# RUNNING HEAD: PARENTING AND SCHOOL READINESS ROMA

# Correlation between parenting and school readiness of Roma children

The importance of involving parents







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Content	
Abstract	8
Introduction	9
Theoretical Background	9
Roma in Macedonia	9
School readiness	12
Improving school readiness	13
Parenting	15
Present Research	17
Method	17
Participants	17
Measures	18
Procedures	19
Analysis	20
Results	21
Differences between Skopje - SUMNAL and Bitola – Life Start	21
Differences between boys and girls	23
Skopje	23
Bitola	24
Correlation between parenting and school readiness	25
Skopje	25
Skopje – boys	26
Skopje – girls	27
Bitola	28
Bitola – boys	28
Bitola – girls	30
Children attending an ECD centre for more than 2 years	31
Reliability	32
Conclusion	33
Discussion	34
Limitations and recommendations	35
Biography	37
Appendix I: Interview staff members ECD centres	43
Appendix II: ELDS instrument	44
Appendix III: Questionnaire for mothers	50
Appendix IV: Questionnaire for children	55
Appendix V: Scatterplots of the distribution of parenting	57

#### Abstract

This study examined the relation between parenting and the school readiness of Roma children in FYROM in cooperation with UNICEF Skopje. Differences between gender and location were taken into account. *Method:* A mixed design was used. A total of 62 persons were involved, 14 children, 14 mothers, and 3 educators of the Early Childhood Development (ECD) centre SUMNAL in Skopie, and 14 children, 14 mothers, and 3 educator of the ECD centre Life Start in Bitola. Parenting was investigated with a composite questionnaire for mothers and children, and semi-structured interviews with the educators. School readiness was measured with the Early Learning and Development Standards (ELDS). Results: While no significant relations between parenting and school readiness were found in Skopje, strong significant relations between parenting and school readiness were found in Bitola. Comparison of children who attended an ECD centre for more than two years, showed strong correlations between parenting domains and school readiness domains as well. Furthermore, a difference in school readiness was found between boys and girls. Not all domains of parenting were related with domains of school readiness and vice versa. Conclusion: Parenting seems to be associated with children's level of school readiness. Children who receive parenting with more nurturance, less harsh discipline, more stimulating language and teaching techniques, more books at home, and more variation in toys have a higher level of school readiness. Further research is needed to generalise these findings.

*Keywords:* Roma, children, parenting, school readiness, Early Childhood Development centre, FYROM, Skopje, Bitola, gender

One of the most disadvantaged groups in the Former Yugoslav Republic of Macedonia<sup>1</sup> are the Roma. Working towards equity for children the access to education in forms of Early Childhood Development (ECD) programmes, primary education and secondary education is tried to be increased (UNICEF, 2011a). Nevertheless, the number of Roma children that go to an ECD centre and attend school is staying behind (Multiple Indicator Cluster Survey [MICS], 2011). As scientific evidence affirms, children who have early failure experiences in school are most likely to drop out of school early (Shonkoff & Phillips, 2000 in Ramey & Ramey, 2004). Children with a lack of school readiness seem to dropout earlier than children who are ready for school. Roma children have a lower level of school readiness in comparison with other Macedonian children in the age of 36 to 59 months (MICS, 2011). Therefore special attention for the school readiness of the Roma children is necessary to increase the number of Roma children that retain and finish school. Research shows that development and school readiness of young and disadvantaged children can be positively altered by providing systematic early childhood education (Ramey & Ramey, 2004) and high-quality parenting (Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000; Cook, Roggman, & D'zatko, 2012; Hill, 2001; NICHD Early Child Care Research Network, 2002). Positive effects for attending an ECD centre on school readiness of Roma children are described by Walls (2013). Roma children who attended the ECD centre SUMNAL showed a higher level of school readiness than those who did not. On the other side, research on the way in which Roma mothers are raising their children is lacking (UNICEF, 2011a). Because of this lack, the main objective of this study is to obtain knowledge about the way parenting might contribute to school readiness of Roma children. The aim of this study is to provide insights in whether or not there is a correlation between parenting and school readiness of Roma children. Furthermore, this study compares the results based on gender and place of residence. To make a comparison for place of residence, two Roma neighbourhoods with comparable living conditions in two Macedonian cities are selected, namely Topaana in Skopje and Bair in Bitola. The main research question of this study is: 'What is the influence of parenting on the school readiness of Roma boys and girls, and is there a difference between Skopje and Bitola?' Interviews with Roma mothers, Roma children, and the staff from ECD centre SUMNAL in Skopje and ECD centre Life Start in Bitola will be used to answer this question.

# Roma in Macedonia

# **Theoretical background**

After Macedonians (64.18%), Albanians (25.17%) and Turks (3.85%), Roma are the fourth largest group in the country and represent 2.66 % out of a population slightly over 2 million people in Macedonia, considering the 2002 census (Republic of Macedonia - State Statistical Office, 2002 in UNICEF, 2011a). However, due to a combination of civil registration issues and Roma communities who identify themselves as another ethnic group as a result of prejudices and stereotypes the Roma seem to cover a bigger percentage of the total population (UNICEF, 2011a). Unofficial statistics from Romani NGOs suggest that the Roma constitute closer to 6 % of the total population (UNDP, 2006 in UNICEF, 2011a). In Macedonia the Roma are spread across 64 out of the 85 municipalities. With a percentage of 43.06 most of them live in the capital city, Skopje. Within Skopje almost half of them live in the municipalities, namely Bitola, Debar, Gostivar, Kičevo, Kočani, Kumanovo, Prilep, Štip, Tetovo, and Vinica. The remaining 12 % lives in other municipalities in Macedonia (Republic of Macedonia - State Statistical Office, 2002 in UNICEF, 2011a).

In comparison to Roma communities in neighbouring countries, Macedonian Roma communities are relatively coherent. It is likely that Roma communities spread across the

<sup>&</sup>lt;sup>1</sup> Hereafter referred to as 'Macedonia'.

country know about each other, which is not the case in other countries (UNICEF, 2011a). However, the Roma are not a homogenous group, but rather a complex mixture of many subethnic groups (UNDP, 2005; UNICEF, 2011a). More than 90 % of all Roma in Macedonia are Muslim (Roma Education Fund, 2012). Approximately 80 % of the Macedonian Roma speaks the Romani language as their first language. The remaining 20 %, especially the younger generations, speak Turkish, Albanian or Macedonian as their first language (Roma Education Fund, 2012; UNICEF, 2011a). Under the Constitution of the former Yugoslavia the Roma were categorised as 'other minority'. Since the Ohrid Agreement in 2001 the Roma received the status of 'constitutive people' in Macedonia. This acknowledges the Roma as a national minority with all proceeding rights, freedoms, and protections from racial and religious discrimination (UNDP, 2005).

The Roma in Macedonia are sedentary. In most of the cases, they live together in settlements that are separated from the rest of the population (UNICEF, 2011a). The neighbourhoods in which the Roma are settled are often in poor conditions and are lacking basic infrastructure. The Roma are more likely to live in dilapidated houses with less access to heating, electricity, water, and sanitation than other populations (Hoelscher, 2007). Besides, households are overcrowded. Situations in which the Roma are living on less than 5 square meters per family member are not rare, so is sharing house with at least one other family and living with 3 or 4 generations together in one house (Eminova & Milevska-Kostova, 2008; Hoelscher, 2007; UNICEF, 2011a).

Poverty rates among the Roma are much higher than those of Macedonian and Albanian citizens. The amount of Roma households that are living on less than 60 % of the median month income of approximately 94 euros is 63 %. Whereas 27 % of Macedonian households and 29 % of Albanian households live in such conditions (UNDP, 2009 in UNICEF 2011a). Due to the economic crisis in Macedonia, most of the Roma rely on social benefits nowadays. The Roma are traditionally used to make money as musicians or unskilled labourers in the cleaning sector and black market sales (UNDP, 2005). Unemployment rates are with 73 % highest among the Roma in comparison with 31 % amongst Macedonians and 27 % amongst Albanians (UNDP, 2009 in UNICEF, 2011a). Despite efforts by the government to reduce poverty, benefits for the Roma count not more than 14 % (Ministry of Labour and Social Policy, 2009 in UNICEF, 2011a).

One of the main reasons why poverty remains so high among the Roma, is their lack of education. Around 90 % of the Roma registered within the unemployment bureau only finished primary school (Ministry of Labour and Social Policy, 2009 in UNICEF, 2011a). Of the young Roma women (aged 15 to 19) who gave birth or who are pregnant, only 24 % completed primary education. Thereby, illiteracy is still common among the Roma, observations show that 76.6 % of the Roma women aged between 15 and 24 are literate. Amongst the poorest quintile of the Roma population the literacy rates are lowest with 54 %, while amongst the richest quintile of the Roma population 90 % is literate. In contrast, 99.7 % of the women aged between 15 and 24 in the Macedonian population and 96.8 % in the Albanian population are literate (MICS, 2011).

To reduce these inequities the Macedonian government is working towards equity for children by paying more attention to school attendance and performance of Roma children. This is happening since approximately 10 years in the context of the Decade of Roma Inclusion, which runs from 2005 till 2015 (Decade of Roma Inclusion – Republic of Macedonia, 2004; UNICEF, 2011a; UNICEF, 2011b). Equality among children is trying to be reached by increasing the access to education in forms of ECD programmes, primary education and secondary education (Decade of Roma Inclusion – Republic of Macedonia, 2004). The government pays attention to children at a young age, because interventions at an early age may have a greater impact than interventions later in life and are less costly

(Alakeson, 2005 in UNICEF, 2011a; Heckman, 2006 in UNICEF, 2011a). Research from the Scottish Government Health Analytical Services Division (2008 in UNICEF, 2011a) suggests programmes like prenatal and postnatal health care for mothers; parenting education and support; and for children aged 3 to 8 years, early childhood education and care are critical for the health and development of young children from disadvantaged backgrounds.

Roma children have a disadvantaged background. Due to the low socio-economic status of their families, their development is negatively influenced. Even before birth the Roma children are already in a disadvantaged position in comparison to their counterparts. The Roma women are less likely to have the four recommended medical check-ups during pregnancy than Macedonian women (UNICEF, 2013). Of the Roma children 11 % were born with low birth weight (less than 2,500 grams) compared to 6 % in the general population. This carries a range of grave health risks for children (MICS, 2011; UNICEF, 2011a). Thereby, Roma children under the age of 5 are three times more likely to be short for their age than children from the other populations in Macedonia, which indicates chronic malnutrition (MICS, 2011; UNICEF, 2011a; UNICEF 2013). Furthermore, Roma children show delay in their development. On the literacy and numeracy domain only 16 % is on track. For the social-emotional domain 72 % is on track compared to 91 % of the general population. However, on the physical and learning domains almost all children are on track (MICS, 2011; UNICEF, 2011a).

Despite the importance of early interventions is acknowledged (Damovska, Shehu, Janeva, Palcevska, & Samardziska Panova, 2009), still most ECD programmes are missing out on the children who need it the most (UNICEF, 2013). Only 4 % of the children in Roma settlements are reached. Although significant steps towards access to primary education and secondary education have been made, the Roma children are staying behind. Whereas statistics are showing an increase from 86 % in 2005 to 96 % in 2011 in access to primary education among the poor, and access to secondary education increased from 63 % in 2005 to 83 % in 2011. Amongst the Roma children 86 % attended the first grade of primary school and only 38 % enrolment in secondary education. Of the children who should attend secondary school are not attending school at all. Thereby, girls seem to be in a more disadvantaged position than boys, with higher illiteracy rates and higher dropout rates (MICS, 2011; UNICEF, 2013). Furthermore, Roma children who attend school are overrepresented at special schools (UNICEF, 2011a).

So far no in-depth analysis has been done on the reasons why Roma families are not prepared to send their children to school or on the causes of the high dropout rates. However, reasons can be found in the poor economic and social conditions, insufficient preparation of the children for school, the low educational level of their parents and the negative attitudes parents have towards school. Parents value education mainly in terms of better employment prospects. One third believes primary education is sufficient and more than half of the parents believes secondary education is enough; only a small number is expressing the view that their children should earn a university degree. Other reasons can be found in teachers, who tend to have low academic expectations of Roma children. They seem to be unwilling to make additional efforts in activities to advance the cognitive development of Roma children. Child development is generally seen as a spontaneous process rather than the result of organized efforts to encourage the child to develop emotionally, socially, cognitively, and intellectually. Knowledge about the various aspects of early childhood development is largely absent in Roma families (UNICEF, 2011a).

Furthermore, research on the way in which Roma mothers are raising their children is lacking (UNICEF, 2011a). The only available data comes from the Macedonia MICS survey (2011) and gives insight in which way Roma children are disciplined. The survey found that

82 % of the Roma children aged 2-14 years are subject to at least one form of psychological or physical violent discipline method, in 17 % of these cases severe physical punishment was used. These numbers are higher than the country's average of almost 70 % of children that are subject to at least one form of psychological or physical violent discipline method and of which almost 5 % of the cases are severe.

# **School readiness**

School readiness is an often used term in relation to improve the education level, and with that offering a better perspective for the future, of Roma children (Damovska et al., 2009; MICS, 2011; UNICEF, 2011a; UNICEF, 2012). School readiness is the preparedness of young children to succeed at the academic and behavioural demands of school (Welsh, Nix, Blair, Bierman, & Nelson, 2010). During the early years of life children make remarkable progress in their cognitive, linguistic, emotional, social, regulatory, and moral capacities which makes this stage of essential importance for developmental outcomes at a later age (Shonkoff, 2003). All these capacities are affected by cumulative influences of life experience are interlinked and are seen as the predictors for the child's school readiness (Shonkoff, 2003; Damovska et al., 2009; UNICEF, 2011a; UNICEF, 2012). Particular concerns are the delays in school readiness often experienced by children growing up in poverty (Welsh et al., 2010). Lack of school readiness is a concern, because it contributes to a negative early transition to school. As scientific evidence affirms, children who have early failure experiences in school are most likely to drop out of school early (Shonkoff & Phillips, 2000 in Ramey & Ramey, 2004).

With the development of the Early Learning and Development Standards (ELDS) the measurement of a child's school readiness is made possible. To capture a child's school readiness, school readiness is divided in five development domains: Physical health and motor development; Socio-emotional development; Language, communication, and literacy development; Cognitive development and general knowledge acquisition; and Development of approaches to learning (Damovska et al., 2009).

The physical health and motor development of children are key factors in the growing up and learning process (Damovska et al., 2009). Good physical health influences a child's learning process by providing the child with energy and persistence. The other domains of development are all influenced and related to the child's motor development (Kendel, 2003 in Damovska et al., 2009), because the way in which a child develops the ability to sit, walk or uses senses influences the way in which the environment is experienced (Damovska et al., 2009).

Socio-emotional development in the early years is the basis of an individual's overall development in the future. Social skills and emotional development play an important role in the school readiness of children. The development of this domain is related to acquiring and learning new skills which raise self-awareness, self-control, self-confidence and competence in the interactions with the environment and peers, and a positive self-image, which are key factors in the socio-emotional development (Chazen-Cohen, Jerald, & Jand Stark, 2001 in Damovska et al., 2009).

Language, communication, and literacy development is a complex process, which begins at childbirth and is acquired in a specific social and cultural context. Key moment in this development domain is the child's ability to demonstrate starting skills in the mother tongue. Language is needed to express thoughts and feelings and understand other persons. For successful functioning in the society language acquisition and correct use are important (Damovska et al., 2009).

Cognitive development and general knowledge acquisition is the foundation for a child's everyday activities and refers to the increase of a child's intellectual and mental abilities. The strategies a child uses to explore and learn around the world around him/her are

known as the cognitive development. On the other hand, the process of gathering information, which is received through interaction with the outside world, is known as general knowledge acquisition. The aim of this is to actively participate in problem solving and improving critical thinking skills. The stimulation of the cognitive development is seen as the foundation for the success that will be achieved in further education processes (Damovska et al., 2009).

Development of approaches to learning is related to the way in which a child learns and how it gives directions and orientation in the learning process. It is the foundation for the domains Language, communication, and literacy development and Cognitive development and general knowledge acquisition. The professionals involved in the educational process by creating a positive and stimulating learning environment play a key role. In such an environment, a child develops a positive attitude towards learning, which is necessary for school success in the future (Damovska et al., 2009).

Besides a child's school readiness, UNICEF (2012) divides school readiness in "ready schools" and "ready families". "Ready schools" promote the learning of all children and consists of school environments and practices that foster and support a good transition for children into primary school and the later years. The term "ready families" is described as the attitudes and involvement parents and/or caregivers have towards their child's early learning and development and transition to school (UNICEF, 2012). ECD centres support parents, and make them "ready", by educating them about better care for their children in the home environment. Further, literacy courses are provided for illiterate mothers. This gives them the opportunity to read to their children, to have access to written information about child rearing, and to become more aware of the rights and opportunities they have as parents and the rights and opportunities their children have (Van Ravens, 2010).

It is meaningful to notice that the domains of school readiness are embedded within holistic child development. This is important because the holistic development is important in the process of preparing children for school and to develop the ability to participate in divers learning settings (UNICEF, 2012). Holistic child development includes all aspects of survival, development, learning and participation. Besides verbal and intellectual skills and knowledge, it encompasses social abilities, health and nutritional status (Bowman et al., 2001 in UNICEF, 2012).

# **Improving school readiness**

School readiness is affected by and a product of different factors. Factors that are of influence are of social, cultural, economic, policy and historic nature (UNICEF, 2012). These factors can be associated with Bronfenbrenner's ecological system theory. In light of this theory four interrelated levels affect a child's school readiness, namely: micro-, meso-, exo-, and macrosystems. These levels influence the child and in turn the child influences the levels. The microsystem is the immediate setting that is influencing the developing child. It is the direct environment of the child in which he/she interacts face to face with other individuals like parents, teachers and peers. The mesosystem contains the linkages between settings in which the developing child actually participates in, such as the child's home, neighbourhood and (pre-)school. The exosystem is one step further away from the child. It makes connections between settings that a developing child may never enter, but in which events happen that influences what happens in the child's immediate environment, like the conditions of parental employment. The last system, macrosystem, contains overarching patterns of ideology and beliefs maintained by the society and/or culture in which the child grows up (Bronfenbrenner, 2009).

Especially the microsystem of children seems to be of influence on the development of school readiness. At the microlevel children's development is influenced by their health. As mentioned before, under Roma in Macedonia, Roma children have a bigger chance to have poorer health conditions than the other populations in Macedonia. This put them in a

disadvantage position towards school readiness (UNICEF, 2011a). Furthermore, the relations that children have with others seem to be of influence on their school readiness. Although children are active participants in their own development, their life experiences are most powerfully mediated by the nature and quality of the child's most important relationships. Children thrive when the relationships they have provide love, stability, security, responsive interaction, and encouragement of exploration and learning. On the other hand consequences can be severe and long lasting when relationships that are unstable, neglectful, abusive, or disrupted by significant life stresses (Shonkoff, 2003). Parents are assumed to play an important role in the early cognitive and social development of their children, because of the central position that family takes in the early lives of children. The family contains the child's first relations and provides the first environment in which the child learns (Collins, et al., 2000; Cook et al., 2012; UNICEF, 2011a). The quality of parenting seems to affect the child's school readiness and future school performance (Collins et al., 2000; Cook et al., 2012; Hill, 2001; NICHD Early Child Care Research Network, 2002). By the interplay and relation between the different ecological systems children's school readiness is affected by other levels as well, for example: out of cultural believes many Roma are uneasy about education, because it brings their children in contact with children from different cultures (Hancock, 2007 in UNICEF, 2011a). The poor work conditions of the Roma parents and high rates of unemployment make the Roma children particularly vulnerable for delays in their development (UNICEF, 2011a). High rates of poverty, 63 % of the Roma households are living below the poverty line (UNICEF, 2011a), have a negative effect on the development of children. Children from low-income families generally perform worse in school than their counterparts from high-income families do (Hill, 2001).

By making use of the ecological system around young and disadvantaged children the development and school readiness can be positively altered as well (Collins et al., 2000; Cook et al., 2012; Hill, 2001; NICHD Early Child Care Research Network, 2002; Ramey & Ramey, 2004). Research shows that the provision of systematic early childhood education (Ramey & Ramey, 2004) and high-quality parenting can contribute to higher levels of school readiness (Collins et al., 2000; Cook et al., 2012; Hill, 2001; NICHD Early Child Care Research Network, 2002). High-quality parenting is indicated as sensitive, stimulating and supportive maternal behaviour (Collins et al., 2000; Cook et al., 2012; Hill, 2001; NICHD Early Child Care Research Network, 2002). Children growing up in poverty might benefit from ECD interventions that focus on executive functions (Welsh et al., 2010). Early interventions in the form of ECD programmes can have a major positive effect on the developmental course of disadvantaged children. Benefits include higher reading and math scores, understanding of the educational process, increased social competence, more years of education and less placements in special education (Ramey & Ramey, 2004). As shown by research on the influence of the ECD centres SUMNAL on Roma children for school readiness, Roma children who attended SUMNAL were showing more school readiness than those who did not (Walls, 2013). Parenting is assumed to affect the early cognitive and social development of children, because of the central position that family takes in the early lives of children and because it includes environmental and genetic influences (Collins et al., 2000; Cook et al., 2010). The stress associated with low-income environments, which often diminishes early school performances, may be buffered by supportive parenting (Hill, 2001). Children who received higher quality of parenting showed higher pre-academic skills, better language skills, more social skills, and fewer behavioural problems than those who received lower-quality parenting (NICHD Early Child Care Research Network, 2002). Research from the NICHD Early Child Care Research Network (2001) showed that family influences are consistently better predictors of children's outcomes for school readiness than early childcare experiences alone. Other research corresponds with this finding by noting that even for children who did went to an ECD centre, children's developmental outcomes were associated by family circumstances and in specific maternal attributes, attitudes, and behaviours (Clarke-Stewart, Gruber, & Fitzgerald, 1994 in Dworkin, 2003). Positive qualities of parenting are inwardness for children's development and benefit all children, whether they are exclusively reared by their parents or went to an ECD centre (Dworkin, 2003). Parenting seems to have a more influence on children than non-familial influences (Chazan-Cohen et al., 2009). However, by dividing school readiness into "ready families" the ECD centres may positively alter the quality of parenting (Van Ravens, 2010; UNICEF, 2012)

# Parenting

Since parenting is a broad concept, distinction must be made to be able to measure the influence of parenting on school readiness. Even though disagreements about how different parenting practices, goals and values influences cognitive and behavioural development of children in different cultural/ethnic groups exist (Hill, 2001), two parenting constructs that are influencing school readiness can be identified (Zaslow et al., 2006). The first construct involves parental affective responses to the child. This construct is operationalized as support, responsiveness and positive social interaction which are associated with high-quality parenting and on the other hand negative affective responses including hostility and intrusive control associated with low-quality parenting. The second construct entangles the provision of interaction, activities, and environments that encourage the child cognitively and foster learning. This construct can be measured by joint activities, teaching or reading interactions, and the provision of stimulating materials in the child's environment (Zaslow et al., 2006). As Brooks-Gunn and Markman (2005) showed parenting related to school readiness can be made more measureable by defining parenting behaviours into seven categories: nurturance; discipline; language; teaching; monitoring; management; and materials.

Nurturance refers to behaviour that involves ways of showing love, affection, and care. High-quality parenting is generally reflected as expressing warmth, being responsive to the needs of a child, and being sensitive to changes in a child's behaviour. Opposite low-quality parenting include behaviours of detachment, intrusiveness, and negative regard (Brooks-Gunn & Markman, 2005). Children seem to develop better in multiple domains when they receive warm, nurturing, and responsive parenting behaviours (Collins et al., 2000; Chazan-Cohen et al., 2009). Research conducted by Hill (2001) found a positive relation between maternal warmth and acceptance and prereading and premath performances, while hostile parenting was associated with lower prereading and premath scores.

The way parents respond to their child's behaviour, whether they consider it as appropriate or inappropriate, is referred to as discipline. The child's age and gender and parental beliefs, upbringing and culture should be taken into account. Discipline is described as harsh if the parent spanks, slaps, or yells at their child (Brooks-Gunn & Markman, 2005).

Language use between parents and their child is an indicator for school readiness. The number of different words, length of sentences, elaborations on the child's speech, questions asked, and events discussed all contribute to a child's school readiness (Brooks-Gunn & Markman, 2005).

Teaching includes cognitive stimulation, joint attention, explanations, conversations, shared play, and whether parents encourage their child to learn by offering didactic strategies for conveying skills or information (Brooks-Gunn & Markman, 2005; Sidle Fuligni & Brooks-Gunn, 2013). The teaching techniques parents' use are related to the outcomes in the five development domains leading to school readiness (eg. Baumwell, Tamis-LeMonda, & Bornstein, 1997 in Roggman, Cook, Innocenti, Jump Norman, & Christiansen, 2013). Research from Chazan-Cohen et al. (2009) found that supportive parenting during play leads to certain child behaviours and assessments. Their research showed that children whose

parents are more supportive score higher on emotion regulation and have higher vocabulary scores, which both affect the child's school readiness.

The category materials refer to the cognitively and linguistically stimulating materials that are provided to the child at home. The presence of materials like books, toys, music instruments, and drawing materials contribute to the school readiness of a child (Brooks-Gunn & Markman, 2005). A home environment that encourages exploration and learning supports a child's school readiness. Children from homes with more optimal learning environments have more optimal approaches towards learning, higher vocabulary scores, and higher letter-word knowledge than their counterparts who have weaker learning environments at home (Chazan-Cohen et al., 2009).

Monitoring, in other words "keeping track", refers to parental watchfulness when it comes to young children. With older children it involves knowing what the child is doing and with whom he/she is doing it when he/she is outside the home (Brooks-Gunn & Markman, 2005). In terms of school readiness parental involvement in academic activities and school contact initiated by the parents are viewed as contributing. Parental school involvement is positively related to prereading performance (Hill, 2001).

Management encompasses scheduling events, completing scheduled events, and the rhythm of household (Brooks-Gunn & Markman, 2005). In terms of school readiness, structure is important for the socio-emotional development of young children. Rules and limits offered by parents contribute to the structure in a household (Verhoeven, Junger, Van Aken, Deković, & Van Aken, 2010).

These parenting domains are presented in many societies. All parents use or provide these domains in a certain way to their child. However, there are ethnic and racial differences in parenting found on five domains: nurturance, discipline, language, teaching, and materials (Brooks-Gunn & Markman, 2005). The quality of parenting and parental involvement that parents can offer varies by ethnicity and socio-economic background, family structure, school characteristics, age of the child, and parental education (Hill, 2001). Baumrind (1971; 1978) identified three different parenting styles in order to which child-rearing behaviour of parents could be contrasted: authoritarian; authoritative; and permissive. Further research by Maccoby and Martin (1983 in Darling & Steinberg, 1993) expended the parenting styles to four: authoritarian; authoritative; indulgent; and neglectful. The parenting style is considered to be a reflection of two underlying processes, namely the number and type of demands made by the parents, and the contingency of parental reinforcement (Baumrind, 1983 in Darling & Steinberg, 1993).

Parents with an authoritarian style are high in demandingness, but low in responsiveness (Darling, 1999; Darling & Steinberg, 1993). This style is characterized by well-ordered and structured environments with clearly stated rules (Darling, 1999). Parents with this style are obedience- and status-oriented, and expect their orders to be obeyed without explanation (Baumrind, 1991 in Darling 1999). Parents do not only place high demands on their child and expect their child to behave appropriately, but also expect their child to accept their judgements, values, and goals without questioning (Darling, 1999). Mothers are high in negative, harsh control and low in warm, firm control (Brooks-Gunn & Markman, 2005).

Authoritative parents are high on both demandingness and responsiveness (Darling & Steinberg, 1993). Like authoritarian parents, authoritative parents place high demands on their child and expect their child to behave appropriately and obey parental rules, but in contrast they are more open to give and take with their child and make greater use of explanations (Darling, 1999). The parents make use of disciplinary methods that are supportive, and stimulate assertive as well as socially responsible, and self-regulated as well as cooperative behaviour (Baumrind, 1991 in Darling, 1999). Mothers are high in warm, firm control and

low in negative, harsh control (Brooks-Gunn & Markman, 2005). This style clearly seems to lead to better outcomes for children across multiple developmental domains (eg. Baumrind, 1971; Baumrind, 1978; Chazan-Cohen et al., 2009; Collins et al., 2000; Darling, 1999). However, the parenting style that leads to better development of children depends on ethnicity and racial. Children might positively thrive under the influence of other parenting styles as well (Brooks-Gunn & Markman, 2005).

Whereas Baumrind found a permissive style, Maccoby and Martin defined this in indulgent and neglectful (Darling & Steinberg, 1993). Indulgent parents (also referred to as permissive or nondirective) are low in demandingness and high in responsiveness (Darling, 1999; Darling & Steinberg, 1993). Parents with this style are lenient, allow self-regulation, and avoid confrontation with their child (Baumrind, 1991 in Darling 1999). Two types of indulgent parents seem to exist: democratic parents, who are more conscientious, engaged, and committed to their child, and nondirective parents (Darling, 1999). Parents with a neglectful parenting style, also referred to as uninvolved parents, are low in both demandingness and responsiveness. They are generally not involved in their child's live (Darling, 1999; Darling & Steinberg, 1993).

#### **Present research**

Based on the theoretical background some hypothesises can be made about the relation between parenting and school readiness and the differences in this relation for gender and location. The living conditions for the Roma in Topaana and Bair are similar. In both places the Roma are a marginalised minority group. Children grow up in an environment with high poverty rates, low education levels, and a high number of families making use of social benefits. Furthermore, the Roma children of both cities are attending an ECD centre that makes use of the early learning development standards that were designed by UNICEF. On the basis of Bronfenbrenner's ecological theory (2009) it can be expected that the comparability of the ecological systems in the different places make the level of school readiness and parenting similar. The first hypothesis is: *'There is no difference in parenting and school readiness between Skopje and Bitola'*.

By means of differences between boys and girls the literature studies shows a more disadvantaged position for girls. Girls dropout more often than boys and are more often illiterate (MICS, 2011; UNICEF, 2013). However, information about parenting, the development of school readiness in Roma children, and the school results of Roma children are lacking. The second hypothesis is: *'There is no difference in parenting and school readiness between boys and girls'*.

On the basis of the literature study a relation between parenting and school readiness can be assumed (Collins et al., 2000; Cook et al., 2012; Hill, 2001; NICHD Early Child Care Research Network, 2002). The third hypothesis is: *'There is a relation between parenting and school readiness'*. The direction of the assumed relation between parenting and school readiness is unknown, because there is no information available about parenting and the effect of parenting on the child for Roma. The hypothesises are tested for each domain of school readiness and each domain of parenting.

# Method

# **Participants**

The sample (N = 62) for this present study were Roma children (n = 28) in the age of 5 to 6 years who attended an ECD centre, their mothers (n = 28) and staff members of two different ECD centres (n = 6). Of the total number, 14 children (eight boys and six girls) and their mothers lived in Skopje in the neighbourhood Topaana. The children attended the Roma ECD centre SUMNAL for at least two years. This number of children was half the number of children in the age of 5 to 6 years who were attending SUMNAL. They attended the centre

three times a week, one hour each time. The other 14 children and their mothers<sup>2</sup> lived in Bitola in the neighbourhood Bair. The children attended an ECD centre from Life Start. Seven children (three boys and four girls) attended an ECD centre from Life Start for at least two years in a mixed ethnical group. They attended the centre five times a week, two hours each time. The other seven children (five boys and two girls) attended a Roma ECD centre from Life Start since three months. They attended the centre five times a week, one hour and 30 minutes each time. For more detailed information about the mothers, see table 1.

Information about mothers		
	Mothers Skopje ( $N = 14$ )	Mothers Bitola ( $N = 14$ )
Mean age	29.07 ( <i>SD</i> = 5.17)	29.93 ( <i>SD</i> = 7.25)
Average number of children	3 (SD = 1.04)	2.79 (SD = 0.89)
Education		
Illiterate		21,4% ( $n = 3$ )
Primary school not completed	64,3% ( <i>n</i> = 9)	35,7% ( <i>n</i> = 5)
Primary school completed	$35,7\% \ (n=5)$	28,6% ( <i>n</i> = 4)
Secondary school not completed		14,3% (n = 2)
Unemployed	100% (n = 14)	100% (n = 14)
Source of income		
Regular wage job	7,1% (n = 1)	7,1% ( <i>n</i> = 1)
Occasional/seasonal wage job	21,4% ( <i>n</i> = 3)	21,4% ( <i>n</i> = 3)
Social help/unemployment benefit	42,9% ( <i>n</i> = 6)	$64,3\% \ (n=9)$
Combination collecting garbage		7,1% ( <i>n</i> = 1)
and social benefits		
Something else	28,6% ( <i>n</i> = 4)	
Marital status		
Married consensual	42,9% ( <i>n</i> = 6)	42,9% ( <i>n</i> = 6)
Married legal/formal	42,9% ( <i>n</i> = 6)	50% (n = 7)
Divorced	7,1% ( <i>n</i> = 1)	7,1% ( <i>n</i> = 1)
Widowed	7,1% ( <i>n</i> = 1)	

Table 1	
Information	about mothers

# Measures

The influence of parenting on the school readiness of Roma children was measured with a mixed design. Two semi-structured interviews with the staff of the ECD centre SUMNAL and one semi-structured interview with the staff of the ECD centre Life Start were used to gather background information. Main topics were the way the children and mothers live and in which way the ECD centres try to involve the mothers in their child's learning process<sup>3</sup>.

The children's school readiness was measured with the ELDS instrument.<sup>4</sup> The ELDS was developed by the ministry for Labour and Social Policy in cooperation with UNICEF (Damovska et al., 2009) and consisted out of 125 items divided over five domains: 'health and motor development'; 'socio-emotional development'; 'language, communication and literacy development'; cognitive development and general knowledge acquisition'; and 'approaches to learning'. The domain 'health and motor development' had 22 items. In this domain one item ('hand preference established') was added and another item ('gathering toys and arranging room by him-/herself') was replaced for another item ('independent bathroom habits'). The domain 'socio- emotional development' had 24 items. The domain 'language, communication and literacy development' had 24 items. The domain 'language, communication and literacy development' had 24 items. The domain 'language, communication and literacy development' had 24 items.

 $<sup>^{2}</sup>$  One of the interviewed children was raised by her grandmother, so instead of the mother the grandmother was interviewed.

<sup>&</sup>lt;sup>3</sup> For interview staff-members of the ECD centre see appendix I

<sup>&</sup>lt;sup>4</sup> For the ELDS instrument see appendix II

and general knowledge acquisition' had 42 items. The domain 'approaches to learning' had 13 items. The total score of all domains together constitutes the score for 'school readiness'. All items were scored with first step within the development of a skill (code 0), progressing made in developing a certain skill (code 1), or reaching the goal of a particular skill (code 2).

To measure the influence of parenting, parenting was divided in seven subcategories after the work of Brooks-Gun and Markman (2005): nurturance; (harsh) discipline; stimulating language; teaching techniques; materials; monitoring; and management. Because of the overlap in the categories 'stimulating language' and 'teaching techniques', these two were taken together. The questionnaire for mothers was composed with a selection of questions from the Alabama Parenting Questionnaire – Preschool Revision ([APQ-PR] Clerkin, Halperin, Marks, & Policaro, 2007), the Home Literacy Environment Questionnaire ([HLEO] Umek et al., 2005 in Jackson, 2011), the Parent Practice Ouestionnaire ([PPO] Strayhorn & Weidman, 1988), and the Questionnaire for Children Under Five Macedonia: Early Childhood Development (MICS, 2011)<sup>5</sup>. Nurturance, (harsh) discipline, and management were measured with the APQ-PR, stimulating language and teaching techniques with the HLEQ, and materials and monitoring with the PPQ and Questionnaire for Children Under Five Macedonia: Early Childhood Development. The subscales nurturance, discipline, and stimulating language and teaching techniques were measured in a quantitative way by using a likert-scale from 1 (never) to 5 (always). Furthermore the subcategory materials were measured in a quantitative way by scoring the available books and the kind of toys that were provided at home. Qualitative data was used to measure the subcategories monitoring and management. The questionnaire for children was a short version of the Child Puppet Interview - Parent Scales questionnaire ([CPI-P] Sessa, Avenevoli, Steinberg, & Morris, 2001)<sup>6</sup>. With 16 questions, each consisting of two contradictory statements, the children were asked about the way they experienced their mother's behaviour and parenting style. The questionnaire was used to monitor the reliability of the responses of the mothers, because observations at home were not possible.

# Procedures

In order to obtain background information the staff members from SUMNAL and Life Start were interviewed. Furthermore, because of their (almost) daily contact/work with the children, the educators were seen as an important source of knowledge about the children's school readiness, so their educators filled out the ELDS lists. The questionnaires for the mothers and children were provided in Macedonian; written material was first translated into Macedonian and later back-translated into English by bilingual, native Macedonian speakers. Two mothers were able to read and fill out the questionnaire themselves, the other mothers needed help from the educators. The mothers in Skopje were interviewed one by one in the period from 21 February till 24 March 2014. Due to a lack of time, the mothers in Bitola were interviewed in groups from 1 April till 3 April 2014. The researcher in person did not see two mothers in Bitola, but the educator who helped translating and conducting the interviews made a home visit to fill out the questionnaire. The interviews took about half an hour to complete and comprised structured, open-ended questions and several quantitative measures. On 30 January 2014, the researcher in Skopje visited one focus group with mothers about their experiences with the ECD centre. The educators read the questionnaire for children, one by one. In Skopje the children were interviewed in the period from 12 till 21 March 2014. In Bitola the children were interviewed at 2 April and 3 April 2014. After example of Measelle, Ablow, Cowan, and Cowan (1998), and Sessa and colleagues (2001), to comfort the children two identical dolls were used. The dolls were both representing a contradictory statement of which the child had to choose one. Interviews took around 5 minutes to complete. One child

<sup>&</sup>lt;sup>5</sup> For questionnaire mothers see appendix III

<sup>&</sup>lt;sup>6</sup> For questionnaire children see appendix IV

was not able to answer the questions, due to hearing impairment. Parents were asked for permission to interview the children. Anonymity was guaranteed.

# Analysis

The data collected by the questionnaire for mothers were analysed with different tests. To increase reliability and validity of the answers for the subcategories nurturance, harsh discipline, and stimulating learning and teaching techniques a factor analysis was used, because these subcategories are underlying, latent variables. This means that they cannot be measured directly. Factor analysis is a technique to identify groups of clusters of variables, which measure an underlying variable. Cronbach's Alpha was used to measure whether the scales formed by the factor analysis were internal consistent. Cronbach's Alpha indicates the overall reliability of a questionnaire (Field, 2009). The test can be used to confirm whether or not a sample of items is unidimensional. Unidimensional refers to homogeneity, which means that a measure is unidimensional if its items measure a single latent construct (Cortina, 1993). The closer Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. Table 2 gives directions to interpret Cronbach's Alpha (George & Mallery, 2003). By making use of factor analysis and Cronbach's Alpha the following groups of variables were formed. Nurturance was measured with nine questions: 2.3; 2.6; 3.1; 3.3; 3.4; 3.10; 3.12; 3.13; 3.16. The reliability of the scale was good, Cronbach's Alpha = .89. Harsh discipline was measured with five questions: 3.2; 3.7; 3.11; 3.14; 3.19. The reliability of the scale was acceptable, Cronbach's Alpha = .76. Stimulating language and teaching techniques was measured with 14 questions; 5.1 - 5.3; 5.6 - 5.10; 5.12 - 5.17. The reliability of the scale was excellent, Cronbach's Alpha = .91.

# Table 2

Interpretation of Cronbach's Alpha Cronbach's Alpha Internal consistency

-	-
$\alpha \ge 0.9$	Excellent
$0.8 \le \alpha < 0.9$	Good
$0.7 \le \alpha < 0.8$	Acceptable
$0.6 \le \alpha < 0.7$	Questionable
$0.5 \le \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

Descriptive statistics and the Mann-Whitney U-test were used to test whether there was a significant difference in parenting between the mothers from Skopje and the mothers from Bitola. The Mann-Whitney U-test is a non-parametric test that looks at differences between two independent samples (Field, 2009). It measures whether or not a difference between two independent samples relies on coincidence. A significant result implies that a difference between the two groups does not rely on coincidence (Baarda, Goede De, & Dijkum Van, 2007). The test works by ranking the data: the lowest score is ranked with 1, the next highest score with 2, and so on. By doing this low scores are represented by small ranks, and high scores are represented by large ranks. Instead of analysing the actual data, the analysis is carried out on the ranks (Field, 2009). The Mann-Whitney U-test was chosen, because the sample in each city is smaller than 25 persons. With such a small sample the t-test is sensitive for extreme scores and with that less reliable. Furthermore, in appendix V scatterplots of the distribution of the domains nurturance, discipline, stimulating language and teaching techniques, materials: number of books at home, and materials: kind of things played with at home for school readiness can be found. The scatterplots show that the domains do not have a normal distribution, the dots do not form a linear line, which makes a nonparametric test necessary (Baarda et al., 2007).

A two-tailed Kendall's tau was used to test the hypotheses and estimate the correlation between school readiness, it domains, and the different domains in parenting. Kendall's tau is a non-parametric correlation coefficient. The test is a standardized measure of the strength of the relationship between two variables. Kendall's tau is a Pearson's correlation coefficient preformed on data that have been converted into ranked scores (as described for the Mann-Whitney U-test). Scores can vary from -1 (as one variable changes, the other changes in the opposite direction by the same amount), through 0 (as one variable changes the other does not changes at all), to +1 (as one variable changes, the other changes in the same direction by the same amount) (Field, 2009). The chance that a correlation relies on coincidence is small when a significant result is found (Baarda et al., 2007). This test was chosen, because the data set is small with a large number of tied ranks and the data was non-normally distributed. A two-tailed test was used, because the direction of the hypothesises was unknown (Field, 2009). The correlation between school readiness and parenting was measured separately for Skopje and Bitola, and for the children who attended an ECD centre for more than two years.

Besides an evaluation of the results without a separation of gender, the data were evaluated by gender as well. To test the assumption '*there is no difference in school readiness and parenting between boys and girls*' the Mann-Whitney U-test was used. To test if school readiness was similar related with parenting for boys and girls, a two-tailed Kendall's tau was used to estimate the correlation between school readiness and parenting. The answers the mothers gave on the questions about the parenting domains monitoring and management were qualitatively analysed and completed with the answers from the questionnaire for children. Furthermore, the data that were collected by the questionnaire for children were analysed by comparing the data with questions from the questionnaires for mothers. The data that were analysed give information about the reliability of the answers that were given by the mothers.

#### Results

The test results give an answer to the question as formed in the introduction and test whether the hypothesises are sustained or rejected. First, differences between the ECD centres and gender will be explored. Second, the results for the correlation between parenting and school readiness are shown by centre and within each centre by gender.

# Differences between Skopje - SUMNAL and Bitola - Life Start

The descriptive statistics in table 3a and 3b show that the minimum scores for the domains of school readiness were lower in Bitola than in Skopje, while the maximum scores were higher. There was a bigger spread in scores in Bitola, which were reflected in the bigger standard deviation as well. Whereas the mean was (slightly) higher in Skopje for school readiness, socio-emotional development, language, communication, and literacy development, and cognitive development and general knowledge acquisition, the mean was (slightly) higher in Bitola for health and motor development and approaches to learning. The Mann-Whitney U-test does not show significant differences for school readiness and its domains between Skopje and Bitola. However, when the differences for school readiness and its domains were measured between Skopje and the group of children who attended the ECD centre in Bitola for more than two years differences were found. The difference for health and motor development was significant (U = 98,00; p < .0001). The children in Skopje (mean rank 7,50) scored lower on health and motor development than the children in Bitola that attended the ECD centre for more than two years (18,00). There was a significant difference for socioemotional development as well (U = 98,00; p < .0001). The children in Skopje (mean rank 7,50) scored lower on socio-emotional development than the children in Bitola that attended the ECD centre for more than two years (mean rank 18,00). Furthermore, there was a significant difference for approaches to learning (U = 84,00; p < .01). The children in Skopje (mean rank 8,50) scored lower on approaches to learning than the children in Bitola that attended the ECD centre for more than two years (mean rank 16,00). Finally, there was a

significant difference for school readiness (U = 86,50; p < .01). The children in Skopje (mean rank 8,32) scored lower on school readiness than the children in Bitola that attended the ECD centre for more than two years (mean rank 16,36).

The scores for parenting can be found in the same tables. The minimum score for nurturance was lower in Skopje, while the maximum score for nurturance was the same in both places; the mean score was again lower in Skopje. The minimum score, maximum score, and mean for harsh discipline was lower in Bitola. The minimum score for stimulating language and teaching techniques was ten points lower in Bitola, while the maximum score was one point higher. Though the mean for this parenting domain was more than ten points higher in Bitola. The minimum and maximum score was the same for the number of books provided at home, however in Bitola the mean was slightly higher.

The Mann-Whitney U-test shows a significant difference in parenting between the mothers from Skopje and the mothers from Bitola. The difference for nurturance (U = 179,00; p < .001) was significant. Mothers in Skopje preformed less nurturance (mean rank 8,71) than mothers in Bitola (mean rank 20,29). The difference for harsh discipline (U = 19,50; p < .001) was significant as well. Mothers in Skopje (mean rank 20,11) preformed more harsh discipline than mothers in Bitola (mean rank 8,89). Furthermore there was a significant difference for stimulating language and teaching techniques (U = 146,50; p < .05). Mothers in Skopje (11,04) preformed less stimulating language and teaching techniques than mother in Bitola (17,96). Domain materials: kind of toys played with at home is not shown in table 1a and 1b, because of different measurement. However, a significant difference for this domain (U = 152.00; p < .05) was found as well. Mothers in Skopje (10.64) exposed their children to different toys than mothers in Bitola (18,36). For the domain materials: number of books at home no significant difference was found. With only comparing the children that attended an ECD centre for more than two years, the significant differences in parenting between mothers from Skopje and mothers from Bitola were found as well even for the domain materials: number of books at home. The difference for nurturance (U = 94,00; p < .001) was significant. Mothers in Skopje preformed less nurturance (mean rank 7,79) than mother in Bitola (mean rank 17,43). The difference for harsh discipline (U = 4,00; p < .001) was significant as well. Mothers in Skopje (mean rank 14,21) performed more harsh discipline than mothers in Bitola (mean rank 4,57). Furthermore there was a significant difference for stimulating language and teaching techniques (U = 83,50; p < .01). Mothers in Skopje (8,54) preformed less stimulating language and teaching techniques than mother in Bitola (15,93). Domain materials: number of books at home differed significant as well (U = 82.00; p < .05). The mothers in Skopje (mean rank 8,64) provided fewer books at home than mothers in Bitola (mean rank 15,71). Domain materials: kind of toys played with at home is not shown in table 1a and 1b, because of different measurement. However, a significant difference for this domain (U = 94.50; p < .001) was found as well. Mothers in Skopie (7.75) exposed their children to different toys than mothers in Bitola (17,50).

The qualitative data show differences between Skopje and Bitola as well. In Skopje four educators taught the children, three times a week for one hour, whereas the two groups in Bitola were taught by two educators, five times a week for one and a half hour to two hours. The ECD centre SUMNAL in Skopje was willing to expend the time, but there was not enough space and money. SUMNAL was not exclusively focussing on early childhood development, while Life Start was. In Skopje the children were shown how to make or do something, but instead of only giving the necessary help the educators or mothers were doing the activity by themselves with some help when necessary. In Skopje old students were welcomed to visit and help the centre to be an example for the children. Mothers were allowed to stay during the lesson in Skopje, so they were more aware of what their children

were doing at the centre. In Bitola the children were only in the company of the educators and at the new centre sometimes an older brother or sister, because the vision of Life Start was that children concentrated better on their work when they were only with educators. At SUMNAL there was a special employer who discussed topics about early childhood development with the mothers on a daily base and talked with them about the themes that were taught to the children by the educators. In Bitola the educators spoke with the mothers themselves about these topics after the lesson or by making home visits. In Skopje Roma spoke the Romani language, whereas in Bitola they spoke Macedonian. In Skopje 11 mothers stated that the ECD centre was important for their child because it helped their child to learn things, and getting them ready for school. Three mothers specified the importance of learning the Macedonian language. Two mothers stated that the ECD centre was important, because they did not have financial means to bring their child to a kindergarten. All mothers said that the ECD centre contributed by raising their child, because of the study opportunities that were offered. Special mentioned domains were the language (six times), motor skills (four times), and playing/communicating with other children (four times). In Bitola besides the importance of learning, ten mothers said that the centre was important because their child was able to socialise there. One mother did not notice a contribution of the centre by raising her child. The other mothers said the centre contributed to raising their child, because the children learn/study at the centre. At the Life Start centre where the children were attending since three months the mothers asked the researcher for benefits and threatened to stop bringing their child if nothing was given.

# Differences between boys and girls

# Skopje

Table 3a shows that girls were having a higher minimum score, higher maximum score, and higher mean than boys for school readiness and the subdomains. Furthermore, the standard deviation was lower on every domain for girls, which indicates that the spread in scores was smaller for girls than the boys. The scores for parenting can be found in the same tables. The minimum score, maximum score, and mean for nurturance was higher for girls. The minimum score for harsh discipline was similar, but the maximum score and mean were higher for girls. The minimum score for stimulating language and teaching techniques was lower for boys, while the maximum score and mean were higher for boys. The minimum score for number of books provided at home was for both genders the same, but the maximum score and mean were higher for girls.

The Mann-Whitney U-test shows significant differences for boys and girls on school readiness and the domains. A significant difference was found for school readiness (U = ; p < .01), girls (mean rank 11,00) scored significantly higher than boys (mean rank 4,88). The difference on health and motor development (U = 41,00; p < .05) was significant, girls (mean rank 10,33) scored significantly higher than boys (mean rank 5,38). Language, communication, and literacy development (U = 42,00; p < .05) differed significantly, girls (mean rank 10,50) scored significantly higher than boys (mean rank 5,25). The difference on cognitive development and general knowledge acquisition (U = 40,00; p < .05) was significant as well; girls (mean rank 10,17) scored significantly higher than boys (mean rank 5,50). The difference on approaches to learning (U = 43,00; p < .05) was significant, girls (mean rank 10,67) scored significantly higher than boys (mean rank 5,12). However, there were no significant differences between boys and girls for socio-emotional development and the parenting domains.

Qualitative data shows that seven mother believed that boys and girls are the same and were raised in the same manner. One mother said that boys and girls have different needs, so she raised them differently. Six mothers were only having daughters or sons, so they could not compare. During a focus group mothers said that there has been a shift in their way of

thinking. The mothers became aware that education is equally important to boys and girls. In the past, only boys were educated, but they did not mind educating girls any longer. While mixing boys and girls was not allowed in the past, the mothers attending the focus group did not have a problem with that.

# Bitola

Table 3b shows that girls were having a higher minimum score, higher maximum score, and higher mean than boys for school readiness and the subdomains. The scores for parenting can be found in the same tables. The minimum score and maximum score for nurturance were the same for boys and girls, but the mean and standard deviation were slightly higher for girls. The minimum score for harsh discipline was similar, the maximum score was lower for girls, but the mean was slightly higher for girls. The minimum score for stimulating language and teaching techniques was lower for boys, the maximum score was similar, and the mean was higher for girls. The minimum score for number of books provided at home was for both genders the same, but the maximum score and mean was higher for girls.

The Mann-Whitney U-test shows significant differences for boys and girls on school readiness (U = 39,50; p < .05), girls (mean rank 10,17) scored significantly higher than boys (mean rank 5,50). On the domain language, communication, and literacy development (U = 40,00; p < .05) girls (mean rank 10,08) scored significantly higher than boys (mean rank 5,56) as well. However, there were no significant differences for the other domains of school readiness and for the parenting domains between boys and girls.

Qualitative data shows that eight mothers believed that boys and girls are the same and were raised in the same manner. Four mothers said that boys and girls were raised in a different way; two of them said that boys make more trouble; one mother said that they educate girls to do house work, and one mother said that boys and girls have different needs. Two mothers were only having sons, so they could not compare.

	Ν	/linimu	ım	Ν	laximu	m		Mean		St	d. deviati	on
School readiness	78 <sup>a</sup>	78 <sup>b</sup>	135 <sup>c</sup>	182 <sup>a</sup>	147 <sup>b</sup>	182 <sup>c</sup>	142,50 <sup>a</sup>	126,88 <sup>b</sup>	163,33°	26,68 <sup>a</sup>	22,02 <sup>b</sup>	16,15 <sup>c</sup>
Health and motor development	16 <sup>a</sup>	16 <sup>b</sup>	25 <sup>c</sup>	34 <sup>a</sup>	30 <sup>b</sup>	34 <sup>c</sup>	25,71 <sup>a</sup>	23,25 <sup>b</sup>	29,00 <sup>c</sup>	4,87 <sup>a</sup>	4,17 <sup>b</sup>	3,85 <sup>c</sup>
Socio-emotional development	16 <sup>a</sup>	16 <sup>b</sup>	28 <sup>c</sup>	39 <sup>a</sup>	37 <sup>b</sup>	39 <sup>c</sup>	29,50 <sup>a</sup>	27,75 <sup>b</sup>	31,83 <sup>c</sup>	6,50 <sup>a</sup>	7,50 <sup>b</sup>	4,45 <sup>c</sup>
Language, communication, literacy development	16 <sup>a</sup>	16 <sup>b</sup>	25 <sup>°</sup>	38 <sup>a</sup>	34 <sup>b</sup>	38 <sup>c</sup>	28,14 <sup>a</sup>	24,75 <sup>b</sup>	32,67 <sup>c</sup>	6,47 <sup>a</sup>	5,75 <sup>b</sup>	4,41 <sup>°</sup>
Cognitive development	24 <sup>a</sup>	24 <sup>b</sup>	41 <sup>c</sup>	63 <sup>a</sup>	53 <sup>b</sup>	63 <sup>c</sup>	46,50 <sup>a</sup>	42,25 <sup>b</sup>	52,17 <sup>c</sup>	9,40 <sup>a</sup>	8,65 <sup>b</sup>	7,57°
Approaches learning	6 <sup>a</sup>	$6^{b}$	16 <sup>c</sup>	21 <sup>a</sup>	19 <sup>b</sup>	21 <sup>c</sup>	12,64 <sup>a</sup>	8,88 <sup>b</sup>	17,67 <sup>°</sup>	5,65 <sup>a</sup>	4,36 <sup>b</sup>	1,86 <sup>c</sup>
Nurturance	30 <sup>a</sup>	30 <sup>b</sup>	32 <sup>c</sup>	45 <sup>a</sup>	39 <sup>b</sup>	45 <sup>c</sup>	35,30 <sup>a</sup>	33,75 <sup>b</sup>	37,36 <sup>°</sup>	4,32 <sup>a</sup>	3,06 <sup>b</sup>	5,15 <sup>c</sup>
Harsh discipline	10 <sup>a</sup>	10 <sup>b</sup>	10 <sup>c</sup>	24 <sup>a</sup>	20 <sup>b</sup>	24 <sup>c</sup>	15,21 <sup>a</sup>	14,50 <sup>b</sup>	16,17 <sup>c</sup>	3,97 <sup>a</sup>	3,12 <sup>b</sup>	5,04 <sup>c</sup>
Stimulating language and teaching techniques	27 <sup>a</sup>	27 <sup>b</sup>	29°	65 <sup>a</sup>	65 <sup>b</sup>	57 <sup>c</sup>	40,64 <sup>a</sup>	39,75 <sup>b</sup>	41,83°	12,88 <sup>a</sup>	14,45 <sup>b</sup>	11,65°
Materials: number of books <sup>d</sup>	$1^{a}$	$1^{b}$	1 <sup>c</sup>	5 <sup>a</sup>	4 <sup>b</sup>	5 <sup>c</sup>	2,29 <sup>a</sup>	2,00 <sup>b</sup>	2,67 <sup>c</sup>	1,44 <sup>a</sup>	1,07 <sup>b</sup>	1,86 <sup>c</sup>
Ν	14 <sup>a</sup>	$8^{b}$	6 <sup>c</sup>	14 <sup>a</sup>	$8^{b}$	6 <sup>c</sup>	14 <sup>a</sup>	$8^{b}$	6 <sup>c</sup>	14 <sup>a</sup>	$8^{b}$	6 <sup>c</sup>

# Table 3aDescriptive statistics of Skopje: SUMNAL

*Note.* <sup>a</sup> complete sample Skopje, <sup>b</sup> boys sample Skopje, <sup>c</sup> girls sample Skopje. <sup>d</sup> Materials: number of books at home: 1 = 0 books; 2 = 1-2 books; 3 = 3-4 books; 4 = 5-6 books; 5 = 7 > books

	Μ	linimu	m	Ν	laximu	m		Mean		Std	. deviatio	on
School readiness	33 <sup>a</sup>	33 <sup>b</sup>	77 <sup>c</sup>	239 <sup>a</sup>	220 <sup>b</sup>	239 <sup>c</sup>	130 <sup>a</sup>	99,75 <sup>b</sup>	170,33 <sup>c</sup>	77,26 <sup>a</sup>	67,51 <sup>b</sup>	75,66 <sup>c</sup>
Health and motor development	9 <sup>a</sup>	9 <sup>b</sup>	24 <sup>c</sup>	44 <sup>a</sup>	40 <sup>b</sup>	44 <sup>c</sup>	29,29 <sup>a</sup>	25,38 <sup>b</sup>	34,50 <sup>c</sup>	11,06 <sup>a</sup>	11,77 <sup>b</sup>	8,17 <sup>c</sup>
Socio-emotional development	6 <sup>a</sup>	6 <sup>b</sup>	18 <sup>c</sup>	48 <sup>a</sup>	43 <sup>b</sup>	48 <sup>a</sup>	29,14 <sup>a</sup>	23,75 <sup>b</sup>	36,33°	15,77 <sup>a</sup>	15,80 <sup>b</sup>	13,72 <sup>c</sup>
Language, communication, literacy development	$2^{a}$	2 <sup>b</sup>	9°	46 <sup>a</sup>	42 <sup>b</sup>	46 <sup>a</sup>	19,50 <sup>a</sup>	13,25 <sup>b</sup>	27,83 <sup>c</sup>	16,99ª	15,85 <sup>b</sup>	15,89 <sup>c</sup>
Cognitive development	8 <sup>a</sup>	8 <sup>b</sup>	18 <sup>c</sup>	80 <sup>a</sup>	71 <sup>b</sup>	80 <sup>a</sup>	38.79 <sup>a</sup>	28,00 <sup>b</sup>	53,17 <sup>c</sup>	27,18 <sup>a</sup>	20,79 <sup>b</sup>	29,70 <sup>c</sup>
Approaches learning	2 <sup>a</sup>	2 <sup>b</sup>	5°	26 <sup>a</sup>	24 <sup>b</sup>	26 <sup>a</sup>	13,29 <sup>a</sup>	9,38 <sup>b</sup>	18,50 <sup>°</sup>	9,34 <sup>a</sup>	7,31 <sup>b</sup>	9,73 <sup>c</sup>
Nurturance	40 <sup>a</sup>	40 <sup>b</sup>	40 <sup>b</sup>	45 <sup>a</sup>	45 <sup>b</sup>	45 <sup>b</sup>	42,69 <sup>a</sup>	42,43 <sup>b</sup>	43,05 <sup>c</sup>	2,28 <sup>a</sup>	2,33 <sup>b</sup>	2,38 <sup>c</sup>
Harsh discipline	8 <sup>a</sup>	8 <sup>b</sup>	8 <sup>b</sup>	14 <sup>a</sup>	14 <sup>b</sup>	13 <sup>b</sup>	10,14 <sup>a</sup>	10,13 <sup>b</sup>	10,17 <sup>c</sup>	1,83 <sup>a</sup>	2,03 <sup>b</sup>	1,72 <sup>c</sup>
Stimulating language and teaching techniques	17 <sup>a</sup>	17 <sup>b</sup>	43 <sup>b</sup>	66 <sup>a</sup>	66 <sup>b</sup>	66 <sup>b</sup>	52,24 <sup>a</sup>	50,17 <sup>b</sup>	55°	12,90 <sup>a</sup>	15,42 <sup>b</sup>	9,14 <sup>c</sup>
Materials: number of books <sup>d</sup>	$1^{a}$	$1^{b}$	$1^{b}$	5 <sup>a</sup>	4 <sup>b</sup>	5 <sup>°</sup>	2,57 <sup>a</sup>	2,13 <sup>b</sup>	3,17 <sup>c</sup>	1,65 <sup>a</sup>	1,55 <sup>b</sup>	1,72 <sup>c</sup>
Ν	14 <sup>a</sup>	8 <sup>b</sup>	6 <sup>c</sup>	14 <sup>a</sup>	8	6	14 <sup>a</sup>	$8^{b}$	6 <sup>c</sup>	14 <sup>a</sup>	$8^{b}$	6 <sup>c</sup>

Table 3b	
Descriptive statistics of Bitola: Life Start	

Note.

<sup>a</sup> complete sample Bitola, <sup>b</sup> boys sample Bitola, <sup>c</sup> girls sample Bitola. <sup>d</sup> Materials: number of books at home: 1 = 0 books; 2 = 1-2 books; 3 = 3-4 books; 4 = 5-6 books; 5 = 7 > books

# Correlation between parenting and school readiness

# Skopje

Table 4a shows that parenting was not correlated with school readiness by analysing the data for the total sample in Skopje.

# Table 4a

Skopje: Correlation ( $\tau$ ) parenting and school readiness

	Nurturance	Harsh discipline	Stimulating language and teaching techniques	Materials: number of books at home	Materials: kind of things played with at home
School readiness	.18	.06	.15	.24	12
Health and motor development	.18	02	.01	.17	13
Socio-emotional development	.06	15	.11	.19	.13
Language, communication, literacy development	.18	05	.15	.04	03
Cognitive development	.14	.23	.19	.19	12
Approaches to learning	.07	.17	.01	.23	03

# **Skopje - Boys**

Table 4b shows that for boys harsher discipline was related with better cognitive development and general knowledge acquisition ( $\tau = .62$ , p < .05). There was no correlation between the other parenting domains and school readiness domains.

	Nurturance	Harsh discipline	Stimulating language and teaching techniques	Materials: number of books at home	Materials: kind of things played with at home
School readiness	.37	.35	.52	.04	.36
Health and motor development	.34	.20	.26	25	.23
Socio-emotional development	.18	11	.18	24	.27
Language, communication,	.44	.08	.37	37	.50
literacy development					
Cognitive development	.44	.62*	.52	.04	.27
Approaches to learning	23	.32	.00	.43	.47

Table 4b					
Skonie bovs:	Correlation ( $\tau$	) narenting	and se	chool	readiness

*Note.* \* *p* < .05.

The qualitative data for monitoring show no big differences between the boys who scored lower than the mean and the boys who scored higher than the mean. All mothers said that they knew all the friends of their child. Of the six boys who were scoring higher than the mean, two were left alone in the care of another child younger than 10 years old and were going outside on their own. While the two boys who were scoring lower than the mean on school readiness were never left alone in the care of another child younger than 10 years old and did not go outside on their own. All boys were often or always brought to the ECD centre by their mother. Of the boys who were scoring lower on school readiness than the mean, one mother said she attended about half of the meetings for parents at the ECD centre, while all the other mothers attended a meeting often and one mother always. Monitoring did not seem to be related with the level of school readiness of boys.

The qualitative data for management show whether or not the boys were raised with a strict rhythm, structure, and rules. All mothers described a regular weekday and weekend. The mothers gave comparable descriptions of the weekdays. The weekends were similar to weekdays for two of the six boys who scored higher than the mean on school readiness. For one boy who scored lower than the mean the weekends were similar as well. To get more insight in the daily rhythm of the family, questions were asked about eating patterns and the regularity of bathing and sleeping times. There were small differences between the boys who scored higher than the mean and the boys who scored lower than the mean for eating patterns. The boys who scored lower than the mean seemed to have more structure when it came to eating patterns. Three boys who scored higher than the mean did not have to sit down at the table, the other three did sit down at the table. The boys who scored lower than the mean did have to sit down at the table. Differences in the regularity of bathing time were not found. The regulation of sleeping times was slightly different; the boys who scored lower than the mean seemed to have less structure when it comes to sleeping time. The boys who scored higher than the mean were told when to go to bed by their mother, while the boys who scored lower than the mean were not told when to go to bed by their mother. Differences in the use of strict well-established rules were not found. All mothers used at least half of the time or more often strict well-established rules. Overall it seems that rhythm, structure, and rules did not influence the school readiness of boys.

# Skopje - girls

Table 4c shows that for girls there was a significant relation between a higher number of books that were available at home and better socio-emotional development ( $\tau = .93$ , p < .05). There was no correlation between the other parenting domains and school readiness domains.

	Nurturance	Harsh discipline	Stimulating language and teaching techniques	Materials: number of books at home	Materials: kind of things played with at home
School readiness	55	47	47	.45	.00
Health and motor development	50	69	55	.54	19
Socio-emotional development	21	41	14	.93*	.28
Language, communication, literacy development	55	47	47	.45	.00
Cognitive development	55	07	33	.00	18
Approaches to learning	15	07	07	16	39

Table 4c

*Skopje girls: Correlation* ( $\tau$ ) *parenting and school readiness* 

*Note.* \* *p* < .05.

The qualitative data for monitoring showed no big differences between the girls who scored lower than the mean and the girls who scored higher than the mean. All mothers said that they knew all the friends of their child. Of the three girls who scored higher than the mean, two were never left alone in the care of another child younger than 10 years old, while one girl was sometimes left alone in the care of another child younger than 10 years, none of them went outside on her own. Three girls were scoring lower than the mean on school readiness, two were never left alone in the care of another child younger than 10 years old, however one girl did go outside on her own. One girl was left alone in the care of another child younger than 10 years old, however one girl did go outside on her own. In both groups two girls were often or always brought to the ECD centre by their mother, while one was never brought by her mother but by a sibling. From the girls who scored higher than the mean two mothers attended a meeting often and one mother about half of the time. Of the girls who were scoring lower on school readiness than the mean, one mother said she attended the meetings for parents at the ECD centre always, one often, and one never. Monitoring did not seem to be related to the level of school readiness of the girls.

The qualitative data for management show whether or not the girls were raised with a strict rhythm, structure, and rules. All mothers described a regular weekday and weekend. The mothers gave comparable descriptions of the weekdays. The weekends were similar to weekdays for one of the three girls who scored higher than the mean on school readiness. This is similar for the girls who scored lower than the mean. To get more insight in the daily rhythm of the family, questions were asked about eating patterns and the regularity of bathing and sleeping times. There were no differences between the girls when it came to eating patterns. Girls who scored lower than the mean were having slightly more strict rhythm for bathing times. Of the girls who scored higher than the mean one girl received a bath at a particular hour at least five times a week, two at least three times a week. Two girls who scored lower than the mean received a bath at least five times a week at a particular time, one girl at least three times. A slightly more strict rhythm and rules for girls who scored lower than the mean was found for sleeping times as well. From the girls who scored higher than the mean two girls were told when to go to bed by their mother. Two girls went to sleep at least three times a week at a regular time, one girl at least five times a week. Girls that scored lower than the mean were told by their mother at what time they need to go to bed. Two were going to bed at a regular time at least five times a week; the other one did not go to bed at a regular time. Differences in the use of strict well-established rules were not found. Overall the management of the girls who scored lower than the mean seemed to be slightly stricter, but to conclude that management influenced the school readiness of girls the differences are too small.

# Bitola

Table 5a shows that there were parenting domains correlated with school readiness. A higher level of nurturance was related with a higher level of school readiness ( $\tau = .64$ , p < .64) .01), better health and motor development ( $\tau = .70$ , p < .01), better socio-emotional development ( $\tau = .67, p < .01$ ), better language, communication, and literacy development ( $\tau$ = .62, p < .01), better cognitive development and general knowledge acquisition ( $\tau = .73$ , p < .01) .01), and better approaches to learn ( $\tau = .73$ , p < .01). Further, more stimulating language and teaching techniques were related with a higher level of school readiness ( $\tau = .50, p < .05$ ), better health and motor development ( $\tau = .46$ , p < .05), better socio-emotional development ( $\tau$ = .48, p < .05), better language, communication, and literacy development ( $\tau = .50, p < .05$ ), better cognitive development and general knowledge acquisition ( $\tau = .48$ , p < .05), and better approaches to learn ( $\tau = .53$ , p < .01). There was also a significant correlation between the materials mothers provided for their children and the children's school readiness. More books at home were related with a higher level of school readiness ( $\tau = .78$ , p < .01), better health and motor development ( $\tau$  = .76, p < .01), better socio-emotional development ( $\tau$  = .79, p < .001), better language, communication, and literacy development ( $\tau = .70$ , p < .01), better cognitive development and general knowledge acquisition ( $\tau = .79$ , p < .01), and better approaches to learn ( $\tau = .77$ , p < .01). More diversity of materials to play with at home was related with a higher level of school readiness ( $\tau = .70$ , p < .01), better health and motor development ( $\tau = .68, p < .01$ ), better socio-emotional development ( $\tau = .72, p < .01$ ), better language, communication, and literacy development ( $\tau = .65$ , p < .01), better cognitive development and general knowledge acquisition ( $\tau = .79$ , p < .01), and better approaches to learn ( $\tau = .74$ , p < .01). There was no correlation between harsh discipline and school readiness.

# Table 5a

*Bitola: Correlation* ( $\tau$ ) *parenting and school readiness* 

	Nurturance	Harsh discipline	Stimulating language and teaching techniques	Materials: number of books at home	Materials: kind of things played with at home
School readiness	.64**	23	.50*	.78**	.70**
Health and motor development	.70**	32	.46*	.76**	.68**
Socio-emotional development	.67**	30	.48*	.79**	.72**
Language, communication,	.62**	15	.50*	.70**	.65**
literacy development			101		
Cognitive development	.73**	33	.48*	.79**	.79**
Approaches to learning	.73**	24	.53**	.77**	.74**

*Note.* \* p < .05. \*\* p < .01.

# Bitola - boys

Table 5b shows the correlation between parenting and school readiness for boys in Bitola. A higher level of nurturance was related with a higher level of school readiness ( $\tau = .81, p < .01$ ), better health and motor development ( $\tau = .73, p < .05$ ), better socio-emotional development ( $\tau = .82, p < .01$ ), better language, communication, and literacy development ( $\tau = .79, p < .05$ ), better cognitive development and general knowledge acquisition ( $\tau = .89, p < .05$ )

.01), and better approaches to learn ( $\tau = .81$ , p < .01). There was a significant correlation between the materials mothers provided for their children and the children's school readiness. More books at home were related with a higher level of school readiness ( $\tau = .73$ , p < .05), better health and motor development ( $\tau = .73$ , p < .05), better socio-emotional development ( $\tau = .75$ , p < .05), better language, communication, and literacy development ( $\tau = .61$ , p < .05), better cognitive development and general knowledge acquisition ( $\tau = .73$ , p < .05), and better approaches to learn ( $\tau = .73$ , p < .05). More diversity of materials to play with at home was related with a higher level of school readiness ( $\tau = .74$ , p < .01), better health and motor development ( $\tau = .65$ , p < .05), better socio-emotional development ( $\tau = .75$ , p < .05), better language, communication, and literacy development ( $\tau = .72$ , p < .05), better cognitive development ( $\tau = .74$ , p < .05). There was no correlation between harsh discipline and school readiness, and stimulating language and teaching techniques and school readiness.

Table 5b

Bitola boys:	Correlation	(τ)	parenting and	school	readiness
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	Nurturance	Harsh discipline	Stimulating language and teaching	Materials: number of books at home	Materials: kind of things played with at
			techniques		home
School readiness	.81**	16	.47	.73*	.74**
Health and motor development	.73*	24	.40	.73*	.65*
Socio-emotional development	.82**	12	.52	.75*	.75*
Language, communication,	.79*	.04	.57	.61*	.72*
literacy development					
Cognitive development	.89**	16	.40	.73*	.82**
Approaches to learning	.81**	08	.55	.73*	.74*

*Note.* \* p < .05, \*\* p < .01.

The qualitative data for monitoring do not show differences between the knowledge about the friends of their child, the number of times the mothers brought their child to the ECD centre, and how often they attended a meeting for parents at the ECD centre. However, little differences between boys who scored higher than the mean and boys who scored lower than the mean were found for how often mothers left their child alone. The three boys who scored higher than the mean of another child younger than 10 years old and none of them went outside on his own. Of the five boys who scored lower than 10 years old, however three boys did go outside on their own. One boy was left alone in the care of another child and did go outside on his own. Monitoring seemed slightly related to the level of school readiness. More monitoring leaded to a higher level of school readiness.

The qualitative data for management show whether or not the boys were raised with a strict rhythm, structure, and rules. All mothers described a regular weekday and weekend. The mothers gave comparable descriptions of the weekdays, though wake up and sleeping times differed. The weekends were different than weekdays for all boys who scored higher than the mean on school readiness. Two boys who scored lower than the mean were having a weekend that looked similar as weekdays. To get more insight in the daily rhythm of the family, questions were asked about eating patterns and the regularity of bathing and sleeping times. There were no differences between the boys who scored higher than the mean and the boys who scored lower than the mean for eating patterns. Differences in the regularity of bathing time were found. Of the boys who scored higher than the mean no one received a bath at a particular hour. One boy who scored lower than the mean received a bath at least five times a week at a particular time, three boys at least three times, and one boy never at a regular time.

The regulation of sleeping times did not differ. Differences in the use of strict well-established rules were found. Of the boys who scored higher than the mean one of the mothers always used strict well-established rules and two mothers used strict well-established rules once in a while. Three of the mothers from the boys who scored lower than the mean always used strict well-established rules, while two mothers used them about half of the time. Overall it seemed that the boys who scored lower than the mean received slightly more strict rhythm, structure, and rules, so this seems to be negative for the level of school readiness.

#### **Bitola - girls**

Table 5c shows the correlation between parenting domains and school readiness domains for girls in Bitola. A higher level of nurturance was related with better health and motor development ( $\tau = .81$ , p < .05), and better approaches to learn ( $\tau = .81$ , p < .05). No correlation was found between nurturance and the other domains of school readiness. Furthermore, less harsh discipline was related with a higher level of school readiness ( $\tau = -$ .93, p < .05), better health and motor development ( $\tau = -.86$ , p < .05), better socio-emotional development ( $\tau = -.93$ , p < .05), better language, communication, and literacy development ( $\tau$ = -.83, p < .05), and better cognitive development and general knowledge acquisition ( $\tau = -$ .93, p < .05). No correlation was found between harsh discipline and approaches to learn. More stimulating language and teaching techniques were related with better language, communication, and literacy development ( $\tau = .73$ , p < .05), though there was no correlation found with other domains of school readiness. There was also a significant correlation between the materials mothers provided for their children and the children's school readiness. More books at home were related with a higher level of school readiness ( $\tau = .89$ , p < .05), better socio-emotional development ( $\tau = .81, p < .05$ ), better language, communication, and literacy development ( $\tau = .86$ , p < .05), and better cognitive development and general knowledge acquisition ( $\tau = .89, p < .05$ ). More diversity of materials to play with at home was not related with school readiness.

#### Nurturance Harsh Stimulating Materials: Materials: kind discipline language and of things played number of with at home teaching books at home techniques School readiness .73 -.93\* .69 .89\* .76 .81\* .73 Health and motor development -.86\* .55 .76 Socio-emotional development .73 -.93\* .55 .81\* .76 .73\* .73 Language, communication, .70 -.83\* .86\* literacy development -.93\* .89\* .76 Cognitive development .73 .69 .81\* Approaches to learning -.50 .55 .73 .76

#### Table 5c

Bitola girls:	Correlation	(τ)	parenting	and	school	readiness
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*Note.* \* p < .05.

The qualitative data for monitoring do not show differences between the knowledge about the friends of their child, and the number of times the mothers brought their child to the ECD centre. However, two little differences were found. Of the two girls who were scoring lower than the mean on school readiness, one of them went outside on her own. The other girls never went outside on their own. Both mothers of the girls who scored lower attended meetings for parents at the ECD centre, but just since three months. Three mothers of the girls, who scored higher than the mean attended the meetings, one did not. Monitoring seemed to be slightly related with the level of school readiness of girls, the more monitoring the higher the level of school readiness.

The qualitative data for management show whether or not the girls were raised with a strict rhythm, structure, and rules. All mothers described a regular weekday and weekend. The mothers gave comparable descriptions of the weekdays, though wake up and sleeping times differed. The weekends were similar as weekdays for one of the four girls who scored higher than the mean on school readiness. The girls who scored lower than the mean were all having a weekend that was different from weekdays. To get more insight in the daily rhythm of the family, questions were asked about eating patterns and the regularity of bathing and sleeping times. There were no differences between the girls concerning eating patterns. Girls who scored lower than the mean were having slightly more strict rhythm for bathing times. From the girls who scored higher than the mean no one received a bath at a particular hour. The girls who scored lower than the mean received a bath at least three times a week at a particular time. A slightly more strict rhythm for girls who scored higher than the mean was found for sleeping times. Two girls went to sleep at least five times a week at a regular time, the other two girls at least three times a week, while the two girls who scored lower did not go to sleep at a regular time. Differences in the use of strict well-established rules were not found. Overall there did not seem to be a relation between management and the level of school readiness.

# Children attending an ECD centre for more than 2 years

Table 6 shows the correlation between the parenting domains and school readiness domains for the 14 children who attended the ECD centre SUMNAL in Skopje for more than two years and the seven children who attended the ECD centre Life Start in Bitola for more than two years. A higher level of nurturance was related with a higher level of school readiness ( $\tau = .42$ , p < .05), better health and motor development ( $\tau = .57$ , p < .001), better socio-emotional development ( $\tau$  = .49, p < .01), and better approaches to learn ( $\tau$  = .81, p < .05). No correlation was found between nurturance and the other domains of school readiness. Furthermore, less harsh discipline was related with better health and motor development ( $\tau = -$ .48, p < .01), better socio-emotional development ( $\tau = -.55$ , p < .001). No correlation was found between harsh discipline and the other domains of school readiness. More stimulating language and teaching techniques were related with a higher level of school readiness ( $\tau =$ .41, p < .05), better health and motor development ( $\tau = .40, p < .05$ ), better socio-emotional development ( $\tau = .43$ , p < .01), though there was no correlation found with the other domains of school readiness. There was also a significant correlation between the materials mothers provided for their children and the children's school readiness. More books at home was related with a higher the level of school readiness ( $\tau = .47$ , p < .01), better health and motor development ( $\tau = .45$ , p < .01), better socio-emotional development ( $\tau = .47$ , p < .01), and better cognitive development and general knowledge acquisition ( $\tau = .44$ , p < .05). The other domains were not related. More diversity of materials to play with at home was related with a higher level of school readiness ( $\tau = .35$ , p < .05), better health and motor development ( $\tau =$ .48, p < .01), better socio-emotional development ( $\tau = .59$ , p < .001), and better approaches to learning ( $\tau = .36, p < .05$ ). The domains language, communication, and literacy development, and cognitive development and general knowledge acquisition were not significantly related to the materials a child plays with at home.

	Nurturance	Harsh discipline	Stimulating language and teaching techniques	Materials: number of books at home	Materials: kind of things played with at home
School readiness	.42*	31	.41*	.47**	.35*
Health and motor development	.57***	48**	.40*	.45**	.48**
Socio-emotional development	.49**	55***	.43**	.47**	.59***
Language, communication,	.30	24	.32	.27	.24
literacy development					
Cognitive development	.23	06	.32*	.30	.14
Approaches to learning	.37*	23	.28	.44*	.36*

Table 6

*Children attending ECD centre more than 2 years: Correlation (\tau) parenting and school readiness* 

*Note.* \* p < .05. \*\* p < .01. \*\*\* p < .001.

The qualitative data for monitoring do not show differences between the knowledge about the friends of their child, the number of time the mothers brought their child to the ECD centre, and how often they attended a meeting for parents at the ECD centre. However, differences between children who score higher than the mean and children who score lower than the mean were found for how often they left their child alone. Two of the nine children who scored higher than the mean were sometimes left alone in the care of another child that was younger than 10 years old. None of the children were left in the care of another child that is younger than 10 years old. Seven of them went outside on their own. Overall, monitoring seems to be slightly positive related to the level of school readiness.

The qualitative data for management show whether or not the children were raised with a strict rhythm, structure, and rules. All mothers described a regular weekday and weekend. The mothers gave comparable descriptions of the weekdays, though wake up and sleeping times differed. The weekends were different than weekdays for seven children who scored higher than the mean on school readiness. Four children who scored lower than the mean were having a weekend that was similar as weekdays. To get more insight in the daily rhythm of the family questions were asked about eating patterns and the regularity of bathing and sleeping times. There were differences between the children who scored higher than the mean and the children who scored lower than the mean for eating patterns. The children who scored higher than the mean all had to sit down at the table when they were eating. Of the children who scored lower than the mean four children did not have to sit down at the table when they were eating. Differences in the regularity of bathing time were found. The children who scored lower than the mean received a bath at a regular time more often than the children who scored higher than the mean. The regulation of sleeping times did differ as well. Of the children who scored higher than the mean, only one child did not go to bed at a regular time, while six children who scored lower than the mean did not go to bed at a regular time. Differences in the use of strict well-established rules were not found. Overall it seemed that the children who scored higher than the mean received slightly more strict rhythm, structure, and rules, so this seems to be positive for the level of school readiness.

# Reliability

Nine of the questions that were mentioned in the questionnaire for children were used to test the reliability of the answers that the mothers gave. Because of a hearing impairment of one of the children, there are only answers from 27 children available to compare. On the question whether the mother praises her child two out of 27 children (7,41%) answered it differently. One child said that the mother did not praise while the mother said she did, the other child said that the mother praised while the mother said she did not. On the question

whether the mother sings songs to/with her child six children out of 23 children (26,09%; four answers were missing) gave another answer than their mother. Four children said that their mother sang songs, while the mother denied that. Two children said that the mother did not sing songs, while the mother said she did. On the question whether the mother expresses affection to her child by kissing and hugging all children gave the same answer as their mother. On the question whether the mother spanks the child when it is behaving badly 13 children (48,15%) gave a different answer than the mother. Six children said that their mother did not spank them when they were disobedient, while the mother said she did. The other seven children, all living in Bitola, said that their mother spanked them when they were bad, while the mother said she did not do that. In Skopje it seemed more accepted to spank ones child than in Bitola. On the question whether the mother laughs about jokes and makes jokes with her child seven children (25,93%) gave a different answer. Six children said that their mother did not laugh about his/her jokes, while the mother said that she made jokes with her child. One child said the mother laughs about jokes, while the mother said she did not. On the question whether the mother plays with her child five children (18,52%) gave a different answer. Four children said that their mother did not play with them, while the mother said she did. One child said that it played together with the mother, while the mother said she did not. On the question whether the mother makes rules the child has to follow, five children (18,52%) gave a different answer than their mother. Two said they did not have rules to follow, while their mother said that she made rules. Three children said they had to obey rules, while the mother said she did not make rules. On the question whether the mother yells, 15 children (55,56%) gave a different answer than their mother. Thirteen children said that their mother did not yell, while their mother said she did. Two children said their mother yelled while their mother said she did not. One of the educators told that Roma mothers mainly speak in a loud voice. On the question whether the mother reads books to her child, 12 children (44,44%) gave a different answer. Ten children said that their mother did read books. while their mother denied that. Two children said that their mother did not read books, while their mother said she did. Asking about this difference and the fact that most of the mothers were not able to read, the educators told the researcher that children meant that their mother told stories or another member of the family read books to them.

# Conclusion

The Roma population is one of the most disadvantaged communities in Macedonia. Working towards more equality, the school readiness of Roma children and by that their school success, is tried to be increased (UNICEF, 2011a). Research shows that the development and school readiness of young and disadvantaged children can be positively altered by the provision of systematic early childhood education (Ramey & Ramey, 2004; Walls, 2013) and high-quality parenting (Collins et al., 2000; Cook et al., 2012; Hill, 2001; NICHD Early Child Care Research Network, 2002). Even though ECD centres have been set up, and their positive effect on increased school readiness is proven (Walls, 2013), research about the way Roma mothers raise their children is lacking (UNICEF, 2011a). This research examines the correlation between parenting and the school readiness of Roma children. Roma children from two communities with similar living conditions are compared, 14 children from Topaana in Skopje and 14 children from Bair in Bitola. Besides location, a comparison on gender is made, and all children who attended an ECD centre for more than two years are compared.

Significant differences in parenting exist between the mothers from Skopje and Bitola. The mothers in Skopje are having a parenting style that may be described as authoritarian, while the parenting style of mothers in Bitola may be described as authoritative. Nevertheless, there are no significant discrepancies between school readiness of the children. However, if the children who attended an ECD centre for three months are not taken into account, besides

a significant difference in parenting, the school readiness, health and motor development, socio-emotional development, and approaches to learning are significant higher for the children in Bitola. So the hypothesis '*There is no difference in parenting and school readiness between Skopje and Bitola.*' is rejected.

Boys and girls differ significantly on school readiness. Girls score higher on school readiness than boys. In Skopje the girls perform significantly better than boys on four domains of school readiness: health and motor development; language, communication, and literacy development; cognitive development and general knowledge acquisition; and approaches to learning. In Bitola the girls perform significantly better on the domain language, communication, and literacy development. However, the parenting style of the mothers is similar for boys and girls. The hypothesis '*There is no difference in parenting and school readiness between boys and girls.*' is retained for *there is no difference in parenting between boys and girls*, but has been rejected for *there is no difference in school readiness between boys and girls*.

The hypothesis '*There is a relation between parenting and school readiness.*' is more complex to answer, because in some cases the domains of parenting are not significant related with school readiness, while in other cases the domains of parenting are strongly significant related with school readiness. While no significant relations between parenting and school readiness are found in Skopje, strong significant relations between parenting and school readiness are found in Bitola. Comparison of children who attended an ECD centre for more than two years, shows strong correlations between parenting domains and school readiness domains as well. Not all domains of parenting are related with domains of school readiness and vice versa. Nevertheless it can be claimed that the relation between parenting and school readiness is not based on coincidence. The way parents raise their child is related to the level of school readiness. The hypothesis is retained for the domains nurturance, harsh discipline, stimulating language and teaching techniques, and materials. However, no evident relation is found between the parenting domains monitoring and management and school readiness.

Answering the main question 'What is the influence of parenting on the school readiness of Roma boys and girls, and is there a difference between Skopje and Bitola?', the parenting style of mothers is related with the level of school readiness. Children who are raised with a parenting style that can be described as authoritative (more nurturance, less harsh discipline, more stimulating language and teaching techniques, more books at home, and more variation in toys) are having a higher level of school readiness. This finding is in line with previous research that shows that an authoritative parenting style leads to better outcomes for children in multiple development domains (eg. Baumrind, 1971; Baumrind, 1978; Chazan-Cohen et al., 2009; Collins et al., 2000; Darling, 1999). However, the differences between gender, which indicates different needs for boys and girls, and the differences between the places Skopje and Bitola should be kept in mind.

#### Discussion

Some conclusions that have been drawn need further explanation and exploration. First, the "ready families" component that is part of the ECD programme to increase school readiness may have influenced the way in which the mothers raised their child. For this reason the parenting style of the mothers in Skopje may have become more similar, so a significant relation between parenting and school readiness is not found. In Bitola differences in parenting style and a correlation between parenting and school readiness may have been found, because seven mothers were sending their children to an ECD centre since three months, which limited the influence of workshops and information about child development. The similarities in Skopje and the differences in Bitola indicate that the parenting style of mothers can be influenced by parenting programmes. This study found that an authoritative parenting style increases the school readiness of Roma children. Therefore, to improve the school readiness of children a special programme focussing on the way mothers/parents raise their child is recommended. A particular interesting programme that has been showing good results by improving parenting skills of disadvantaged women is designed by Rogier van 't Rood and is called Themis- IDEAL. Module 5 of this programme focuses on parenting skills that previously are being described as parenting skills that are influencing school readiness. Research on Themis shows positive results for marginalized women and their children (Van 't Rood, 2013).

Secondly, the differences that have been found between Skopje and Bitola can be explained by Bronfenbrenner's ecological theory. The expectation on the basis of Bronfenbrenner's ecological theory (2009) was that parentingstyle between the two groups would be similar because of the comparability of the ecological systems in which the Roma families' life. However, the ecological theory can be used as an explanation for differences between Skopje and Bitola as well. Even though the Roma are seen as one group, the group is not homogenous (UNDP, 2005; UNICEF, 2011a). A difference between the Roma in Skopje and Bitola is that the Roma in Skopje speak their own Romani language, while the Roma in Bitola speak Macedonian. The use of Macedonian as first language among the Roma in Bitola may have exposed the habits of the Roma population to more influences by the outside world. This may have enlarged differences between the Roma in Skopje and Bitola.

Third, reason why the level of school readiness did not differ between the two cities may have been the fact that seven children in Bitola started to attend an ECD centre three months before the start of this research, while the other children attended an ECD centre for more than two years. Although notice must be given to the fact that the amount of time spend at an ECD centre positively alters the school readiness of the children, the parenting domains nurturance, less harsh discipline, stimulating language and teaching techniques, and materials are significantly related with the level of school readiness, health and motor development, socio-emotional development, and approaches to learning as well. These findings are in line with previous research that early childhood education (Ramey & Ramey, 2004; Walls, 2013) and high-quality parenting (eg. Collins et al., 2000) positively alter the school readiness of young and disadvantaged children.

Finally, the differences between boys and girls can be explained by different needs. No significant differences exist between the parenting style that the mothers used by raising a boy or girl. Though, different relations between parenting and school readiness are found for gender. This indicates that the parenting style under which boys and girls thrive best differs.

# Limitations and recommendations

One strength of this study is the reliability of the questionnaire for mothers, which seems to be good. The questionnaire is partly monitored by the questionnaire for children, because observation at home is not possible. Nine questions of the questionnaire for children are similar to the questionnaire for mothers. Approximately half of the children gave a different answer than their mother on three questions; the other answers are highly similar. The questions that are answered differently can be labelled as controversial and state whether the mother spanks her child, yells at her child, and reads to her child. Explanations for these differences can be found in social acceptation. Mothers in Skopje admit that they spank their child, while the children deny that their mother spanks them. On the other side, mothers in Bitola deny that they spank their child, while the children say that their mother spanks them. In Skopje it seems to be more accepted to spank ones child than in Bitola. The fact that a lot of children deny that their mother yells at them while the mothers say they do, may be explained by the way Roma mothers communicate with their children. As one of the educators states, most mothers speak loudly, so children may not recognise it as yelling. The findings for harsh discipline are in line with findings of the Macedonia MICS survey (2011). The reason why a lot of children say that their mother reads to them while these mothers deny it (and most of the mothers are not able to read) is because the children intend to say that their mother tells stories or another member of the family reads books to them. The fact that the interviews are done with help from the educators may have positively influenced the reliability as well, because of the trust relation that exists between the mothers and the educators. However, on the other side this may bring the reliability in danger as well, because it may have enlarged the amount of socially desirable answers. To increase the reliability future research should make use of observations in the home situation as well. The validity of the questionnaire for mothers is increased by making use of questionnaires that have been proved to measure what is supposed to be measured (Clerkin, Halperin, Marks, & Policaro, 2007; Strayhorn & Weidman, 1988; Umek et al., 2005 in Jackson, 2011). Furthermore, the validity is high because of the use factor analysis and Cronbach's Alpha.

Another strength of this study is the validity of the ELDS. The validity of the ELDS is already shown by Damkovska et al. (2009). They prove that the ELDS is from high quality, because the items within a domain are measuring a certain standard within that domain. However, the test has limitations as well. The reliability is questionable. The ELDS list relies on the educators' knowledge of the children, which is a common way to measure school readiness (Forget-Dubois et al., 2007). Because of their (almost) daily contact/work with the children the educators are seen as an important source of knowledge about the children's school readiness. The reliability is questionable, because each ELDS list is filled out by only one educator, which may have caused subjectively loaded lists. To increase the reliability it is recommended that the educators fill out the ELDS lists at least two times a year instead of once a year which is the case for this research.

An important limitation that should be noted is the way in which the link between parenting and school readiness is measured. The relation between these two factors in this study is based upon correlation research. This kind of research is helpful in finding relationships between variables. However, definitive cause-and-effect relationships cannot be established in this way, which make the conclusions weaker. Future research is needed to prove or find out whether or not cause-and-effect relationships exist between parenting and school readiness.

Another limitation of this study is the small sample size, which makes it impossible to generalize these finding to another context. To make generalisation of the results possible it is recommended to make use of a bigger sample size by future research. Furthermore, the results show differences in parenting between the cities. Present results are not generalizable to other Roma communities in the country. Besides, Roma who bring their children to an ECD centre are relatively rare. Only a relatively small group of Roma parents see the importance of education. They seem to have different values than other Roma parents. For that reason it is advised to do research among more Roma communities and among Roma who do not attend an ECD centre.

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#### Appendix I: Interview staff members ECD centres

Thank you very much for your cooperation. My name is Marloes and I will ask you questions about parenting. I am doing research about the effects of parenting on the developmental skills and school readiness of Romani children and whether there is a difference in parenting between gender, and the places Skopje and Bitola. With these questions I hope I will get a deeper insight in the way you experience the parenting skills of parents whose children attend the ECD centre. (Name interpreter) will be the interpreter during the whole conversation. The interview will take no longer than 30 minutes. If you do not mind, the interview will be recorded. I will only use the tape to listen some parts of the conversation back. All the information will be processed anonymous. Have you got any questions before we start? Then we will start if you're ready.

- 1. How would you briefly describe the ECD centre and its main goals?
- Do you think the ECD centre contributes to parenting?
   If yes, what is the contribution of the ECD centre to parenting?
- 3. How do you reach parents to let their children attend the ECD centre?
- 4. How do you think Romani parents whose children do not attend an ECD centre can be engaged?
- 5. How would you describe the role of the parents at the ECD centre?
- 6. Do you try to make the parents involved in what their child does at the ECD centre? Why or why not?
- 7. What kind of activities are being organised for parents and with which purpose?
- 8. What do you think of the activities that are being organised for parents?
- 9. Is there a difference in parents engagement and attitudes at the start and where they are standing right now?

If yes, what are the differences? How do you think these differences have been made? If not, how do you think differences could be made?

10. Do you have any suggestions for improvements that can be made? Explain..

Is there anything else you would like to add to this interview? Thank you very much for answering these questions. I will keep you posted about the results of my research.

## Appendix II: ELDS instrument

Name and surname of the child: Age: Date of assessment:

#### **1.** Health and motor development

4-6 years

Indicator	First step	Progressing	Reaching goal
1. Standard – Maintain balance			
1.1. Running stable - no falling			
1.2. Jumping over obstacles			
1.3. Jumping backwards with one foot			
2. Standard – Control of body parts			
2.1. Climbing rope			
2.2. Stretching the body			
2.3. Using gymnastic equipment			
3. Standard – Coordination			
3.1. Rotates around the axis of the body			
3.2. Makes complex movements, for example dancing			
4. Standard – barriers which are moving and immobile			
4.1. Overcomes higher barriers			
4.2. Bypasses immovable objects while running fast			
5. Control hands and fingers			
5.1. Holding scissors and cutting paper based on a circular line			
5.2. Able to displace dense contents of a tube (plasticine, glue, toothpaste)			
5.3. Hand preference established			
6. Standard- manages general purpose objects			
6.1. Holding cutlery correctly knife, fork			
6.2. Ties his own laces			
6.3. Uses liquid with spoon or glass			
7. Standard - Personal care and hygiene			
7.1. Placing his hand on his mouth when coughing			
7.2. Got independent bathroom habits			
8. Standard – Recognizes harmful and dangerous situations			
8.1. Looks left and right when crossing the street			
8.2. Alerts a friend if he/she is in danger to fall, to slip)			
9. Standard – Regulation of movement using senses			
9.1 Makes creative structures with various materials			
9.2 Accurately draws given figures			

## 2. Socio- emotional development

4-6 years

	Indicator	First step	Progressing	Reaching goa
1.	Standard – Distinguishes familiar and			
	unfamiliar adults			
	Recognizes celebrities on photos			
1.2.	Communicates with familiar faces in his/her			
	surrounding			
1.3.	Asks for help from familiar persons when facing			
	with a problem			
	Asks questions about an unfamiliar person			
1.5.	Shares secrets with a close person			
2.	Standard – Can develop social skills in interaction with other children			
2.1.	Shows loyalty to friends			
2.2.	Chooses to play with a new friend			
	Contributes in group games			
	Has friends at several places			
3.	Can develop social skills in interaction with			
5.	adults			
3.1.	He/she greets a familiar person			
	Seeks for help from adults			
<b>4.</b>	Can notice and respect similarities and			
4.	differences between people			
4.1.	Able to describe his/her own appearance and to			
	compare it with the appearance of other people			
4.2.	Recognizes the different social roles			
	Asks questions about other children			
5.	Standard – Develops self-awareness			
	Shares information about him/herself with other			
5.1.	children			
5.2.	Is aware of his/her own cultural identity			
6.	Standard – Recognizes and adequately			
	expresses own emotions			
6.1.	Gives reasons and talks about his/her own			
	emotions			
6.2.	Expresses emotions through play			
7.	Standard – Is proud of his/her own			
	achievements and believes in his/her abilities			
7.1.	Presents his/her own ideas and opinions			
7.2.	Presents the completed task to an adult			
7.3.	Is fully committed to assigned tasks			
8.	Standard – Can control his/her own feelings			
	Expresses anger and sadness in an appropriate			
	manner, with a great deal of control			
8.2.	Calms down own negative emotions and instant			
	impulses			
8.3.	Accepts going to SUMNAL			

## 3. Language, communication and literacy development

4-6 years

	Indicator	First step	Progressing	Reaching goa
1.	Standard – Can listen and understand verbal			
1 1	language           Gets involved in conversation, understands what			
1.1.	he/she hears and responds appropriately			
1.2.	Knows the importance of a few special words			
	Can easily repeat a story			
2.	Can speak and communicate			
	Expresses his/her own ideas in different ways			
	Discusses with peers			
	Tells his/her own experience			
	Uses different intonation			
	Recites poem by changing the intonation of the			
	voice			
3.	Standard – Can enrich his/her own			
	vocabulary and speech and to show progress in speaking correctly			
3.1.	Recognizes words that are different from his/her			
	mother tongue			
3.2.	Knows the opposite meaning of a given word			
3.3.	Participates in vocal games			
4.	Standard – Shows interest in printed materials			
	Reviews a picture book during a longer period of time			
4.2.	Can describe an event according to certain			
1.0	pictures which he/she sees for the first time			
	Uses the book to get some information			
4.4.	Knows that the book has a title, author and illustrations			
5.	Recognizes written symbols and letters			
	Connects the sound with a certain letter			
	Appoints letters in written text			
	Recognizes his/her name written on paper			
5.4.	Appoints 2-3 letters, connecting them in series			
6.	Standard – Can engage in activities related to writing			
6.1.	Writes or draws different shapes with many moves of the hand			
	Writes a certain letter by copying			
	Writes his/her own name			
7.	Standard – can present his ideas through written symbols and letters			
	Uses squiggles and drawings that look like letters to write a message			
7.2.	Requires an adult to write something about his/hers idea			

# **4.** Cognitive development and general knowledge acquisition 4-6 years

	Indicator	First step	Progressing	Reaching goa
1.	Standard – Demonstrates the ability to			
	research and discover			
1.1.	Dismantles and reassembles various objects/toys			
	Observes and discusses the changes he/she			
	notices			
1.3.	Foresees what will happen based on observations			
	and research			
1.4.	Builds bricks one on another to see at which			
	point they will fall			
2.	Demonstrates knowledge of quantity,			
	numbers and counting			
	Can name a number in a given text			
2.2.	Indicates which number precedes and which			
	number follows after 5			
2.3.	Recognizes numbers form 1-10			
2.4.	Can tell the number of the street where he/she			
	lives			
2.5.	Connecting the quantity with the symbol number			
3.	Demonstrates the ability of classification and			
	serialization			
3.1.	Describes the daily activities according to the			
	time of occurrence			
3.2.	Sorts buttons according to the number of holes			
3.3.	Draws patterns in a given position			
	Sorts items in series, according to more			
5.1.	characteristics			
4.	Obtains information about the surrounding			
	through observation and manipulation			
4.1.	Uses standard objects to research the			
	surrounding			
4.2.	Experiments with objects and materials from the			
	surrounding			
4.3.	Identifies, describes and compares objects and			
	phenomena and their meaning			
4.4.	Searches and collects sensory information from			
	the surrounding using his/her senses, observation			
	and conversation			
	Recognizes visual displays			
5.				
<b>5</b> 1	characteristics of plants and animals			
5.1.	Appoints and recognizes the benefits of certain			
E 0	plants and animals			
	Shows concern and interest in plants and animals			
5.3.	Appoints a variety of environments in which			
E 1	animals exist			
5.4.	Recognizes hazards when in direct contact with			
6	some animals or plants Standard – Observes and describes the			
6.	standard – Observes and describes the characteristics of inanimate nature			
61				
	Appoints certain geographical terms			
6.2.	Is able to describe the characteristics of the four			
63	seasons Know about the existence of time related links			
D 1	Know about the existence of time related links			1

		1
	Names characteristics of various materials	
6.5.	Shows basic knowledge of 'recognizing' weather changes	
7.	Standard – Recognizes people as social being	
7.1.	Knows and lists several functions of human organs	
7.2.	Lists similarities and differences between people, animals and plants	
7.3.	Dramatizes/imitates certain professions	
8.	Standard – Demonstrates the ability to distinguish different sounds/voices	
8.1.	Moves and follows the rhythm of the music	
8.2.	Wants to listen to his/her favourite music	
8.3.	Recognizes the words of his/her favourite song and is singing along during other activity	
9.	Standard – Shows interest in participating in musical activities	
9.1.	Demonstrates the type of music he/she wants to listen	
9.2.	Able to sing part or a whole song	
9.3.	Singing in the right position	
	Participates in a variety of musical events	
9.5.	Uses a variety of musical instruments, non- traditional instruments and other items	
10.	Standard – Shows interest in participating in various forms of visual creativity	
	. Can independently draw familiar objects and ferent models	
10.2	. Combines different sizes of brushes while drawing and painting with watercolours	
10.3	. Decorates various objects by drawing	
10.4	. Makes various items	

# 5. Approaches to learning

4-6 years

	Indicator	First step	Progressing	Reaching goal
1.	Standard – Can learn new things and gain new experiences			
1.1.	Develops a personal interest in certain things			
	Shows interest and wants to know more about the events and stories			
1.3.	Shows interest in discussions related to some new experiences and developments			
2.	Standard – May take initiative			
2.1.	Individually makes selection			
2.2.	Asks a friends to join the game			
2.3.	Develops a plan for his/her own activity and participates in it			
2.4.	For the purpose of self-interest involved in a particular activity			
3.	Standard – Shows persistence in the undertaken activities			
3.1.	Endeavours to complete the activity successfully			
3.2.	Accepts challenges and persist in the activity			
4.	Standard – Using creativity in everyday activities			
4.1.	Plays symbolic games			
4.2.	Is capable of changing well known stories			
5.	Standard – can learn in different ways from their own experiences			
5.1.	Uses a variety of methods			
5.2.	Is planning activities and creates goals			

Appendix III: Questionnaire for mothers

	ons about the re	sponden	<u>t</u>
1.1 H0	w old are you?		
1 2 Wł	nat is your marita	 al status?	
	Single	ii status.	
,	Married (consen	(leur	
,	Married (legal/fo	,	
		n mai)	
,	Divorced		
,	Widowed	4	
	nat is your educa	tional lev	/el/
,	Illiterate		
	Primary education		
,	Primary educatio	· 1	
	Secondary educa		- · · ·
· · ·	Secondary educa		<b>1</b> /
,	Higher education		<b>1</b>
,	Higher education	· 1	eted)
	you have a job?		
	Yes		
2)			
1.5 Wł	nat is your main	source of	income?
1)	Regular wage jo	b	
2)	Occasional/ seas	onal wag	e job
3)	Collecting garba	ge/ sellin	g old goods
4)	Begging		
5)	Social help/ uner	nployme	nt benefits
6)	Other (specify)		
1.6 Ho	w many childrer	n do you l	have?
1.7 Wł			er of the children?
	Gender: M/F	Age	
1			-
1.			
2.			-
			-
3.			
4.			-
4.			
5.			-
			_
6.			
1000		a ia a dif	forence between rejeing house and sinle?
	-		ference between raising boys and girls?
1)	Y es, because		
••••	NT 1		
2)	No, because		
	•		
			lifferently than your spouse does?
1)	Yes, because		

2) No, because.

#### 2. Questions about early childhood education

(The next questions are only for parents whose child attend an ECD centre.)

Please circle the number which best corresponds to your level of agreement with the following statements using the following scale; 1 =Never 2 =Once in a while 3 =About half of the time 4 =Often 5 =Always 2.3 I ask my child about his/her day at the ECD centre. 1 2 3 4 5 2.4 I help my child with work from the ECD centre. 2 3 4 5 2.5 I attend meetings for parents at my child's ECD centre. 1 2 3 4 5 2.6 I am aware of problems or concerns about my child in the ECD centre. 1 2 3 4 5 2.7 I bring and pick up my child from the ECD centre. 3 4 1 2 5 (If not always specify how the child brought and picked up from the ECD centre.) ..... 2.8 How does the ECD centre contribute to the way you raise your child(ren)? .....

#### 3. <u>Questions about parenting practice/parenting style: Nurturance and Discipline</u>

Rate for each item how often you exhibit this behaviour with your child.  $1 = Never \ 2 = Once in a while \ 3 = About half of the time \ 4 = Often \ 5 = Always$ 

3.1 I give praise when my child is good.

- 3.2 I spank or slap my child when my child is disobedient.
  - 1 2 3 4 5
- 3.3 I joke and play with my child.
  - 1 2 3 4 5
- 3.4 I show sympathy when my child is hurt or frustrated. 1 2 3 4 5
- 3.5 I punish by taking privileges away from my child with little if any explanation. 1 2 3 4 5

3.6	-		standing when my child is upset.
27	1 2	3 4	5
3.7	-		hild misbehaves.
2.0	1 2	3 4	5
3.8	-	ild my expecta	ations regarding behaviour before the child engages in an
	activity.	2	-
2.0	1 2	3 4	5
3.9			ike my child improve.
2 10	1 2	3 4	5
3.10	-	ence with my	
2 1 1	1 2	3 4	5
3.11			ild off somewhere alone with little if any explanation.
0.10	1 2	3 4	5
3.12	-	-	ild's feelings or needs.
0.10	1 2	3 4	5
3.13			eciate what the child tries or accomplishes.
	1 2	3 4	5
3.14	-	anger toward	-
	1 2	3 4	5
3.15		• •	ounishment more often than actually giving it.
2.1.6	1 2	3 4	5
3.16			gging, kissing, and holding my child.
0.17	1 2	3 4	5
3.17		child's misbe	
2.10	1 2	3 4	5
3.18			d rules for my child.
<b>a</b> 10	1 2	3 4	5
3.19		-	nt with little or no justification.
	1 2	3 4	5
3.20			es of the child's behaviour.
	1 2	3 4	5
3.21	•	-	g else to do when he/she is misbehaving.
	1 2	3 4	5
3.22	I ask my spo	-	n our child when he/she misbehaves.
	1 2	3 4	5
	<u>estions abou</u>		
4.1	l How many	children's boo	oks or picture books do you have for your child?
		ted to learn at	bout the things that your child plays with when he/she is at
	home.		
	Does he/she	1 V	
		•	lolls, cars, or other toys made at home)?
	· •	-	anufactured toys?
	3) Househol shells, or	•	e bowls or pots) or objects found outside (like sticks, rocks,
		,	play with, specify with what kind of objects a child plays (and
		-	t
			·

#### 5. Questions about language and teaching

HOME LITERACY ENVIRONMENT OUESTIONNAIRE Please circle the number which best corresponds to your level of agreement with the following statements using the following scale. 1 =Never 2 =Once in a while 3 =About half of the time 4 =Often 5 =Always 5.1 I complete and expand my child's speech (e.g., "The boy is crying." with "Yes, the boy is crying because he hurt himself.") 5.2 When I talk to my child, I use grammatically correct sentences. Δ 5.3 When talking to my child, I use long sentences (e.g. complete sentences and/or compound sentences). 5.4 When talking to my child, I try to speak in a manner similar to his/hers (e.g. I call objects as he/she does, I use child-like speech). 5.5 I answer my child's questions and offer explanations, even if he/she repeats his/her question many times. 5.6 I talk to my child about how he/she has spent his/her day. 5.7 I talk to my child about what he/she would like to do. 5.8 I count objects with my child. 5.9 I name and describe different objects in the house/street/store to or with my child. 5.10I play with my child at least half an hour a day. Δ  $\rightarrow$  Specify what kind of play..... 5.11I encourage my child to explore new toys on his/her own. 5.12I sing songs to or/and with my child. 5.13I encourage my child to learn to read a few words (e.g. his/her name). 5.14I read books to my child. (If 1, continue with 5)  $\rightarrow$  Specify how often..... 5.15I allow my child to interrupt me and ask questions when I'm reading to him/her. 5.16I allow my child to create his/her own stories while I'm reading to him/her. 5.17 When reading to my child, I talk to him/her about the content of the book. Λ 

#### 6. **Questions about monitoring**

7. <u>Ou</u>	<ul> <li>3) Left alone at home and had to take</li> <li>5.2 I know the friends of my child 1 = Yes 2 = Most 3 = No</li> <li>Duestions about Management</li> <li>7.1 Can you give a description of how you (For example, wake up time, meals, p)</li> </ul>	
7. <u>Ou</u>	<ul> <li>5.2 I know the friends of my child 1 = Yes 2 = Most 3 = No</li> <li>Duestions about Management 7.1 Can you give a description of how you (For example, wake up time, meals, point)</li> </ul>	ur day and your child's day look like? lay, visiting family/friends, work, bedtime)
7. <u>Ou</u>	<ul> <li>1 = Yes 2 = Most 3 = No</li> <li>Duestions about Management</li> <li>7.1 Can you give a description of how you (For example, wake up time, meals, particular description)</li> </ul>	lay, visiting family/friends, work, bedtime)
	7.1 Can you give a description of how yo (For example, wake up time, meals, p	lay, visiting family/friends, work, bedtime)
7.2	(Monday/Tuesday/Wednesday/Thursd	y/Sunday) differ from days during the week day/Friday)? <i>If yes, specify</i> .
7.	7.3 How many meals eats the family toge	
7.4	7.4 Do you have bedtimes routines with y praying?	our child, for example reading, singing, or
follow $1 = Nc$	wing statements using the following sc	ice a month $3 = At$ least once a week
7.5	7.5 What fraction of days does your child afternoon, and one in the evening? 1 2 3 4 5	get three meals, one in the morning, one in the
7.0	7.6 What fraction of days does your child	eat all of the following: some meat (or other etables, some milk products, and some bread or
7.2		receive a bath at a particular hour known as
-		
7.8	7.8 What fraction of the days in a week do $1$ 2 3 4 5	oes your child go to bed on a regular time?

Is there anything else you would like to add to this interview? Thank you very much for answering these questions.

#### Appendix IV: Questionnaire for children

First example questions to comfort the child.

- I like music.
  - I do not like music.
- My mom makes drawings with me.
   My mom does not make drawings with me.
- 1. I go to bed whenever I want.

I go to bed when my mom tells me to go to bed.

- My mom praises me when I do something good.
   My mom does not praise me when I do something good.
- My mom does not make me cry. My mom makes me cry.
- My mom sings song to/with me.
   My mom does not sing song to/with me.
- I do not have to wash my hands before I eat.
   I have to wash my hands before I eat.
- My mom hugs and kisses me a lot.
   My mom does not hug and kiss me a lot.
- My mom spanks me when I am bad.
   My mom does not spank me when I am bad.
- My mom laughs at my jokes.
   My mom does not laugh at my jokes.
- My mom gets mad at me a little.
   My mom gets mad at me a lot.
- 10. My mom plays with me.

My mom does not play with me.

11. My mom makes rules I have to keep me on.

My mom does not make rules I have to keep me on.

- 12. At dinnertime my mom does not make me sit at the table. At dinnertime my mom makes me sit at the table.
- 13. My mom yells at me a lot.

My mom yells at me a little.

14. I go outside on my own.

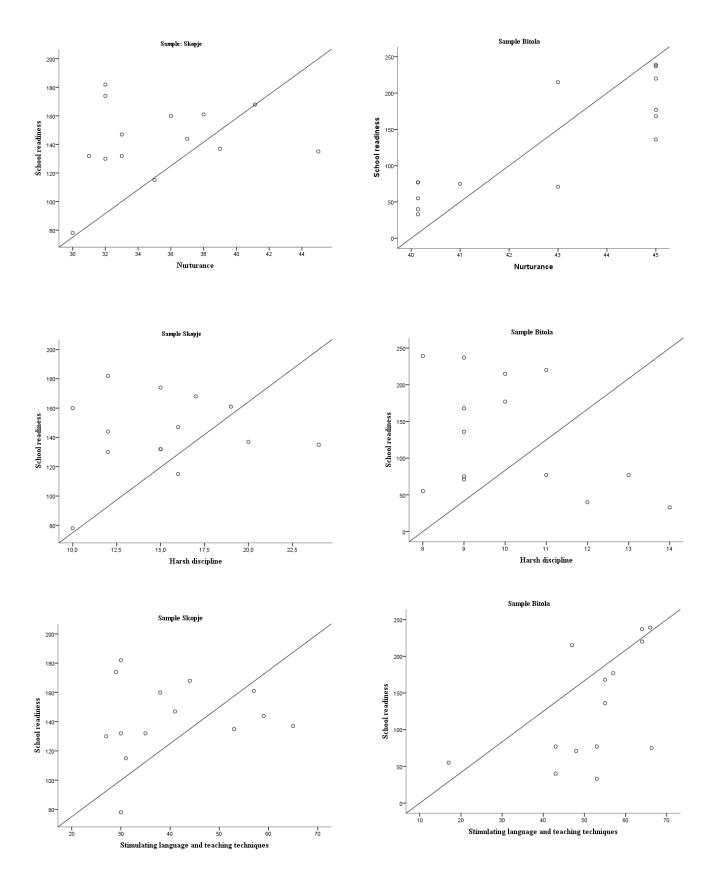
I do not go outside on my own.

15. My mom does not read to me

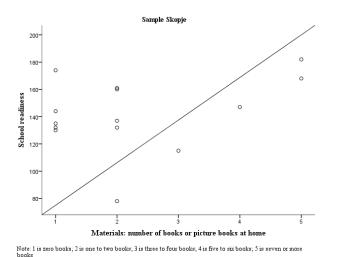
My mom reads to me.

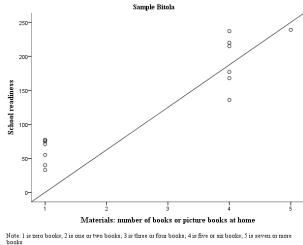
- 16. I do not have to clean up my toys.I have to clean up my toys.
- With what kind of toys do you play?

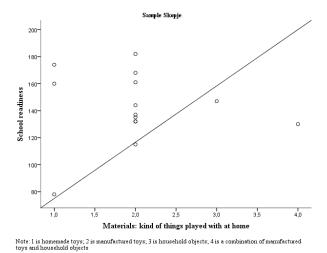
.....

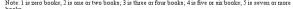


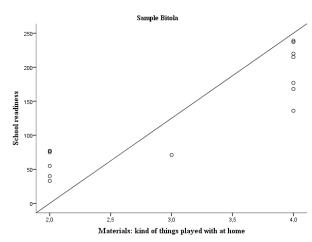
## Appendix V: Scatterplots of the distribution of parenting











Note: 1 is homemade toys; 2 is manufactured toys; 3 is household objects; 4 is a combination of manufactured toys and household objects