed and therefore teachers know what knowledge and skills the children have when entering a new class. A teacher responds to the question why it is not necessary as a grade-r teacher to ask the toddler teacher what the children learned: "Because we had the same training. We can all do toddler and grade-r. That is why I don't see the use of asking (…) [toddler teacher], because I know."(R_6).

Relationships with families

Copple and Bredekamp (2009) argue that practitioners should involve families as a source of information about the child and engage them in the planning for their child. The respondents all agreed that it would be a good idea if caregivers would come to school to observe or to discuss the progress and well-being of their child. One teacher (R_1) stated: "She [mother at a pre-school] is welcome to observe and see how her child is performing. So that if the child has got some problems, we can help. It needs again for the parents to be involved. With the teaching it needs a parent, a teacher and a learner to be involved. We must help each other." Such involvement also communicates interest in the well-being of a child, which is appreciated by the teacher. One teacher mentioned that some parents do not show any interest and she is happy to see some involvement: "The mother shows that she is so involved in the teaching of her child. This one is a good mother because you can see as a teacher that I am not happy with this child. You can see that the parent is supportive of the child. Not all the parents are like this. This is a good parent." (R_1). One way the teachers try to promote parental involvement is by sending the arts works of the children home so they can show them to their caregivers; "The art from Monday up to Friday, on Friday we give them their work. To take home and then their mother at home should see how the work is. She should see that here my child needs help, or come here and say: "I see the work of my child, it is very good." And maybe here and here she complains and wants to know why. She will come and asks us." (R_3)

The results also show that there is a clear limit in caregiver involvement. When caregivers want to influence the program, this is one bridge too far. All respondents indicate that caregivers should not try to interfere with the program. "This one is interfering with my lessons. I am working on my planning, and these are my lessons. It is only if a parent is asking you: "can I come?" Than that parent can come and just sit and listen. But if this one comes to make changes, it is not right."(R_1). Thus, involvement as described by Copple and Bredekamp (2009), where families are involved as a source of information about the child and engaged in the planning for their child, is not appreciated. Another form of caregiver involvement would be welcomed: "Maybe the parents will come with a new story, a traditional story. Maybe I come and ask the parent to come and teach the children. That is right. But not to command that this should change."(R_3).

Discussion

The aim of this fifth study was to explore the childcare specific beliefs of the teachers at the Ndlovu pre-schools in order to explore their fit with the Reggio Emilia approach. The themes: working with projects, interaction and collaboration, art and caregiver and community involvement will be used to discuss the fit between the childcare specific beliefs and a Reggio Emilia approach.

Discussions on the teaching methods show that the teachers already work a lot with *projects*. A weekly or monthly theme lies at the base of many activities during that period. This provides the children with the possibility to explore a theme in-depth. However, these decisions of a theme and the activities within a team are based on the choices of the teachers. The teachers do not adapt these to the learning process and interests of the children in order to facilitate projects that interest the children. The free play time that is now used for gross motor activities outside, could be used to provide children with more possibilities to do activities based on their own interests. However, in Study 1 we already discussed the lack of materials at the pre-schools. If there would be more furniture and playing materials, the teachers could make theme corners where children can play according to their own interest.

Interaction and collaboration are important because knowledge is constructed through relationships with others around the child (Malaguzzi, 1993). The discussion on a conducive learning environment shows that teacher think that it is important to create a safe environment for the children where they feel free. Efforts to create such an environment contribute to collaboration and interaction since emotional safety is a requirement for collaboration. The discussion of teaching methods pointed out that the teachers prefer to split up the group, especially in case of activities that require a lot of attention. According to Copple and Bredekamp (2009), working in small groups promotes collaboration and interaction between children. An additional advantage is that a teacher has more time for individual attention when she can work with only part of the group on the daily main activity while the other children do side activities.

The most common activity used as the daily main activity for the theme is *art work*. Art work is used to explore the weekly/monthly theme and the different art works often differ in the materials and techniques used so the children have a possibility to explore. However, as mentioned in Study 2, most of the time the assignment is to copy an example. Therefore the use of art as a way for children to learn to express themselves in multiple ways is limited. Art work is also used to reach out to caregivers and to involve them in the pre-schools and thereby relates two important themes in Reggio Emilia, caregiver involvement and art.

The discussions showed that the teachers have a positive attitude towards *caregiver and community involvement*. One reaction in the discussion groups showed noticeable resemblance with a statement by Malaguzzi, a founder of Reggio Emilia. He stated: "Our proposition is to consider a triad at the center of education – children, teachers, and families" (Malaguzzi, 1993, p. 9). The teacher in turn stated: "With the teaching it needs a parent, a teacher and a learner to be involved. We must help each other." However, the teachers reported that caregivers should not try to interfere in the program of the school. This indicates that the parents are seen as a source for information about the children and can provide additional knowledge and skills to the pre-school such as traditional dances or stories. Teachers are open to provide caregivers with information and help, but the power within the pre-schools remains with the teachers.

GENERAL DISCUSSION

Ndlovu Care Group and Utrecht University will develop a pre-school intervention program for children in the rural township in the Moutse area near Elandsdoorn in South Africa. The aim of this *intervention* is to improve the pre-school education at the pre-schools Tholulwazi and Kopanang. The first aim of this *research project* was to explore what aspects of the pre-schools should be changed by the intervention, in order to improve the pre-school education. The processes that determine childcare quality (the optimal support for learning and development; Marshall, 2004) were the mechanisms studied. Therefore, the first overall research question was: *What aspects of the pre-schools should change by the intervention, in order to improve the pre-school education?* Based on the quality assessments by the ECERS-R and the guidelines of the Department of Social Development from the South African government, eight processes could be pointed out that should change to improve the pre-school quality. *(1)* Due to a lack of materials, the pre-schools could not provide a range of activities that could promote optimal development. *(2)* Due to insufficient rest and meals of low nutritional value, the development of the children through biological pathways could be restricted (Blair, 2002). Insufficient rest for some was caused by a inappropriate rest schedule. Children that could not sleep kept the other children awake. *(3)* There was an increased risk of injury and sickness at the pre-schools. The teachers could not deal with emergencies due to insufficient knowledge and skills. There was insufficient supervision by the teachers to guarantee safety during gross motor play and the teachers did not maintain enough control to prevent children from hurting each other. The outdoor space was not safe because the fence of the outside area was not closed and the climbing materials were damaged. These issues increase the risk for injury. Hygiene was insufficiently due to a lack of hand washing after toileting, which could cause sickness. *(4)* Visual stimulation of the children was not optimal and thereby limits the cognitive development of the children. Few materials were displayed in the classroom and no child works were displayed. *(5)* The stimulation of the social-emotional development of the children was not optimal since there was little guidance for social interactions. Interactions between the children were not encouraged and positive peer interaction was not encouraged. *(6)* The needs of the teachers at the pre-schools were not optimally met since there were little growth opportunities for the teachers, there was no in-service training provided for staff and there were no breaks for the teachers. *(7)* The needs of the caregivers were not met, since there were few possibilities to be involved in children's program and there was little sharing of child-related information between caregivers and teachers. *(8)* The paperwork of the pre-schools was not kept up to date. Information concerning the health of the children, transportation policies and safety procedures were missing or not up to date.

According to the Realistic Evaluation Theory, it is important to understand *how* an intervention works ánd in *what circumstances* (Pawson & Tilley, 1997). Therefore the interactions between the processes described above and the context will be discussed. This led to the second overall research question; *(2) How does the context interact with the processes?* The macrosystem of cultural norms and values influences the processes within the pre-school that could be improved to increase the quality of the pre-schools. The influence of cultural values on the *lack of materials and food of proper nutritional value* is negligible, this is a practical matter. The *inappropriate rest schedule* could be influenced by the collectivistic orientation of teachers. This orientation causes the teachers to perceive the children as a group, who should be handled as such. The needs of the children are supposed to be similar and when children diverge, they are expected to adjust to the majority. This means that children are expected to stay still even when they are not tired. The *increased risk of injury and sickness* at the pre-schools due to insufficient attention for hygiene and supervision was surprising, since the teachers showed high uncertainty avoidant values that should stimulate safety and hygiene practices. The *lack of visual stimulation* due to few materials on display may be influenced by the teacher-centered orientation of the teachers, which is in turn influenced by the high power distance orientation in the community. The teacher-centered orientation implies that teachers perceive the lessons of the teacher as the core of education and additional stimuli such as visual materials in the classroom are not highly valued. The collectivistic, feminine orientation of the teachers could influence the *stimulation of social-emotional development.* Harmony within groups is valued in collectivistic cultures and appropriate social behavior is important in feminine cultures, therefore it would be expected that such a cultural orientation would lead to positive guidance of social interactions. Yet, the results did not show such an effect. However, this cultural orientation could make a change in the stimulation of social-emotional development by the intervention more easy. The high power distance may influence the lack of caregiver involvement. When the teachers perceive themselves as the super ordinates at the pre-school, they will not invest a lot of effort in promoting caregiver involvement because this forces them in a subordinate position where they should support the *caregivers' needs*, such as information provision in order to promote caregiver involvement. However, the collectivistic orientation of the teachers emphasizes the importance of community involvement and this may promote a motivation to involve the caregivers at the pre-school. The *paperwork* of the pre-schools is not well kept and the short term orientation of the teachers may influence this. When the teachers are not oriented towards the future, the use of such paperwork is not clear. Paperwork such as transport policies and health information may be needed when situations arise such as when the children needs vaccinations or a transport accident occurs. However, at the moment itself the paperwork is mainly an extra burden. On this way, the short term orientation may explain why the paperwork is not well updated and complete.

In the mesosystem, the microsystem of the child's home and the pre-school interact. The quality assessment showed that one of the ways to improve the pre-school quality was by better meeting the *needs of the caregivers*. In turn, the study of the caregiver-school mesosystems showed

that there was very little contact between the pre-schools and the caregivers. This relation could be improved by providing more possibilities to involve caregivers. The meetings for caregivers about caregiver involvement showed that both staff and caregivers were positive about increasing the involvement. The suggestions that came up during this meeting could be used as a starting point in the intervention to improve caregiver involvement. The most popular ideas were the involvement of caregivers to make materials for the pre-school which are low cost but labor intensive (such as plastic mats) and community elders who would teach the children about traditions such as stories and dances.

In the pre-school microsystem, the childcare specific ideas of the teachers have a large impact on the care that the children experience. The childcare specific ideas also influence the processes within the pre-schools that could be improved. Here too, the effect of beliefs on a *lack of learning materials and food* is negligible. The *inappropriate rest schedule* is not tailored to the needs of the individual children. The rest schedule could be fixed due to the teacher-centered functioning on the pre-schools. If resting is part of the daily program, the teacher beliefs showed that individual differences between the children are not perceived as a good reason to adjust it. However, the focus group discussions also showed that the teachers sometime work with groups. Maybe it would be possible to divide the children in a group that rests and a group that does not. The *risk of injury and sickness* is surprisingly since the teachers stressed the importance of safety. Although the discussions mainly focused on social-emotional safety, the interviews on cultural values showed that the teachers also highly valued physical safety. There is a *lack of visual stimulation* in the toddler classes. The childcare belief discussions showed that the teacher think that cognitive development is not very important for toddlers yet, which could explain the lack of stimulation. In the discussion of the macrosystem the effect of a teacher-centered orientation on such visual stimulation is already discussed. Here the relation between the macrosystem and the microsystem is very clear; the high power distance orientation could lead to teacher-centered ideas about teaching, which become apparent in the specific childcare ideas in the microsystem. The lack of *stimulation of the social-emotional development* is surprisingly since the interviews showed that the teachers highly valued a safe social-emotional environment and social adaption is considered as one of the main aims of pre-schools education. Apparently there is a gap between the ideas and intentions of the teachers and the effects in the pre-school. The quality assessment also showed that the *needs of the caregivers* for sharing child-related information and possibilities to be involved were not met. The focus group discussions on childcare specific beliefs showed that the teachers were positive about parents who want to come in, to gather information about their child at school. Also, one of the teachers suggested that caregivers could teach the children about specific topics such as cultural traditions. Here too, the results suggest that all parties are willing to extend the caregiver involvement in the pre-school. The final point that could be improved is the *paperwork* that is not kept up to date. The focus group discussions showed that there is no assessment system to monitor the progress of the children. The teachers do not think that assessment would help them to adapt their lessons or that there is much

benefit from knowing which children do good and which are the weak students. When the teachers do not see the use of reports (about the health of the children, regulations or progress of the children) to guide their behavior, than paperwork is not useful in the day-to-day teaching.

These relations between the mechanisms and processes are not certain, instead, they should be perceived as the first hypotheses of the dynamic processes that work at the pre-schools. Implementing an intervention in these settings and studying the effect thereof on the pre-school quality will help to gain further knowledge in this dynamic system (Pawson & Tilley, 1997).

When the intervention will target the above processes by blocking the problematic mechanisms, this should lead to an improvement of the pre-school quality. Yet the aim of the intervention is also to promote a strong community orientation, involving arts and crafts people from the community. The Reggio Emilia approach to pre-school education is a potential candidate for the intervention. Therefore, we needed to know if the most essential and basic ideas regarding early childhood education underlying the Reggio Emilia fit within the context of the Ndlovu pre-schools. This led to the third overall research question: *(3) Would a Reggio Emilia approach to pre-school education fit the intervention and the context of the Ndlovu pre-schools?*   The use of Reggio Emilia as a part of the intervention and the fit in the cultural context will be discussed per theme in the Reggio Emilia approach; working with projects, interaction and collaboration, working with art and caregiver and community involvement.

Results showed that the teacher already *work with projects.* A weekly or monthly theme lies as the basis of many activities during that period. This provides the children with the possibility to explore a theme in-depth. However, these decisions of a theme and the activities within a team are based on the choices of the teachers. The high power orientation of the teachers probably contributes to this teacher-centered form of education found at the pre-schools. Working with projects has the benefit that is gives the opportunity to explore a theme from different angles. The results showed that the teachers are reticent towards exploration due to their uncertainty avoidance orientation and emphasize safety and structure during exploration. All in all we can say that working with projects is possible at the Ndlovu pre-schools, but due to cultural values it will be difficult to base these projects on the children's interests and to use an open method of exploration. Working with projects would not directly contribute in the improvement of the eights processes identified in the quality assessment. Reversed, more visual stimulation would be preferred when working with projects according to a Reggio Emilia approach. Such visual material can raise questions that stimulate exploration. At the same time, results from previous projects should be visible in the class in order to develop a sense of continuation between the projects and to see progress (Hewett, 2001).

A Reggio Emilia approach needs *interaction and collaboration* among children and between children and teachers. The feminine and collectivistic orientation of the culture imply that teachers value concepts which are important for collaboration and interaction such as harmony and negotiation.

The focus group discussions showed that teacher think that it is important to create a safe environment for the children where they feel free, which is a requirement for collaboration. The discussion also showed that the teachers prefer to split up the group in small groups, which promotes collaboration and interaction between children (Copple & Bredekamp, 2009). This means that just implementing an intervention where interaction and collaboration is needed will probably not succeed because there is insufficient attention for social interactions at the pre-schools right now. A focus on interaction and collaboration in the intervention could contribute to the stimulation of social-emotional development of the children. The intervention should find a way to make social interaction a more important theme in the schools and provide the teachers with the resources needed to promote good interaction and collaboration.

Art work was the most commonly used activity in the pre-school programs and was used to explore the weekly/monthly theme. However, most of these works were a matter of copying the teachers' example. Such art projects do not promote multiple modes of expression and therefore miss the aim of art within a Reggio Emilia approach. This could be due to high uncertainty avoidance culture that prefers structure and predictability. The art works were used to reach out to caregivers and to involve them in the pre-schools. However it does not seem to work and thereby does not affect the caregiver needs that are not sufficiently met yet. The lack of materials at the pre-schools also concerns art materials, this is important to keep in mind when creating an intervention that involves art. Art should be approached a bit creative in such circumstances and should use materials that are already available (e.g., food boxes).

Caregiver and community involvement is important for Reggio Emilia. The focus group discussions showed similar importance of caregiver involvement. The parents are seen as a source of information about the children and can provide additional knowledge and skills to the pre-school such as traditional dances or stories. Teachers are positive about providing caregivers with information and help, but the power within the pre-schools should remain with the teachers. The collectivistic orientation at the pre-schools could promote caregiver and community involvement. The studies suggest that there is a willingness from the caregivers and teachers for more caregiver and community involvement but it is not there yet. The need for increased caregiver involvement was also found in the quality assessment. Increasing caregiver and community involvement thus seems possible *and* needed for both Reggio Emilia and the quality improvement.

This research project has provided an extensive overview of the mechanisms currently functioning at the pre-schools that limit its quality. The context that interacts with these mechanisms has been taken into account to gain a fuller understanding of how the mechanisms function. Thereby, this research project has provided us with a constructive toolbox for the development of an intervention to improve the pre-school quality. Since the research project was conducted to prepare the pre-schools for an intervention there were only two schools included in the studies with both only three teachers.

Therefore, caution is necessary when generalizing the findings of this study to another context. The results are not meant to provide general knowledge of childrearing beliefs and childcare in Africa, South Africa or even rural South African townships. However, it would be interesting to explore if these findings are also found in other schools in South African townships. The current study set up could be used at other sites to explore general pre-school quality in South Africa and the interactions with the context. This would help us to understand if and how other pre-schools could benefit from a similar intervention as the Ndlovu pre-schools.

If the general childrearing beliefs and the specific childcare practices of teachers would be measured in a larger sample, we would also gain more insights in the similarities and differences between cultural communities in childrearing. This is especially important in the light of the current globalization. When childcare services will provide care for children from an increasingly heterogeneous mix of cultures and the childcare providers will also have more diverse cultural backgrounds, it is important to understand what these differences are. Huijbregts and colleagues (2008) have shown that childcare specific beliefs influence the general childrearing beliefs of teachers at pre-school services. Therefore, the cultural orientation that was found in this study, based on these general childrearing beliefs could be influenced by education of the teachers and interactions at the pre-schools. These results should thus not be taken as valid for the whole cultural community and it would be interesting to explore the cultural orientations and the general childrearing beliefs of the community as well.

This research project showed that often the attitudes and beliefs of the teachers were often not in line with the behaviors found in the quality assessments. This points to a gap between attitudes and behavior. During previous studies at the Ndlovu Care Group researchers found a tendency to react social desirable (Brandts, 2009), in the current study on caregiver involvement similar effects were found (Study 4). This means that it is especially important to explore the behavior of the teachers in follow up research since this may deviate from their attitudes.

From this research project follow recommendations for the intervention. The eight mechanisms that were found to influence the childcare quality should targeted by the intervention. While doing so it is important to take the cultural beliefs and values into account. This general discussion has extensively described how the context of the Ndlovu pre-schools may interact with the mechanisms and what this implies for the intervention. When a Reggio Emilia approach to education is implemented within the Ndlovu pre-schools the current mechanisms and context will provide some challenges, such as a strong teacher-centered method of teaching that is strongly embedded in the culture's uncertainty avoidance and high power distance. The implementation will not be easy, but it will certainly be worthwhile since Reggio Emilia provides a lot of potential for the situation of the pre-schools. At the same time, the intervention should be perceived as a critical measure for the mechanisms proposed in this research. Blocking the mechanisms proposed in this research project should improve the quality of the education and thereby the development of the children. If not, this

could imply that the hypothesized mechanisms are not right. The intervention will help to improve our understanding of the ongoing processes while the research creates a starting point the intervention. This dynamic process is the aim of the Realistic Evaluation approach (Pawson & Tilley, 1997).

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APPENDIX I. ECERS-R SCALES

Space and furnishing	Interaction
Indoor space	Supervision of gross motor activities
Furniture for routine care, play and learning	General supervision of children
Furnishing for relaxation	Discipline
Room arrangement for play	Staff-child interactions
Space for privacy	Interactions among children
Child-related display	
Space for gross motor play	
Gross motor equipment	

Personal care routine	Program structure
Greeting/departing	Schedule
Meals/snacks	Free play
Nap/rest	Group time
Toileting diapering	Provisions for children with disabilities
Health practices	
Safety practices	

Language-Reasoning	Parents and staff
Books and pictures	Provision for parents
Encouraging children to communicate	Provision for personal needs of staff
Using language to develop reasoning	Provisions for professional needs of staff
Informal use of language	Staff interaction and cooperation
	Supervision and evaluation of staff
Activities	Opportunities for professional growth
Fine motor	
Art	
Music/movement	
Blocks	
Sand/water	
Dramatic play	
Nature/science	
Math/number	
Use of tv., video, and/or computers	
Promoting acceptance of diversity	

APPENDIX II. STATEMENTS ON GENERAL CHILDREARING BELIEFS

Power distance

1. Children should show respect to their teacher / children should be independent and not give a lot of attention to their teacher.
2. Children should show initiative for activities or discussion at the pre-school / the teacher should decide what activities take place in the classroom.

Uncertainty avoidance

3. Boys are not supposed to play with dolls/ it is ok if boys like to play with dolls.
4. Children should explore new situations / children should be protected from potential danger.

Collectivism/individualism

5. Parents are responsible for the education of the children / the whole family is responsible for the education of the children.
6. Harmony in the class is very important, fights should be avoided / when children have a problem with each other, sometimes a confrontation is needed.

Masculine/feminine

7. Teachers should praise and reward the good students / teachers should praise and reward the weak students to encourage them.
8. Learning social adaption is the most important goal at school / good performance is the most important at school.

Long term/short term orientation

9. Children should learn about traditions / children should learn about modern life.
10. Children need to keep on trying when they cannot do something / children should focus on something else when they cannot do something.

APPENDIX III. GUIDELINES FOR EARLY CHILDHOOD DEVELOPMENT SERVICES BY THE DEPARTMENT OF SOCIAL DEVELOPMENT.

Guidelines for early childhood development services School: Date:			
1. Premises and equipment	Acceptable	Not acceptable	Not applicable
1.1 Structure must be safe, weatherproof and well ventilated.			
1.2 If the same room space is used as a play room, office and kitchen, each area must be clearly marked.			
1.3 Where more than 50 children are enrolled for a dull day, a separate office must be provided. The office should be large enough to accommodate a sickbay for at least two children.			
1.4 Where more than 50 children are enrolled for a full day, provision must be made for a separate area where staff are able to rest and lock up their personal possessions.			
1.5 Where food is prepared on the premises, there must be an area for preparation, cooking and washing up.			
1.6 Where children who are bottle-fed are cared for, suitable facilities must be provided for cleaning the bottles.			
1.7 Toilet facilities that are safe for children must be available.			
1.8 Provision must be made for the safe storage of anything that could harm children.			
1.9 At least 2 m2 safe outside playing space per child must be provided.			
1.10 All furniture and equipment must be safe and in good repair.			
1.11 Alterations and additions, as well as new buildings, must comply with the National Building Safety Regulations.			
1.12 If pets are kept on the premises, they must be tame, clean, safe, healthy and well cared for.			
1.13 Insects and vermin must be effectively combated.			
2. HEALTH, SAFETY AND NUTRITION	Acceptable	Not acceptable	Not applicable
2.1 The medical history of each child should be recorded and kept up to date and confidential.			
2.2 A record of each child's immunization program and Vitamin A			

schedule must be kept at the centre (i.e. a copy of the Road to Health Card).			
2.3 There should be policies and procedures written down that cover health care at the centre.			
2.4 There must be action plans to deal with emergencies.			
2.5 Staff should be able to recognize children's illnesses and how to deal with these.			
2.6 Staff should be trained to recognize early signs of child abuse and how to protect children.			
2.7 Accident, medicine and abuse registers must be kept up to date.			
2.8 Staff should be aware of special medical and health needs of children at the centre and their responsibility in terms of the law			
2.9 A first aid box must be provided.			
2.10 There should be a healthy environment for the children and staff .			
2.11 No child should be stigmatized or treated unfairly because of any illness or disability they may have.			
2.12 All meals and snacks should meet the nutritional requirements of the children.			
2.13 Planning of a menu, whether for babies, toddlers or older children, must be done in consultation with an expert (e.g. clinic sister, dietician), because children of different ages have different nutritional needs.			
2.14 Children younger than one year should be fed when they are hungry i.e. on demand.			
2.15 Children must be supervised by an adult when they are eating.			
2.16 Safe, clean drinking water must always be available.			
3. MANAGEMENT	Acceptable	Not acceptable	Not applicable
3.1 Centre information and policies must be given to families before the child is admitted.			
3.2 Records on each child must be kept up to date.			
3.3 Registers must be kept up to date.			
3.4 A record of daily menus must be kept.			
3.5 There must be regulations regarding the transport of children			
4. ACTIVE LEARNING	Acceptable	Not acceptable	Not applicable

4.1 Each day should be organized with many different and carefully planned activities.			
4.2 Activities should help children develop their full potential.			
4.3 Practitioners should show that they enjoy working with young children.			
4.4 Practitioners should show that they know and understand how children develop.			
4.5 Children must never be punished physically by hitting, smacking, slapping, kicking or punching.			
5. PRACTITIONERS	Acceptable	Not acceptable	Not applicable
5.1 The practitioner must be healthy enough to be physically and mentally capable of meeting all the demands made of caring for children.			
5.2 The practitioner should have appropriate qualities to work with children.			
5.3 All efforts should be made to limit staff turnover.			
5.4 Practitioners should have at least the minimum qualification and work towards improving their qualifications.			
6. WORKING WITH FAMILIES	Acceptable	Not acceptable	Not applicable
6.1 A good relationship between families and the centre should be developed and supported.			

APPENDIX IV. PARENTAL INVOLVEMENT QUESTIONAIRRES

Teacher version

How many parents have you spoken to discuss school performance or behavior of their child in the past school year (before February)?						
N.A.	0 times	1 times	2 times	3 times	4 times	5+ times

How many parents have you spoken to discuss school performance or behavior of their child in this school year (before February)?						
	0 times	1 times	2 times	3 times	4 times	5+ times

I am happy with the contact I have with the parents.					
	Strongly disagree	Disagree	Somewhat	Agree	Strongly agree

I am happy with the amount of contact I have with the children's parents.					
	Strongly disagree	Disagree	Somewhat	Agree	Strongly agree

In the past year, how many parents attended Parent meetings?	
How many did?	How many did not?

In the past year, how many parents attended other activity?	
How many did?	How many did not?

What activities?

In the past year, how many parents had any other contact with you?	
How many did?	How many did not?

Where did they have contact for?

Parent version

How many times have you spoken to this child's teacher to discuss school performance or behavior of your child in the past school year?						
N.A.	0 times	1 times	2 times	3 times	4 times	5+ times
How many times have you spoke to this child's teacher to discuss school performance or behavior of your child in this school year (since February)?						
	0 times	1 times	2 times	3 times	4 times	5+ times
I am happy with the contact I have with my child's teacher.						
		Strongly disagree	Disagree	Somewhat	Agree	Strongly agree
I am happy with the amount of contact I have with my child's teacher.						
		Strongly disagree	Disagree	Somewhat	Agree	Strongly agree
In the past year, did you attend Parent Teacher meetings?						
No		Yes				
In the past year, did you go to any other activity?						
No		Yes:				
In the past year, did you have any other contact with your child's teacher?						
No		Yes:				

APPENDIX V. PARENTAL INVOLVEMENT STARTING ITEMS

Type	Item
Parenting Help all families establish home environment to support children as students.	Suggestions for home conditions that support learning (bed times, activities, materials). Parent education and other courses or training for parents. Family support programs to assist families with health, nutrition, and other services. Home visits, to help families understand schools and to help schools understand families.
Communicating Design effective forms of school-to-home and home-to-school communications about school programs and children's progress.	Conferences with every parent at least once a year, with follow-ups as needed. Weekly or monthly folders of children's work, important notices, memos, phone calls, newsletters, and other communications. Information on all school policies, programs & changes. Information board in the school with: birthdays, school works, pictures. Talking with the teacher about how the child gets along with his/her classmates at school. Talking with the teacher about classroom rules. Talking to the teacher about the child difficulties & accomplishments at school. Talking to the teacher about school work to practice at home. Talking to the teacher about my child's routine. Meetings with administration to talk about problems or to gain information Talking with my child's teacher on the telephone Communication between parents about school meetings and events.
Volunteering Recruit and organize parent help and support.	School and classroom volunteer program to help teachers, administrators, children, and other parents. Parent room or family center for volunteer work and meetings. Annual survey to identify all available talents, times, and locations of volunteers. Class parent, telephone tree, or other structures to provide all families with needed information. Child transportation organized by the parents (buses for far away), pick up parents for nearby, dropping of all the kids. Going on class trips. Participation in fundraising activities in the school. Creating materials for the pre-school.
Learning at Home Provide information and ideas to families about how to help children at home with homework and other curriculum-related	Information for families on skills required for children in all subjects at each grade.

activities, decisions, and planning.

Regular schedule of homework that requires children to discuss and interact with families on what they are learning in class.
Calendars with activities for parents and children at home.
Family math, science, and reading activities at school.
Family participation in setting children's goals each year and in planning for college or work.
Working with the child on reading/writing skills.
Talking with the child about how much you love learning (motivational talk), about how school was when parent was young.
Bringing home learning materials.
Reviewing child's schoolwork.
Praising the child for schoolwork in front of the teacher.

Decision Making
Include parents in school decisions, developing parent leaders and representatives.

Parent organizations, decision committee (e.g., curriculum, safety, personnel) for parent leadership and participation.

Participating in planning classroom activities with the teacher.
Participating in planning class trips.

Collaborating with Community
Identify and integrate resources and services from the community to strengthen school programs, family practices, and student learning and development.

Information for students and families on community health, cultural, recreational, social support, and other programs or services.

Service integration through partnerships involving school, civic, counseling, cultural, health, recreation, and other agencies and organizations; and businesses (the dental practice could come by).
Service to the community by students, families, and schools (e.g.,recycling, art, music, drama, and other activities for seniors or others).
The pre-school as an centre for community projects (e.g. weaving project together with mama Africa).

APPENDIX VI. VIGNETTES CHILDCARE SPECIFIC BELIEFS

Vignette 1 - the social emotional atmosphere

1. Thabo is a new boy in the Toddler group. Thabo is bullied by Thomas. The teacher sees Thomas bullying Thabo but she does not do anything about it. She thinks they have to solve it themselves.

2. The problems between the two boys do not end. The teacher tells Thabo's bigger sister to go to the boys and fix the problem between the boys.

3. Another teacher sees that Thomas bullies Thabo. She comforts Thabo and tells Thomas he should not behave that way.

Vignette 2 - Teaching method

1. Maria is a new teacher at a pre-school in South Africa, she is from Zimbabwe. Maria let the children work in groups in the class. While some children are working on an art work, other children are building with blocks. She decides who goes in what group.

2. When Maria divides the children in groups, she asks the children what they want to do. Some children want to play with blocks, other with dolls and other want to write. She forms groups of children that want to do the same thing.

3. Maria does not always works with groups. Sometimes she makes an individual program for each child, depending on what the child likes.

Vignette 3 – Assessment

1. In February, Thabile get's 14 new children in her grade-r class. She does not know what the children learned in the toddler class. Therefore, she decides to teach the children how to count in English from the start.

2. The next year, Thabile asks her colleague Shocky what the children learned in the Toddler group about counting in English. On this way she can continue with the children where they ended.

3. The next year, Thabile asks Shocky for an overview of the level of counting in English for the new children in her class. She wants Shocky to provide her with the results on paper.

Vignette 4 – relationships with families

1. A mother of a child on the pre-school comes to school. She wants to observe the lessons and the free play at school. She want to see what is going on at school. She also wants to see how her child is doing at school.

2. Another mother wants her child teacher to tell her what is going on at school. She asks for information about what is going on. She also says that she wants the teacher to keep her updated if anything changes.

3. Another mother comes to school to talk about the program. She wants that there will be circle talk in the class. During that time, all the children sit in a circle and talk about the things that have happened to them. She asks the teachers to do circle talk on a regular basis.

Vignette 5 – Curriculum

1. Sharon is a new teacher on a pre-school in the north of South Africa, she is from Cape Town. Sharon has a very detailed lesson plan for her new class.

2. After a couple of weeks of teaching, Sharon start to ask the other teacher about their lessons. What do they do with the children? Why do they do that?

3. Sharon is working at the school for a while. She tells the other teachers that she thinks they all should have a lesson plan like her. It should include the goals of the teaching, the activities that are used for these goals and a planning. She tries to persuade the other teachers to make a very detailed lesson plan.