Parenting Practices and Preschoolers' Cognitive Skills in Turkish Immigrant and German Families

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STATEMENT OF AUTHORSHIP

This thesis contains no material which has been accepted for any award or other degree or diploma in any university or other institution. It is affirmed by the candidate that, to the best of her knowledge, the thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

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ABSTRACT

Today, approximately 2 million Turkish citizens live in Germany, and similar to many minority populations, Turkish immigrant children are academically less successful at school when compared to their German counterparts. School problems that Turkish immigrant children have at early ages are also precursors of some problems they face in adolescence (e.g., conduct disorders) and adulthood (e.g., adjustment problems, unemployment). Nevertheless, no studies have developmentally investigated the factors that influence school performance of Turkish immigrant children in Germany. In this study, German and Turkish immigrant samples were compared on children's early cognitive skills, mothers' parenting behaviors and the quality of home environment, and parenting variables were investigated as possible predictors of children's cognitive development. The participants in the study were 65 German and 52 Turkish preschool children, and their mothers who were matched in terms of education level (i.e., 10-to-12 years of schooling). Children were mainly recruited from childcare centers serving low-SES communities. Four different cognitive skills (memory, strategies, categorization and body-related vocabulary skills) that are thought to be related to early school performance were measured by a test. The test provided scores for the four domains individually and also gave a composite score indicating the child's overall cognitive performance. Parenting variables were measured by a self-report scale and time diary. MANOVAs and structural equation modeling analyses, respectively, revealed that cognitive scores of German children were significantly higher than those of Turkish immigrant children and predictors of these skills were different for the two groups. Provision of literacy

experiences at home and children's solitary play significantly predicted cognitive performance of German children. For the Turkish sample, high levels of maternal responsivity and home literacy environment were significant predictors of children's cognitive scores. However, a comparison of parenting variables revealed that Turkish mothers displayed responsivity and home literacy experiences considerably less than German mothers. Taken together, these findings implied that Turkish immigrant children are disadvantaged in terms of early cognitive development and this is partly due to the fact that they receive low environmental stimulation. The results point out the importance of focusing on the home environment and parenting practices in developing programs that aim to improve Turkish immigrant children's early cognitive skills. Such programs may also facilitate the school success of these children in the long run.

Keywords: Parenting, Cognitive Skills, Turkish Immigrants

ÖZET

Günümüzde, yaklaşık 2 milyon kadar Türk vatandaşı Almanya'da yaşamaktadır. Diğer birçok azınlık gruba benzer olarak, Türk göçmen çocuklar da Alman akranlarına oranla akademik açıdan daha başarısızdır. Türk göçmen çocukların erken yaşlardaki bu okul sorunları, ergenlikte (örn: davranış bozuklukları) ve yetişkinlik döneminde karşılaşılan bazı önemli sorunların da (örn: uyum sorunları, işsizlik) tetikleyicisidir. Bu rağmen, araştırmacılar, Almanya'daki Türk göçmen çocukların okul performansını etkileyen faktörleri gelişimsel olarak incelememiştir. Bu çalışmada, Alman ve Türk göçmen gruplar, çocukların bilişsel becerilerinin düzeyi, annelerin ebeveynlik davranışları ve ev ortamının nitelikleri açısından karşılaştırılmış, ve ebeveynlik değişkenlerinin çocukların bilişsel becerilerini ne düzeyde yordadığı araştırılmıştır. Çalışmanın katılımcıları 65 Alman ve 52 Türk göçmen anaokulu çocuğu ve onların eğitim düzeyi (toplam 10-12 yıl okullaşma) açısından eşleştirilmiş anneleridir. Çocuklara, düşük sosyoekonomik düzeydeki çevrelere hizmet veren anaokulları aracılığıyla ulaşılmıştır. Erken dönem okul performansı ile ilişkili olduğu düşünülen dört farklı bilişsel beceri (hafıza, stratejiler, kategorileştirme ve vücut ile bağlantılı kelime bilgisi) bir gelişim testi ile ölçülmüştür. Bu test, her bir bilişsel alan için ayrı bir puan vermekte ve çocuğun test genelindeki bilişsel performansını ifade eden bir de toplam puan sunmaktadır. Ebeveynlik değişkenleri, annelere doldurtulan bir ölçek ve günlük ile ölçülmüştür. MANOVA ve yapısal eşitlik modeli analizleri, sırasıyla, Alman çocukların Türk göçmen çocuklara oranla bilişsel işlerde daha iyi performans gösterdiğini ve bilişsel performansı yordayan değişkenlerin iki grup için farklılaştığını göstermiştir. Alman çocukların bilişsel performansını anlamlı şekilde yordayan

değişkenler, çocuğa evde sağlanan okuma-yazma deneyimi ile çocukların yalnız oyun oynama süresidir. Türk örneklem için ise, yüksek düzeydeki anne duyarlılığı ve evdeki okuma-yazma ortamı çocukların bilişsel performansını anlamlı şekilde yordamıştır. Oysa ki, gruplar ebeveynlik davranışları açısından karşılaştırıldığında, Türk annelerin Alman annelere göre daha düşük duyarlılık gösterdiği ve çocuklarına daha az okuma-yazma deneyimi sağladığı bulunmuştur. Tüm bu bulgular, Türk göçmen çocukların erken dönem bilişsel becerilerin gelişimi açısından dezavantajlı olduğunu ve bu durumun, kısmen, alınan çevresel uyarımın azlığından kaynaklandığını göstermektedir. Bulgular, Türk göçmen çocukların bilişsel becerilerini arttırmayı hedefleyen programların ev ortamı ve ebeveynlik davranışları üzerine yoğunlaşması gerektiğine işaret etmektedir. Böyle programlar uzun vadede Türk göçmen çocukların okul başarısını da artırabilmektedir.

Anahtar Sözcükler: Ebeveynlik Davranışları, Bilişsel Beceriler, Türk Göçmenler

DEDICATION

“To my dear mother”

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I believe that we, as humans, are constantly creating our own reality. That is to say, everything we encountered in life is in fact reflecting ourselves and in this way, teaching us who we really are. During this thesis-writing period, I found myself in many different situations, I met with many new people and I had chance to become closer to many others whom I knew earlier. While these situations and persons had sometimes left me with loving, enjoyable and peaceful feelings, they sometimes challenged, tired and even upset me. I am now looking backward and seeing that all these experiences were perfect 'coincidences' which reminded me of my fears and loving sides, and everyone I encountered throughout the way were miraculous beings who were acting as a mirror for me. So, I would like to give my gratitude to everyone who played with me in this amazing scenario.

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INTRODUCTION

1.1 General

Recently, there has been a growing recognition that successful participation in educational institutions is a key factor for integration of Turkish immigrants in Germany. Turkish immigrants constitute about a quarter of children who attend preschool or elementary school in many German cities. Nevertheless immigrant children are usually academically less successful compared to the overall population (Leyendecker, Çıtlak, Schölmerich, & Yağmurlu, 2004). In this respect, exploring the causes of low school performance of Turkish immigrant children is of special importance. We need to elucidate the factors which lead to these outcomes, specifically those that are important for cognitive and academic skills in order to prevent school problems that immigrant children faced.

1.2 Scope and Purpose of Research

It is no doubt that early cognitive development is one of the most important predictors of later school achievement. Research studies that examine the contexts that are conducive to development of cognitive skills attribute an influential role to children's early proximal environment, in particular to parenting. It has been widely reported that

early maternal responsivity especially in terms of verbal stimulation, involvement with the child, positive parenting practices such as use of praise, and literacy environment at home predict young school-age children's cognitive development (Estrada, William, Roberts, & Holloway, 1987; Hart & Risley, 1992; Hoff, 2003; Landry & Smith, 2001; Laosa, 1982, 1984; Pierce & Garrett, 1996; Rogoff, 2003; Sénécal & LeFevre, 2002; Slobin, 1972; Snow, 1991, 1993; Tamis-LeMonda, Bornstein, Baumwell, & Damast, 1996; Whitehurst et al., 1994).

On the other hand, it is known that culture shapes systematic parenting practices. While there are cross-cultural universals (Segall, Dasen, Berry, & Poortinga, 1999), several studies reveal culture-related variances in parenting behaviors (Bornstein, Tal, & Tamis Le-Monda, 1991; Pomerleau, Malcuit, & Sabatier, 1991). However, the effect of culture on parenting usually diminishes and sometimes disappears when socioeconomic status of families is taken into account (Bornstein et al., 1991; Fogel, Toda, & Kawai, 1989). In this sense, it would be valuable to investigate cross-cultural differences with groups that are comparable in terms of socioeconomic background. This would expand our understanding of the role of culture and socioeconomic status (SES) in the relations between parenting and cognitive development in young children.

Although there are a few studies which comparatively examined parenting predictors of cognitive development in Turkish immigrant and Dutch children (Leseman & Boom, 1999; Willemsen & Vijver, 1997), to my knowledge, there is no such study that has been conducted with Turkish immigrants in Germany. Also, most of the previous findings (Leseman & Boom, 1999; Tuijl & Leseman, 2004) do not provide information on

aspects of cognitive development that specifically contribute to school achievement (e.g., attention, memory, executive strategies). In accordance, the primary aim of the present study was to investigate similarities and differences in cognitive skills of Turkish immigrant children and German children living in Germany. Another goal of the present study was to explore similarities and differences in parenting predictors of cognitive skills of children in these two cultural groups. Examining these relationships was seen as especially important to gain an insight into the processes influencing immigrant children's school performance.

In this thesis, the following chapter reviews theoretical approaches to cognitive development, the literature on parenting and sociocultural context, and summarize empirical studies on their relationships. In chapter 3 (The present Study), the aims and hypotheses of the present study are presented in the light of previous findings reviewed. In Chapter 4 (Method), characteristics of participants in the study and measures used to assess the predictor and outcome variables are given. Chapter 5 (Results) provides a detailed report of the results of statistical analyses. More peripheral information concerning the measures and findings is presented in Appendices. The final chapter (Discussion) interprets the findings of the present study and discusses them in relation to the literature. It also discusses limitations of the study and suggests directions for future research.

Chapter 2

LITERATURE REVIEW

2.1 Cognitive Development

Cognitive development refers to "how the processes or faculties by which knowledge is acquired and manipulated change over time." (Bjorklund, 1989, p.3). It is acknowledged that little in the way to complex cognitive processes is built into our brains. Rather, our ability for complex thought develops gradually over childhood (Bjorklund, 1989). In this sense, it is essential for researchers to understand the course and causes of cognitive development.

We see that the field that examines the course of cognitive development was first dominated by a biological-genetic-maturational perspective. Foundations of this approach to cognitive development come from the studies of Gesell (1880-1961). Within this perspective, it is assumed that development is characteristic of human species which has its basis in biology. In this respect, the course of cognitive development is relatively predictable across all individuals. This view is well represented in the Central Processor Model of Intelligence which constitutes the basis of Jean Piaget's (1967) well-known and widely accepted theory of cognitive development. According to this model, intelligence is a central process that shows consistency, generalizibility and transfer over different conditions.

In line with this view, Piaget (1967) examined children's intellectual development as a way of how mental representations change over time and proposed that children's thinking transformed in stages as children revise their concepts of physical phenomena and mathematical ideas. According to Piaget (1967), there are sequential stages in cognitive development and children's understanding of the world across different situations is limited to the stage they are in at the time. Another important assumption of this theory is that these stages represent universal processes, meaning that all individuals in the world go through these same stages in the same order and no important cultural variation is expected in this sequence. Although strict characterizations, unevenness and universality of Piagetian stages were challenged later on by several studies (Cole, Sharp, & Lave, 1976; Dasen, 1977; Rogoff, 1981), it is worth to mention these stages here briefly before elaborating on the critics because Piaget's theory still constitutes the basis of many cognitive studies and tasks used today.

Piaget (1967) describes four stages of cognitive development from birth to adulthood. The first stage is called *the sensorimotor period* and lasts from birth to two years of age. At this stage, infants' achievements consist largely of coordinating their sensory perceptions and simple motor behaviors. As they move through the six substages of this period (reflex schemas, primary circular reactions, secondary circular reactions, coordination of secondary circular reactions, tertiary circular reactions and beginning of symbolic representation), infants come to recognize the existence of a world outside of themselves and begin to interact with it in deliberate ways. The second stage which is from two to six years of age is called *the pre-operational period.* At this stage, young

children can represent reality to themselves through the use of symbols, including mental images, words, and gestures. Objects and events do no longer have to be present to be thought about, but children often fail to distinguish their point of view from that of other person, become easily captured by surface appearances, and are often confused about causal relations. The third stage is called *the concrete operational period* and it takes place between the age of six and twelve. This stage is described as the time when children become more capable of mental operations, internalized actions that fit into logical system. Within this stage, operational thinking allows children to mentally combine, separate, order, and transform objects and actions. The last Piagetian stage of cognitive development is *the formal operational period* which is achieved between twelve and nineteen years of age. In this stage, the developing adolescent acquires the ability to think systematically about all logical relations within a problem and begins to display a keen interest in abstract ideas (Cole & Cole, 1996).

As mentioned before, the Piagetian theory constitutes the basis of the cognitive development literature even today and provides an in-depth understanding of children's development of cognitive skills. However, his theory which represents the Central Process Model was challenged by findings that people coming from different cultural communities perform differently on Piagetian tasks. For example, while European and U.S. children were found to reach the concrete operational stage at about age seven (Goodnow, 1962 as cited in Rogoff, 2003; Kiminyo, 1977), people from non-European/American communities displayed concrete operational thinking at an age much later than seven (Greenfield, 1966; Kelly, 1977; Stevenson, Parker, Wilkinson, Bonnevaux, & Gonzalez, 1978). In addition,

researchers have found that schooling has a great impact on cognitive test performance (Cole et al., 1976; Greenfield, 1974; Lave, 1977). It is that, people from traditional societies who did not have school experience were found to be incapable of reaching the formal operational stage (Ashton, 1975; Goodnow, 1962 as cited in Rogoff, 2003). However, these people performed well enough when the tasks were structured with familiar concepts such as kin relationships (Greenfield & Childs, 1977). These findings clearly showed that familiarity with the concepts is necessary in order to perform well in the Piagetian cognitive tasks. What is more, many cross-cultural studies showed that children who performed poorly on cognitive tasks in test situations showed impressive thinking in their everyday lives (Rogoff & Lave, 1984; Serpell, 1977). Therefore, Piaget's assumptions that development necessarily follows a certain sequence of stages and the developmental stages manifest themselves similarly in different situations (tasks) have been refuted.

However, these findings are in line with the sociocultural perspective which claims that cognitive processes do not operate irrespective of circumstances. According to the sociocultural approach (e.g., Context Specific Learning Model), cognition represents adaptation to specific environmental requirements; therefore, all learning is context dependent. In this regard, generalizibility of an ability acquired in a specific context to other environments, as Piaget suggested, cannot be taken for granted (Rogoff, 2003).

The sociocultural perspective mainly derives from the propositions of Vygotsky (1978) who argued that behavior is adapted to fit the context and the context is structured to support the behavior. According to Vygotsky (1978), the development of higher forms

of cognition originates in interaction with more skilled people who facilitate child's learning through the use of language and non-verbal teaching strategies. Children develop cognitive skills as they participate in sociocultural activities. Thus, this perspective recognizes traditional tasks such as weaving, tailoring, and oral mathematical calculations learnt in everyday task-oriented interactions as valuable specific learning experiences that are no different than school learning. Based on findings of cross-cultural research, the sociocultural perspective puts forward that familiarity plays a crucial role in person's cognitive test performance and "Western" schooling as a cultural institution is the main source of this familiarity. In this sense, the Context Specific Learning Model of Sociocultural Development Theory (Cole et al., 1976; Greenfield, 1974; Lave, 1977) refutes the idea that general cognitive processes can be examined through tasks such as tests of Piagetian reasoning, classification, logic, and memory.

To sum up, the sociocultural approach is compatible with the findings of cross-cultural studies which indicate that not everyone goes through the same stages and that test performance shifts greatly with familiarity. In addition to compatibility with cross-cultural findings, the sociocultural approach is valuable in terms of underlining the role of cultural values attached to intelligence and maturity in the development of cognitive skills. Besides these strengths, the sociocultural approach also brings an integrated view to human development. Within this framework, cognitive, social, motivational, physical, emotional, and other processes are regarded as aspects of sociocultural activity rather than separate, free-standing capabilities or "faculties", as has been previously acknowledged in psychology (Rogoff, 2003).

Although there is no doubt that the sociocultural approach contributed to a better understanding of development of cognitive skills by revealing the interactive nature of learning process, relativist claims inherent in the Context Specific Learning Model has been subjected to criticisms (Kağıçıbaşı, 1996; Schweder, 1990). Kağıçıbaşı (1996) states that if the context specific learning model is seen to define all learning, then, there will be no shared attributes, no common standards and no possibility of comparison. Kağıçıbaşı (1996) criticizes the relativist approach in the sense that the relativist view cannot deal with the problem of a child who cannot perform cognitive tasks necessary for school context but, for example, is skilled in filling spools for weaving. According to the relativist point of view, weaving is just another context for learning and schooling is not superior to any other context (Greenfield & Lave, 1982). However, this kind of total relativism is problematic because with mass schooling today, not only children of modern/urban societies but also children of traditional/rural societies are evaluated on the basis of universal cognitive standards of achievement. This brings disadvantages for children raised in traditional contexts. In this respect, it might be useful to be precautious about a totally relativist view, in order to protect children of rural/traditional background from the disadvantaged position they may face in schooling contexts of the urban setting. Examining how differently children of traditional/rural and modern/urban societies perform in cognitive tests of "West" may provide a valuable insight that can help correct the disadvantaged position of the former group.

2.2 Cultural Definitions of Intelligence and Cognitive Test Performance

Research on the relations between cognition and culture has recognized that people from varying cultural backgrounds have different approaches to cognitive tasks, depending on the ways that maturity and intelligence are conceived in their communities. According to Goodnow (1976), differences among cultural communities in performance on cognitive tasks are due to varying interpretations of what the problem is and different values defining "proper" methods of solution.

For example, the appropriateness of treating a cognitive task as a self-contained intellectual puzzle independent of the social context varies across communities (Rogoff, 2003). Mostly, in traditional communities, people look for the cues in the social context for solution of an intellectual task. Similarly, speed of problem solving is evaluated either favorably or negatively. Ugandan villagers associated intelligence with adjectives such as *slow, careful*, and *active*, whereas Westernized groups associated intelligence with the word *speed* (Wober, 1972 as cited in Rogoff, 2003).

Some groups such as Mexican Americans and Africans define children's intelligence in terms of both capability in specific situations and social responsibility (Irvine, 1970 as cited in Rogoff, 2003; Serpell, 1977). For example, Mexican American ideas of intelligence are reflected in the term *educado,* which has a broader meaning than the English word *educated*. *Educado* refers to attaining through orientation by the family, a sense of moral and personal responsibility and respect for dignity of others that serves as the foundation for all learning (Rogoff, 2003). Similarly, findings of research

(Nsemenang, 1993) from Africa indicate that definitions of intelligence include descriptions of social abilities in these communities. This is in conflict with popular conceptions of intelligence held by the European Americans who regard technical intelligence as distinct from social and emotional skills (Rogoff, 2003). This incompatibility between African and Euro-American conceptualization of intelligence is assumed to exist between most traditional societies and their Westernized counterparts.

Conceptions of intelligence in Turkey are in line with these findings. Kağıçıbaşı (1996) analyzes the etymology of the word "uslu" in the Turkish language which is used particularly as a characteristic of children, meaning a combination of good mannered, obedient, quiet, not naughty, and not boisterous. The etymology of the word reveals that it is made of the root "us" and the suffix "lu", referring to belonging, meaning "with us'" or "having us'". The "us" root, in turn, means "reason". Thus, apparently the word "uslu", meaning "rational" originally, has shifted in meaning in its everyday use in child rearing. Kağıçıbaşı (1996) claims that restrained, quiet, obedient, and good-mannered behavior was associated with being reasonable and rational to start out with, and therefore, the term for the latter characteristic ("uslu") was used to refer to the former characteristic also. In time, however, the more concrete behavioral meaning appears to have gained prominence and the original meaning (rational) disappeared (Kağıtçıbaşı, 1996). This etymologic analysis reveals that social or interpersonal skills are thought to reflect cognitive competence and hence, included in its description.

To conclude, what is valued as an intelligent act in traditional communities may contrast with *Western* conceptualization of intelligence. While the former puts an emphasis

on social sensitivity and responsibility, the latter describes intelligence as, for example, competency in abstract reasoning. This may arise as an important problem when both groups are evaluated on the basis of the same system, which is generally the Western one today. In this respect, when intelligence tests are utilized to evaluate cognitive performance of individuals from traditional and modernized communities, it is necessary to recognize that groups may approach to the problems differently, depending on the ways that intelligence is conceived in their own communities.

2.3 Disadvantage

As it is indicated in the previous section, conceptualization of intelligence in traditional cultures may not be concordant with what is measured by intelligence tests which are prepared according to definitions of intelligence in Western societies. In this sense, any study which aims to compare the test performance of groups of traditional and western background should take into account the varying conceptualizations of competence across cultures. In fact, what is of similar importance might be the implications of these differences in definitions of intelligence for consequent differences in child-rearing values and practices.

As Goodnow (1980) indicated, each community's goals and endpoints of development and the methods of facilitating development come out of their own value judgements. Consistent with this, it is claimed that the valued characteristics of the child in a community will determine the socialization processes used in that community (Kağıtçıbaşı, 1996; Super & Harkness, 1986). This claim is evidenced in a study (Harkness & Super,

1992) which investigated the relations between differing parental conceptions of cognitive competence, their expressions in the organization of daily settings and child-rearing practices, and children's developmental outcomes. In Kokwet (Africa) where the definition of intelligence stresses social responsibility, customary child-rearing practices let 5-year-old children to take care of infants, 3-year-old boys to drive cows from the garden, and 8-year-old girls to cook dinner for the family. Children of similar ages from Cambridge, UK cannot perform these tasks. However, children from Kokwet do poorly in simple cognitive tasks such as retelling a story, while children from Cambridge have no difficulty with these tasks. Consistent with these findings, Kağıtçıbaşı (1996) claims that cognitive competence in culturally valued domains gets promoted, whereas development in other domains tends to lag behind.

Of course, conceptualizations of competence and child-rearing orientations that are linked to these conceptualizations vary in sociocultural groups because they are functional in their own context, the context in which they have been generated. However, social structural changes such as immigration to technological societies from less developed countries, rural-urban mobility, and shifts in economic activities might change these functional relationships between culturally valued patterns in child rearing and subsequent child outcomes (Kağıtçıbaşı, 1996). Through social structural changes, new cognitive skills and competencies may become necessary.

Problems are likely to arise when there is a mismatch between culturally valued patterns and new requirements brought by changes in the lifestyle. There might especially be misfits between cultural conceptions of competence of the minority group and those of

school culture in the host societies. For example, the work of Nunes (1993) revealed that while American-born parents valued autonomy, Mexican parents in the United States believed that if their children are quiet and obedient, then they would succeed in school. Parental beliefs about the importance of conformity, however, were found to be negatively linked to children's school performance in western contexts (Okagaki & Sternberg, 1993). This brief example suggests that the mismatch between child-rearing values of ethnic minority populations and requirements of modern school setting may cause a disadvantage for minority children.

Since school performance is considered to be one of the most important developmental outcomes for children of both ethnic minority population and host society (Kağıtçıbaşı, 1996), it is essential to figure out which contextual features foster and which others hinder school-related cognitive development. This way, proactive solutions can be formulated for children who come from disadvantaged backgrounds. Among all factors affecting child outcomes, parenting emerges as the most influential one (Belsky, 1981; Landry & Smith, 2001; Tamis-LeMonda, Bornstein, Baumwell, & Damast, 1996). In this respect, parenting (see Section 2.4) and its implications for children's development will be discussed in the following sections (see Sections 2.5 and 2.6).

2.4 Parenting

Across several past decades, parenting has become the focus of studies which have investigated the predictors of social and cognitive development in children. However, a

review of the studies in the literature shows that it is rather difficult to conceptualize parenting. Despite this difficulty, it has been posited that there are some dimensions along which parenting can be examined: these are responsiveness, sensitivity, affection, acceptance, directiveness, permissiveness, and punitiveness (Schaffer, 2003).

In fact most studies, especially those which investigate social outcomes, examine general parenting styles that arise from combinations of some dimensions. The most extensively researched categorization of parenting styles comes from the work of Diana Baumrind (1973) who proposed two dimensions, warmth/responsiveness and control, along which three basic types of parenting styles are placed: authoritarian, authoritative and permissive. Later, rejecting/neglectful parenting was added by Maccoby (1984) as a fourth parenting style.

Authoritarian parenting is marked by assertion of parental power; authoritarian parents rarely solicit the child's opinion and rarely praise their achievement, they tend to be directive and expect their orders to be obeyed without explanation. *Authoritative parenting* describes parents' relatively high levels of both warmth and achievement demands; these parents exercise firm control in a non-punitive manner; they encourage verbal interaction, communicate standards of conduct in a clear manner but do not use excessive restriction. *Permissive parenting* refers to the style characterized by love and affection but also by the exercise of limited control only. *Rejecting-neglecting parents* are neither responsive nor controlling to their child; these parents do not monitor children's activities, they provide little structure for the child which might help them understand the world better (Darling & Steinberg, 1993)

Although conceptualizing parenting in terms of general styles is useful to understand the framework through which characteristics of parents can be studied; researchers prefer to keep the distinction between parenting style and parenting practices, especially for the examination of the relations between parenting and children's cognitive outcomes. Inductive reasoning (e.g., providing explanations), warmth (e.g., nurturance, affection, support), and power assertion (e.g., punishment, restriction, obedience-demanding behavior) are some of the widely examined parenting behaviors in relation to child outcomes (Boratav, 2003). These parenting behaviors are observed in varying degrees in each parenting style (e.g., inductive reasoning is a significant component of authoritative parenting). However, while 'parenting style' refers to the quality, 'parenting behavior' refers to the content and frequency of practices (Stevenson-Hinde, 1998). In relation to that, Darling and Steinberg (1993) proposed a contextual model of parenting which explains the factors that influence both parenting styles and parenting practices while maintaining the distinction between the two attributes of parenting. Darling and Steinberg (1993) define parenting style as a constellation of attitudes toward the child that, taken together, creates an emotional climate in which parenting behaviors are expressed. According to Darling and Steinberg (1993), both parenting styles and practices result in part from the goal and values parents hold. However, each of these parenting attributes influences the child's development through different processes. Parenting practices have a direct effect on the development of specific child behaviors (e.g., academic performance) and characteristics (e.g., self-esteem). According to this view, parenting practices are the mechanisms through which parents directly facilitate the attributes they want their

children to have. In contrast, the primary processes through which parenting style influences child development are indirect. Parenting style moderates the effect of parenting practices by influencing the nature of the parent-child interaction and the child's personality, especially his/her openness to parental influence (Stevenson-Hinde, 1998).

To sum up, among the two attributes of parenting, parenting behavior emerges as the element of parenting which has direct influence on child outcomes. In this regard, while recognizing the importance of the role played by parenting style as the determinant of home emotional climate and the nature of general parent-child interaction, it seems to be more informative to focus on parenting practices as we investigate parental influences on children's development, particularly their development of cognitive abilities.

2.5 Parenting and Sociocultural Context

Parenting, by definition, takes place in the family system which is constructed by the broader sociocultural context. Thus, before explaining how parenting is related to child cognitive outcomes and elaborating on the links between traditional child rearing and school performance, it is necessary to describe how family systems are shaped by the socioeconomic cultural context.

When we examine the literature on culture and parenting, we see that culture has been predominantly investigated within the "individualism-collectivism" framework. This framework has been found to be useful as a culture-level explanation for observed cultural differences in social behavior (Triandis, 1988). However, with regard to the influence of

culture on family process and functioning, research mostly focus on dependence-independence dimension of the culture (Kağıtçıbaşı, 1996; Markus & Kitayama, 1991; Rothbaum, Pott, Azuma, Miyake, & Weisz, 2002; Triandis, 1997).

In sociocultural contexts where dependence characterizes the intergenerational relationships within family, child socialization primarily emphasizes compliance and obedience. However, in cultures where familial relationships are based on independence, child rearing stresses autonomy and self-reliance. The sociocultural orientations of independence and interdependence are related to specific environmental contexts with particular models of family. These family models are described in detail by Kağıtçıbaşı (1996) and presented in the following sections (see Sections 2.5.1, 2.5.2).

2.5.1 Family Model of Interdependence

Kağıtçıbaşı (1996) explains the typical model of interdependence as prevalent in rural, agrarian, traditional societies with closely knit human/family relations where material and psychological intergenerational interdependence is crucial for survival. The prototype for the interdependent family typically entails “functionally extended family” structures even though many households may be nuclear. The family functions as if it were extended in carrying out such tasks as home production of goods, child care and so on. The familial responsibilities are executed with the help of kin (other families). This is often made possible by the close proximity of kin from different generations. Given the

low affluence level and agricultural lifestyle of this family model, such shared work is highly adaptive for survival. Thus, the family is interdependent with kin.

In relation to parent-child interdependencies, economic/utilitarian and psychological/emotional values of children for parents can be distinguished (Kağıtçıbaşı, 2002, Tromsdorf & Nauck, 2005). Economic/utilitarian value refers to children's value for parents in terms of providing material benefit by working with family or helping household work when young, and providing old age security for parents when grown up. On the other hand, psychological/emotional value of the child refers to the worth attributed to children for the love, joy, pride, and companionship they bring.

In the interdependent family type, the interdependence between generations is particularly notable. In these contexts, wide-scale old-age pensions and social security systems are usually absent and adult offsprings are the main source of "old-age-security" for the elderly. In fact, the interdependent family system indicates both material dependencies and emotional dependencies between generations. Kağıtçıbaşı (1996) states that the distinction between material and emotional dependencies is important because, they are differently affected by the social change and modifications in the life style. Although material interdependencies across generations decrease with increased affluence (e.g., urbanization, education, etc.) emotional interdependencies do not change with socioeconomic development in the cultures of relatedness.

Child rearing in interdependent family systems entails an obedience/dependence orientation, characterized by control rather than autonomy. Although it is claimed that the family model of interdependence is characterized by more permissive parenting in early

childhood (Delagado-Gaiton & Trueba, 1991; Khounani, 2000; Leyendecker & Schölmerich, 2006) this is not an indication of autonomy orientation in parenting at younger ages. Rather, it is a parenting strategy which functions to let young children enjoy flexibility of family environment before responsibilities for the community become necessary at older ages. In this sense, although permissiveness tendency is evident in parenting in family model of interdependence, it will be erroneous to think of an autonomy orientation as predominant in these contexts. On the contrary, obedience/control oriented parent-child interaction and socialization are prevalent in this context for family survival, because an obedient child is more likely to become a loyal adult offspring who continues to maintain close relationships with the parents, uphold family needs and invest in elderly parents who lack old-age pension or any kind of social security (Kağıtçıbaşı, 1996). On the other hand, "independent" children would be more likely to look after their own individual interests, rather than taking care of parents in their older ages. So, independence training is not adaptive in interdependent family model.

2.5.2 Family Model of Independence

The typical model of independence comes from Western, industrial, urban/suburban, middle-class society with a culture of separateness (individualism). The family model of independence entails separateness of both the family from other families and of its members from one another (Kağıtçıbaşı, 1996). This model is distinguished by

separateness of generations and the emotional and material investments channeled toward the child rather than to the older generation. The unit is the individuated nucleated family.

In this context, having children entails economic costs, not assets. Especially with mass education (LeVine & White, 1986), total time spent in school increases, children's utilitarian contribution to the family diminishes, and schooling expenses become considerable for parents. Accordingly, in the absence of children's economic value, their psychological value becomes more important. This brings an emphasis to the needs of the child in the independent family model (Woodhead, 1991), as opposed to a parent-family centered orientation that is prevalent in the family model of interdependence.

Socialization values and family interactions promote the development of an independent, separated self with clearly defined boundaries. There is less control in child rearing; it entails a relatively permissive parenting compared with the authoritarian parenting of the model of interdependence. This is because independence and self-reliance are valued in a socio-cultural economic context where intergenerational material dependencies are minimal. Due to affluence of the society which brings old-age security for its members, children's material contribution to their elderly parents is not required (Kağıtçıbaşı, 1996). Therefore, development of individual autonomy is valued in family model of independence (Kağıtçıbaşı, 1996). In line with the high value put on autonomy, the family model of independence also values related concepts like self-reliance, self-sufficiency, privacy, individual achievement, and freedom.

To sum up, when these two sociocultural contexts are compared in terms of their child-rearing orientations, the main difference appears to be the shift from a parent/family-

centered outlook to a child-centered one. In the family model of interdependence, children, like other family members, are expected to carry responsibilities for the family survival (Kağıtçıbaşı, 1996). Therefore, their economic/utilitarian value becomes important. However, in the family model of independence observed in urbanized modern societies, the psychological value of children comes to the fore. This brings an emphasis on the needs of the child in this family model and creates a more conducive environment to child development in modern society.

Beyond these two sociocultural orientations leading to the family model of interdependence and independence, Kağıtçıbaşı (1996) puts forward a third family model called *the model of emotional interdependence*. It is stated that this third family model emerges with ongoing socio-structural changes in the traditional interdependent family system and the families living in more developed/urban areas of collectivist countries constitute its prototype (Kağıtçıbaşı, 1996). Since most of the Turkish immigrant groups become urbanized with immigration to Europe, it can be thought that it is the emotional/interdependence model which best represents the familial patterns for these groups in Germany.

Nevertheless, it is also known that some aspects of family processes such as child-rearing practices are highly resistant to change and changes in these domains take a lot of time to be seen (Kağıtçıbaşı, 1996). The support for this argument comes from studies (Kağıtçıbaşı, 1982, 1988; Kağıtçıbaşı, Sunar, & Bekman, 2001) which are conducted with rural background low-SES Turkish mothers who migrated to urban areas (i.e., Istanbul) in Turkey. In these studies, it was found that most mothers continued to value interdependent

orientations such as “obeying parents” as the most desired characteristic of their children after immigration while very few of them desired an independent and self-reliant child. In conclusion, research findings suggest that socio-structural changes brought by urbanization do not lead to immediate changes in parenting orientations of Turkish mothers with a rural background. Although internal and external immigration may have different implications for the changes in family systems, it might be expected that the impact of external immigration on parenting orientations of rural, low-SES Turkish families show similar patterns to the effect of internal immigration, since the shift in both immigration types is from rural to urban.

2.6 Turkish Immigrants in Germany

Detailed sociological analyses and history of Turkish immigration to Germany are given by Abadan-Unat (2002) who is a Turkish sociologist well-known with her studies on Turkish external immigration to Europe. According to the reports of Abadan-Unat (2002), immigration of the Turks to Germany has begun from the second half of 1950s as a labor migration. Following the devastation of the Second World War, West Germany invited both qualified and non-qualified workers from Southern Italy, Spain, Greece and Turkey to re-build its economy. In the beginning, Turkish workers were invited to Germany to improve their occupational skills and these initiatives were mainly taken by persons such as businessmen from Istanbul who had a German wife or some Turkish private entrepreneurs who were settled in Germany. Therefore, the migration was very

limited in the beginning. However, from 1960s on, the number of Turkish workers in Germany greatly increased due to the growing need of Germany for labor. While the number of Turkish workers gone to Germany was 2.700 in 1960, this number has increased to 27.500 in 1963. These workers were mainly non-qualified and mostly from rural areas of Turkey (Abadan-Unat, 2002).

Initially, it was planned that Turkish workers would stay in Germany for one year and they would go back to Turkey at the end of this period. In this respect, they were not allowed to take their families with themselves. The German term "Gastarbeiten" (guest workers) were used for Turkish workers in those years. However, at the end of the one-year period, both employers and workers wanted to lengthen the duration of workers' stay (Abadan-Unat, 2002). This has led changes in the future plans of workers: they postponed their return to Turkey till retirement and they began to bring in their families to Germany. Due to the laws allowing family reunions and high birth rate among Turkish population, the number of Turkish immigrants in Germany sharply increased. According to the reports of the Federal Statistics Institute - Center for Research on Turkey (2006), number of Turkish citizens in Germany was 1.877.661 by the year 2003 and 4.9 % of this population was under the age of six.

Despite the large number of Turkish immigrants living in Germany, studies conducted on this population are very limited. Because the Turkish population in Germany is very young (26.5 % was under age of 18 by the year 2003) (Federal Statistics Institute - Center for Research on Turkey, 2006), the problems regarding education has been indicated to be of key importance. Abadan-Unat (2002) points to the low educational

attainment of Turkish immigrants and reports that only a small portion of children of foreign workers complete Hauptschule (eight-year elementary school). It is also reported that within the first years following family reunions in the 1980s, 60% of Turkish immigrant children in Germany had dropped out of these elementary schools and only 18% of the Turkish youth within the age of 15-21 could get the chance to graduate from a school giving an occupational education. Findings coming from other European countries such as the Netherlands (Boogaard, Damhuis, Glopper, & Bergh, 1990 as cited in Leseman & Boom, 1999) also show that immigrant children display low success at school. In this respect, it is of special importance to reveal the reasons leading to low school achievement of immigrant children.

There are several factors which act as a barrier to the success of Turkish immigrant children at host society schools. Among all, problems regarding language, difficulty in adapting to a new environment, differences in school systems and perceived discrimination appear to be the most important ones. Mostly, these problems require solutions at the societal level. However, as *ecological systems theory* (Bronfenbrenner, 1979) emphasized, the influence of macro level factors such as government's education policies on children's development is largely mediated by micro level processes such as family functioning. In this respect, understanding the influence of home proximal processes reflected in parents' socialization values and child-rearing practices on children might have several implications for the solution of school problems of Turkish immigrant children. Home environment which lacks cognitive stimulation that is necessary for child development such as inadequacy in providing literacy experiences at home before school

started might be the very reason why Turkish immigrant children in general fail in school. Additionally, some cultural orientations learnt at home might be inconsistent with the requirements of school context and these inconsistencies may further worsen the situation for immigrant children.

For an in-depth understanding of how home proximal environment in immigrant families influences Turkish children's school performance, it is necessary to elucidate the general relationships between parenting and development of cognitive skills. In this respect, the following section (see Section 2.7) elaborates the link between parenting practices and children's school-related cognitive skills.

2.7 Parenting and School-related Cognitive Skills

It is widely assumed that parenting plays an influential role in children's development (Wertsch, 1980). In line with this assumption, studies which have investigated the relationship between parenting and cognitive skills have consistently shown that development of cognitive skills is highly influenced by the quality of interactions the child has with caregivers (Estrada, William, Roberts, & Holloway, 1987; Landry & Smith, 2001; Pierce & Garrett, 1996; Tamis-LeMonda, Bornstein, Baumwell, & Damast, 1996; Winjronks,1998).

Studies mostly refer to the importance of involvement with the child and positive parenting practices evidenced by a child-centered and autonomy-promoting orientation in mother-child interaction. For example, the National Institute of Child Health and Human

Development (2005) found that maternal cognitive stimulation involving attempts to enhance child's perceptual, cognitive, and linguistic skills and sensitivity of care (e.g., non-distress, non-intrusive positive regard, supportive presence of the mother and respect for autonomy of the child) emerge as the strongest predictors of attention and memory performance of children in the first grade. Other studies (Estrada et al., 1987) also revealed that parenting which comprises attentive, warm, verbally stimulating and non-restrictive child rearing fosters early mental abilities (e.g., competency in vocabulary and mathematics concepts.). According to Estrada et al. (1987), this kind of positive parenting supports the child's exploratory tendencies and the child's willingness to approach and persist in tasks further contributes to his/her cognitive performance. Tamis-LeMonda et al. (1996) argue that positive parenting practices facilitate the development of cognitive skills through guiding child's learning initiatives and supporting his/her efficacy, motivation, and sense of security.

In sum, past literature indicates the importance of parental responsivity on children's development. However, when cognitive skills are the child outcomes which are investigated in relation to parenting, parental responsivity in the form of verbal interaction appears to be the most critical dimension of optimal parenting (Tamis-LeMonda et al., 1996). Verbal responsiveness has been generally described as mothers' prompt, contingent, and appropriate verbal replies to changes in children's verbal and exploratory behaviors (Bornstein & Tamis-LeMonda, 1989). Most of the studies point to the positive association between parental verbal responsiveness and children's language development (Hoff, 2003; Laosa, 1982, 1984; Slobin, 1972; Snow, 1991, 1993). The influence of

parental responsivity on children's language development is of special importance because language skills are found to be the most important predictors of better school performance (Martini, 1995, 1996; Martini & Mistry, 1993). Studies which investigate the role of parenting in language skills (Snow,1991, 1993) found that extensive adult-child verbal interaction involving reasoning, asking and answering questions, story telling, book reading, and discussion of ongoing events is positively related to children's development of oral language skills and literacy. These findings also imply the importance of "culture of literacy" (involving familiarity with printed media, world knowledge, vocabulary, etc.) at home for children's school-related cognitive performance.

In relation to the role of parental responsivity in child cognitive outcomes, frequency of parent-child *dyadic play interactions* have been claimed to be a good indicator for responsive parenting. Several studies have found parent-child dyadic play to be positively associated with the development of young children's cognitive skills such as memory, problem solving, early number concepts, generalization skills, classification abilities, and language (MacDonald, & Parke, 1984; NICHD, 1999; Tamis-LeMonda, Bornstein, & Baumwell, 2001; Tamis-LeMonda, Shannon, Cabrera, & Lamb, 2004). It is claimed that, as opposed to parent-child engagements in other settings such as during teaching tasks or clean-up, parent-child dyadic play engagements tend to elicit positive behaviors such as sensitivity, respect for the child and cognitive stimulation which are known to be facilitating child cognitive outcomes (Tamis-LeMonda, Shannon, Cabrera, & Lamb, 2004).

To conclude, the literature points to the positive relationship between some specific parenting practices and children's cognitive development. Among these parenting practices,

parental verbal responsivity, involvement with the child, use of praise and reinforcement, promotion of autonomy development, provision of literacy experience at home before school and parent-child dyadic play interaction emerge as the most important positive predictors of children's cognitive outcomes.

2.7.1 Sociocultural Context, Parenting and School-related Cognitive Skills

As it is explained in detail earlier in this thesis (see Section 2.5), family functioning and parental socialization values vary greatly across independent (individualist) and interdependent (collectivist) cultures. Because parents' values influence their practices, children's daily experiences and abilities, it is of key importance to elucidate the relations between sociocultural context and parental socialization. Examining these links may help us to understand how children from different sociocultural contexts develop cognitive skills.

Among various aspects of parenting, parental verbal responsivity emerges as one of the most important predictors of children's development, especially in terms of cognitive outcomes (Snow, 1991,1993; Tamis-LeMonda et al., 1996). Nevertheless, it is found that provision of verbal responsiveness to the child varies across cultures (Laosa, 1982, 1984). In relation to this, it is revealed that minority parents are less likely to engage in verbal interactions with their children than host families. Laosa (1982) showed that Hispanic mothers typically use less verbal interaction with their young children; they used less praise and less inquiring (e.g., the mother asks the child a question) but more modeling,

directives and negative physical control than Anglo-mothers in U.S.A. The researcher (Laosa, 1984) suggested that these differences in parenting explain the lower performance of Hispanic toddlers of 2 ½ years of age in verbal ability, memory, logical classification and reasoning ability compared to Anglo toddlers. Similarly, Slaughter (1988) reported that Black children displayed a lower language-based cognitive performance than White children in U.S.A. and explained this on the basis of lack of decontextualized communication and play with young children in Black families.

Consistent with these findings, examining mealtime conversations, Martini (1995) found that Caucasian American parents teach their children to participate in school-like conversations by guiding them to discuss novel information, to construct stories by explaining when, why, how and who, to connect events and to discuss the important points of the story. It has been suggested that in middle-class families, participation in school-like discourse begins by the time children begin to talk. Rogoff et al. (1993) found that middle-class mothers in U.S.A. provided language lessons to their 12-to-24 months old children by labeling objects, requesting labels, giving running commentary on events and playing language games often involving test questions that requested information the mothers already knew (such as "Where are the baby's eyes?) and it has been revealed that children who had more exposure to this kind of middle-class ways of talking and to books do better on preschool tests (Martini & Mistry, 1993).

The findings also indicate that literacy environment at home is a strong predictor of children's cognitive performance and mostly parents from middle-class, modernized sociocultural contexts provides literacy experience to their children at early ages. In line with

this, Rogoff (2003) relates better school performance of American middle-class children to existence of "culture of literacy" at home. In middle-class families in the United States, young children begin to develop literacy skills by the help of older family members reading with them, the presence of reading materials and routines emphasizing reading such as adults reading in children's presence. Picture books made of durable materials are offered to middle-class babies, and bedtime stories are part of their daily routine. Sénéchal and Le Fevre (2002) found that middle-class Canadian parents start reading storybooks to their children when they are 9 months old, and, on average, their young children have 61 to 80 children's books at home. Indeed, it has been found that early book reading correlates with later school language and reading performance (Whitehurst, Arnold, Epstein, Angell, Smith, & Fischel, 1994). Rogoff (2003) states that children with experience of books and literate stories develop a sense of how text should be organized (such as how short and long sentences should alternate and what sentences with subordinate clauses sound like) and therefore easily develop the ability to produce coherent discourse.

Similarly, parent-child dyadic play, which is claimed to be an important indicator of parental responsivity, shows variation across cultures. Although children's play seems to be a universal practice existing in all cultures, the type and occurrence of play changes from culture to culture. It has been found that parents in modernized "Western" societies are more likely to engage in dyadic play interaction with their children than rural background, low-SES, traditional groups (Göncü, Mistry, & Mosier, 2000). The studies conducted in Anglo-American and European societies found that middle-class parents regard their participation in dyadic play as important for preschoolers' cognitive and language development and some see

their involvement as preparing toddlers for school (Farren, 1982; Farver, 1999; Harkness & Super, 1992). For example, Vandermass-Peeler (2002) showed that in the United States, parents use various types of scaffolding during play, including teaching the child, commenting on play and making suggestions. In this sociocultural context, parents often use play as tool to teach "conceptual knowledge" to children (e.g., "this is how the doctor takes your blood pressure."). Therefore, adults in middle-class western communities often engage with children as peer and become playmates with children.

However, adult-child play interaction is not common in some cultures. The duration of play activity is less in traditional, interdependent societies where children are expected to provide utilitarian benefit to the family like helping in housework. In these communities, children's play is not regarded as an activity to be encouraged or joined by parents. Instead, the child is expected to play with other children or other family members but not the mother or the father (Mistry, 1993; Rogoff & Mosier, 1993; Serpell, 1993). In their extensive study conducted in twelve cultural groups, Whiting and Edwards (1988) revealed that middle-class U.S. mothers were most likely to interact with children in a friendly, playful or conversational way as equals. In traditional communities such as Samoan (Ochs, 1986) and Kaluli (Schieffelin, 1986), mothers maintained an authority role, stressing training or custodial care. In such communities, children's conversational role may be to speak when spoken to, reply to informational questions, or simply carry out directions (Blount, 1972; Harkness & Super, 1977; Heath, 1983).

As the review of literature has indicated (see Section 2.6), parenting that is optimal for development of school-related cognitive skills mainly includes provision of cognitive

stimulation to the child at home which is especially indicated by parental verbal responsivity, reading to the child or other family routines emphasizing literacy. Nevertheless, cross-cultural studies reveal that these parenting practices which are found to be positively linked with children's school-related cognitive outcomes are more likely to occur in middle-class, modernized, western societies with independence orientations rather than in less developed, traditional, interdependent sociocultural contexts.

2.7.2 Turkish Immigrant's Parenting Practices and Development of Cognitive Skills

As mentioned earlier in this thesis (see Section 2.6), studies about Turkish immigrant families are very limited. Yet, it is known that Turkish immigrants in Germany are mostly from low-SES, rural areas of Turkey (Abadan-Unat, 2002). In this respect, parenting practices of Turkish immigrant groups might be regarded as mainly representing traditional, low-SES, and rural/agrarian child-rearing patterns in Turkey. This section presents information about these traditional parenting behaviors and parent-child interaction forms to shed light to the patterns of relationships in Turkish immigrant families.

Similar to the findings coming from other non-western, interdependent sociocultural contexts (see Section 2.7.1), studies conducted in Turkey point to low levels of environmental stimulation in low-income rural areas. In these contexts, stimulating materials such as toys and books are few in number, and logical verbal reasoning and communication are used rarely to support the child's intellectual growth and language. In

an early anthropological study in a Turkish village, Helling (1966) showed that parents used demonstration, imitation and motor learning rather than verbal explanation and reasoning as a teaching style (as cited in Kağıtçıbaşı, 1989). Kağıtçıbaşı (1989) relates this to the limited vocabulary and verbal competence of the parents in the poor setting, with low level of formal education. Absence of a conscious 'child-centered' and 'child development-directed' effort to 'teach' young children is also responsible for the lack of verbal reasoning with the child, and this attitude has its roots in the view that children are uneducable until school age.

Consistent with these findings, a few studies conducted with Turkish immigrants in the Netherlands also indicated the prevalence of a child-rearing environment that is not conducive to child cognitive development in immigrants as compared to host families (Leseman & Boom, 1999; Willemsen & Vijver, 1997). In a study which examined the effects of mother-child literacy and problem-solving interactions on 3-4-year-olds children's cognitive development in a sample of Dutch, Surinamese and Turkish immigrant families all living in the Netherlands, Leseman and Boom (1999) revealed that children in these cultural groups displayed varying levels of cognitive competencies. It is found that Turkish children performed lower than Dutch middle- and low-socioeconomic status and Surinamese children in productive and receptive vocabulary, and semantic-taxonomic and logo-mathematical concept knowledge. Leseman and Boom (1999) suggest that these differences in children's cognitive performances are related to differences in the quality and quantity of parent-child interactions. It was found that quality and quantity of mother-child interactions during literacy and problem solving tasks were lower in Turkish

immigrant families as compared to both middle and low-SES Dutch families. An analysis of the instruction quality during joint book reading revealed that Turkish parents displayed comparatively high proportion of low-distancing utterances (e.g., lower levels of explanations and evaluations regarding the topic) and Dutch parents used high level narrative extensions (e.g., asking topic extending questions such as "what did the boy do then?") and story evaluations. The results of this study (Leseman & Boom, 1999) also showed that there were differences in social-emotional quality of mother-child interactions during book reading and problem solving. Middle-socioeconomic status Dutch parents displayed the highest levels of supportive presence, respect for the child's autonomy, effective structuring and limit setting, and confidence in success of the ongoing interaction while Turkish families obtained the lowest scores in these aspects of socio-emotional quality of the mother-child interaction during joint book reading and problem solving.

While lack of development-fostering parenting practices in Turkish immigrant groups (e.g., paucity of verbal explanation during mother-child interaction) can be attributed to the low educational status of the parents, some of the problems in parenting mainly stem from values prominent in the family model of interdependence. As it is explained earlier in this thesis (see Section 2.5.1), the attribute that is valued is the child's dependence rather than independence within the context of family interdependence. What is expected from the child is not autonomous action or decision making but obedience to the parent (Kağıtçıbaşı, 1996). This obedience seeking parental orientation might be the reason why Turkish immigrant parents are usually found (Leseman & Boom, 1999) to be very low in supportive presence and respect for autonomy during joint book reading and

problem solving, as opposed to Dutch mothers who are likely to be coming from the family model of independence.

Another related and widely observed pattern in traditional Turkish parenting is the use of power assertion as a disciplining method. Physical punishment has been shown to be quite prevalent in the traditional Turkish family set-up (Kağıtçıbaşı, 1989). Similar findings have been indicated for Turkish immigrants living in Europe as well. Akcapar (2002) reported that Turkish immigrant women in Brussels mostly use power assertion as a disciplining method and beat up their children to assure the desired behaviors. Interviews with Turkish immigrant mothers in Belgium revealed that inductive reasoning with child to make the child aware of the consequences of his actions was rarely used by these mothers. Akcapar (2002) suggests that this is mainly because mothers do not see themselves as competent enough to explain things and children are mostly seen as uneducable at early ages.

Although power-assertive, strict disciplining of the child is prevalent in Turkey, this parenting pattern does not exclude the existence of emotional closeness between parent and the child. In relation to that, Kağıtçıbaşı (1970) claims that typical Turkish family is in fact warm in emotional atmosphere and do not differ from families in individualist cultures (e.g., America) in terms of affection.

Besides the use of corporal punishment, most of the Turkish immigrant mothers report that they do not play and spend quality time with their children (Akcapar, 2002). Reports of most mothers implied that they do not know about the needs of a growing child, they are not aware of the fact that playing with children, listening and talking to the

child are beneficial for their children's development. These mothers reported that they lack self-confidence to provide academic lessons to their children and help them with their homework. These reports of immigrant mothers are consistent with the findings coming from Turkey (Kağıtçıbaşı, 1982, 1986) and represent child-rearing practices used by low-SES, rural background Turkish families. As it is mentioned in the earlier sections where the family model of interdependence is explained (see Section 2.5.1), these negative parenting practices are mostly linked to the traditional values regarding children and child discipline in these contexts. Especially family/parent-centered outlook prominent in the family model of interdependence seems to be leading to less involvement with children and less emphasis put on child's needs in traditional Turkish family (Kağıtçıbaşı, 1996).

To sum up, home environment of Turkish immigrant families is mostly not optimal to child development and most of the parenting practices used by these groups are negatively related to the development of children's school-related cognitive abilities. However, it should be noted that the parenting patterns found in Turkey are not unique to Turkish culture. Most of these patterns are common to all traditional collectivistic "cultures of relatedness" (Kağıtçıbaşı, 2006) in which the family model of interdependence in pertinent. Another related point that should be kept in mind while examining child-rearing practices of Turkish immigrants is the need to disentangle the effects of culture from the effects of socioeconomic background, both of which may determine the lifestyle and, in accordance parenting practices (Kağıtçıbaşı, 1989). In this regard, the problems of child development observed in Turkish immigrant families might be related to lower

socio-economic development of the society rather than the cultural variation in child-rearing practices.

2.8 Gender Differences in Early Cognitive Skills

As the literature reviewed throughout this chapter has indicated, parenting practices are important predictors of children's early cognitive skills and cultural groups may display differences in these parenting practices. Although these culturally-based parental practices and their link to cognitive development are of primary interest, gender differences in cognitive skills are also examined in the present study. Hence, this section reviews the literature on gender-based differences and reveals findings for the similarities and differences in cognitive skills of boys and girls.

When the literature on early cognitive skills is reviewed, it is recognized that researchers have not examined or predicted gender differences in cognitive skills such as memory or classification and generally have not looked for them. And studies which analyzed gender differences mostly reported no significant differences in young girls' and boys' memory skills (Bjorklund, 2000). Similarly, there are no established gender differences in young children's classification skills (Osborne & Calhoun, 1998; Smiley & Brown, 1979).

On the other hand, when gender differences in language acquisition and verbal skills are considered, it is seen that there is an extensive literature on this topic. Despite the persistent belief that girls are better than boys at language and language-related skills,

previous studies have revealed mixed results. Some studies (Bornstein & Haynes, 1998; Clarke-Stewart, 1973 as cited in Bjorklund, 2000) have found that girls display higher rates of language acquisition, while other studies (McCarthy, 1954 as cited in Bjorklund, 2000) have failed to observe any significant gender differences, and some (Morisset, Barnard, & Booth, 1995) found a difference favoring girls for spontaneous speech but not on standardized tests. Studies which report a gender difference suggest that differences between girls and boys emerge at very early ages. Lewis and Freedle (1973, as cited in Bjorklund, 2000) reported greater vocalization for infant girls than boys. For example, 3-month-old girls were found to vocalize more than boys in response to their mother's invitation to talk.

When gender differences in language acquisition is investigated in relation to mothers' talk to their sons and daughters, Leaper, Anderson and Sanders (1998) reported moderate gender differences, with mothers talking more and using more supportive speech with their daughters than with their sons. Similarly, Reese, Haden and Fivush (1996) found that parents used a more elaborative conversation style with their daughters than with their sons when prompting them to remember past events. Based on these findings, gender differences in language favoring girls might be attributed to different ways in which girls and boys are spoken to.

There are, however, some studies which failed to establish a link between socialization and gender differences in early language skills. Haden, Haine and Fivush (1997) reported that girls between 40 and 70 months of age produced longer and more structured narratives than boys of the same age did; however, there were no differences in

how parents used narratives with their sons and daughters. This finding indicated that girls are more advanced in their language production than boys but socialization explanation cannot adequately account for these gender differences.

In sum, the literature suggests no conclusive answer to the question of gender differences in language acquisition. While some of the studies reported no significant gender differences in verbal skills, most of them revealed significant differences favoring girls despite they have small effect sizes. The issue becomes more complicated when questions about where these gender differences in language stem from are asked. The findings are again inconclusive but it is likely that the nature of parental speech used toward boys and girls, and physiological differences both play a role in reported gender differences in language (Bjorklund, 2000).

In the present study, young children's ability to use strategies during play with puzzle-type toys, their memory, categorization and body-related vocabulary skills were measured. Literature suggests no gender differences in these cognitive skills, but there are studies which report differences in young girls' and boys' language skills. Although children's language skills are not directly measured in this study, children's performance in body-related vocabulary tasks are linked to their verbal skills. In this sense, examining the literature on gender differences in early language development may contribute us to better interpret the differences of boys and girls in cognitive skills that this study focused on.

Chapter 3

THE PRESENT STUDY

Previous chapter (Chapter 2) provides recent findings for the relations between parenting practices and young children's cognitive skills (Bornstein & Tamis-LeMonda, 1989; Estrada et al., 1987; Laosa, 1982, 1984; National Institute of Child Health and Human Development, 2005; Slobin, 1972; Snow, 1991, 1993; Tamis-LeMonda et al., 1996). Chapter 1 also presents findings about the link between SES, culture and parenting (Göncü et al., 2000; Farren, 1982; Farver, 1999; Harkness & Super, 1992; Mistry, 1993; Rogoff & Mosier, 1993; Serpell, 1993) and gives a summary of the studies which have investigated parenting and child cognitive outcomes in Turkish immigrant and other cultural groups, mainly those in Europe (Leseman & Boom, 1999; Tuijl & Leseman, 2004).

While a limited number of studies (Leseman & Boom, 1999; Tuijl & Leseman, 2004; Willemsen and Vijver, 1997) have been conducted with Turkish immigrants in Europe (e.g., in the Netherlands), to my knowledge, there is no cross-cultural study which comparatively investigated the parenting patterns and children's cognitive skills in Turkish immigrant and German families. In this respect, this study aims to unravel the differences between Turkish immigrant and German groups in terms of parenting practices and children's cognitive skills.

The literature indicates that factors influencing children's school-related cognitive skills lies in home proximal processes which are mainly reflected in parenting practices (e.g., responsivity, involvement, structuring of children's daily activities such as provision of literacy and dyadic play experiences, using verbal disciplining strategies). Although parenting dimensions which act as predictors of child cognitive outcomes are similar across cultures, parenting practices of different cultural groups may lie in different ends of these dimensions: while parents in some cultures display a specific parenting practice very frequently, parents in other cultures may tend to use it less. Therefore, depending on culture, school-related cognitive skills of children may either be facilitated or inhibited. In this respect, this study also aims to investigate the effects of parenting practices on children's early cognitive skills in the two cultural groups to understand some aspects of the mechanisms leading to low school performance for Turkish immigrant children. Therefore, the relations between parenting practices and children's cognitive abilities are also of particular importance for this study.

3.1 Proposed Associations between Family Predictors

Previous studies have shown that positive and negative aspects of parenting can be differentiated from each other and these aspects are mostly negatively related to each other. In this respect, positive parenting practices such as provision of praise to the child, and involvement with child's school activities are expected to be negatively associated with negative parenting practices such as corporal punishment and inconsistent discipline.

Level of parental structuring on children's daily routines such as parent's control over timing of tv watching or sleep for children is also considered to be a positive aspect of parenting. Therefore, parental time management is expected to be positively associated with parental involvement.

Given the established relations between parenting practices and children's daily interactions, it was expected that parents who reported to be more involved with their children would engage in more parent-child dyadic interaction with their children. Mothers' involvement with the child was also expected to be positively related to total time of family interaction during the day, and negatively associated with children's daily activities which consist less interaction with the parents such as tv watching.

With regard to the relationship between negative parenting practices and children's daily experiences, it was expected that mothers who used more corporal punishment and inconsistent discipline to their children would provide positive daily experiences less such as reading to the child. Children of those mothers who showed more negative parenting were also expected to have less opportunity to engage in dyadic interaction with the mother and more likely to engage in non-interaction activities such as tv watching.

3.2 Prediction of Cognitive Competence from Family Factors

As it is described in earlier sections (see Sections 2.7 and 2.8), child-centered parenting practices have, in general, been found to facilitate children's cognitive skills. It

was also found that cognitive stimulation at home such as provision of literacy experience to the child is a strong predictor of child cognitive outcomes.

In this respect, child-centered approach of parents which is indicated in parents' involvement with the child such as provision of parent-child dyadic play interaction, use of positive parenting practices such as prasing child and providing care and affection, and provision of literate experiences at home such as reading to the child were expected to predict children's cognitive skills positively. On the other hand, power-assertive parenting as an indication of use of less verbal-inductive reasoning with the child was expected to predict children's cognitive skills negatively. Based on research findings reviewed in the earlier chapter (see Chapter 2), these relationships between parenting factors and children's cognitive skills were expected to be similar in both Turkish and German samples.

3.3 Comparison of German and Turkish Samples

Turkish and German mothers were expected to show different patterns of parenting, mainly as a result of a parent-centered orientation prominent in the family model of interdependence as opposed to child-centered family functioning in the family model of independence. In relation to this, it was posited that Turkish mothers would show lower levels of involvement with child and higher levels of power-assertive disciplining including corporal punishment than the German groups. On the other hand, it was expected that German mothers would provide higher levels of cognitive stimulation to the

child at home such as reading to the child or parent-child dyadic interaction. The two cultural groups were also expected to differ in 'time management' dimension of parenting. Observations in Germany (Leyendecker & Schölmerich, 2006) showed that German mothers usually have more control over children's daily schedule than Turkish mothers.

The two cultural groups were also expected to differ in multiparty daily interactions. As a result of close familial ties prevalent in the family model of interdependence, and in part due to higher number of children in Turkish immigrant families, Turkish immigrant children were expected to spend longer times in family interaction and play more with the sibling. Similarly, Turkish immigrant children were expected to spend less time in solitary play than German children since they were more likely to have others such as relatives, grandparents or siblings around than German children. However, the two cultural groups were not expected to differ in use of positive parenting behaviors. Literature indicates the existence of warmth in traditional Turkish family although it is restrictive in terms of expecting children to be obedient (Kağıtçıbaşı, 1970, 1996). Similarly, due to the child-centered parenting orientation, German mothers were also expected to show high levels of acceptance and affection to their young children.

As it is mentioned in the beginning of this section, parenting patterns of Turkish immigrant families were expected to be less cognitively stimulating than German families. Therefore, children in these two cultural groups were expected to differ in terms of their cognitive skills. In relation to this, it was posited that performance of Turkish immigrant children in cognitive tasks would be lower than German children.

3.4 Comparison of Girls and Boys

Literature reviewed in earlier chapters shows that research on gender differences in cognitive skills such as memory and categorization revealed no significant differences between girls and boys. But, research on language abilities usually reports an advantage in favor of girls. Hence, it was expected that girls would score higher on body-related vocabulary section, as this section measures children's body-related vocabulary.

3.5 Summary

This chapter draws on the previously reviewed findings to establish the aims and predictions of the present study. Hypotheses are posited for the total sample, as well as the German and Turkish samples separately. Measures used to assess predictor and outcome variables and techniques used to analyze the proposed hypotheses are described in the following chapters (Chapters 4 and 5).

Chapter 4

METHOD

4.1 Overview of Chapter

This chapter presents information on the design and methodology of the study. First, it gives a description of characteristics of the participants. Next, the materials (i.e., scales and tests) used to measure children's cognitive skills and parenting variables are described. The last section includes details of the procedure, preparation of Turkish versions of the measures, recruitment of participants and the assessment phase.

4.2 Descriptive Characteristics of Participants

The original sample comprised of 81 Turkish immigrant and 84 German preschool children and their mothers living in lower socioeconomic suburbs of Bochum and Herne in Ruhr region of Germany. As Turkish immigrants are known to be one of the lowest-educated and lowest-income earner groups in Germany (Abdan-Unat, 2002), German children were also recruited from lower socioeconomic backgrounds in order to make the groups comparable. Despite that, German children in the original sample were found to be coming from more advantageous circumstances than children in the Turkish group, as evident in significant differences in mothers' years of schooling, $t(165) = -5.589$, $p < .001$. This

difference between Turkish immigrant and German groups in terms of mother's education made it impossible to compare the groups reliably, as mother's years of schooling has consistently been found to be the most important predictor of parenting practices (Gottfried, Fleming & Gorrfried; 2000), and in turn, child cognitive outcomes (Linver, Brooks-Gunn & Kohen, 2002; Smith, Brooks-Gunn, & Klebanov, 1997). In order to overcome the problem of incomparability, Turkish and German samples were matched in terms of amount of schooling. As the largest number of mothers in Turkish (n = 52, 64%) and German (n = 65, 75%) groups received 10 to 12 years of schooling, data from children of mothers who have education less than 10 years and more than 12 years were excluded. Therefore, the final sample included 52 Turkish immigrant and 65 German children.

1) Turkish sample: Both parents of children in this group came from a Turkish background. In the Turkish sample, 21 mothers (40.49%) were born in Germany and 31 (59.6 %) were born in Turkey. Among Turkey-born mothers, 16 mothers (51.6 %) migrated to Germany at an age younger than 10, 13 mothers (41.9 %) came to Germany at ages between 10 and 20, and only 2 of them (6.5 %) arrived in German at an age older than 20. For fathers, 11 of them (22 %) were born in Germany, 38 (76 %) in Turkey and one father (2 %) was born in a place other than Germany and Turkey. Among Turkey-born fathers, 9 fathers (24.3 %) were younger than 10 at the age of immigration, 10 fathers (24.3 %) were at an age between 10 and 20 when they migrated, and 18 fathers (51.4%) came to Germany at an age older than 20.

2) German sample: Children in this group came from a German background. Children were included in the German sample only if both mother and grandmother of the child were born in Germany. Therefore, all mothers in the German sample were born in Germany. Among

fathers, 60 (96.7 %) were born in Germany and 2 fathers (3.3 %) were born in a place other than Germany.

A mean age of the total sample was 45.89 months (*SD* = 4.07), the youngest being 36.60 months old and oldest 57 months old. The German group included 30 girls (*M* = 46.02, *SD* = 3.96) and 35 boys (*M* = 46.11, *SD* = 3.49); and the Turkish sample included 25 girls (*M* = 45.28, *SD* = 4.66) and 27 boys (*M* = 46.03, *SD* = 4.47). These children were assessed for their cognitive skills, more specifically for their memory, strategies, categorization and body-related vocabulary skills as described below.

Questionnaire data were obtained from mothers of 117 children. In terms of family composition, 53 % of children were first born and 47% were later born children; 85.5% came from intact families, 3.4% of mothers were married but not living with their husbands, 4.3 % were single, 6 % were divorced and 0.9 % were widowed. Descriptive statistics for demographic data for the German and Turkish samples are presented in Table 4.1. Although the two cultural groups were matched in terms of mother's years of schooling, it was found that German fathers had higher levels of education than those in the Turkish group, as evident in significant differences in fathers' years of schooling $t(105) = -1.73$, $p < .01$. (see Table 4.1). Descriptive statistics further showed that German mothers were significantly older than the Turkish mothers, $t(115) = -3.39$, $p < .05$.

Table 4.1

Descriptive Statistics for Demographic Data

	German (n = 65)					Turkish (n = 52)				
Variable	*M*	*SD*	Min	Max	Skew	*M*	*SD*	Min	Max	Skew
Age of child (months)	46.07	3.69	39.7	55.4	0.38	45.67	4.54	36.6	57.0	0.16
Number of Children in Family	1.69	0.77	1.0	4.0	0.76	2.21	0.85	1.0	4.0	0.60
*Age of mother (years)	33.23	5.46	22.0	46.0	0.09	30.06	4.42	22.0	43.0	0.45
*Mother's years of schooling	10.39	0.78	10.0	12.0	0.70	10.49	0.75	10.0	12.0	0.91
*Father's years of schooling	10.73	1.21	9.0	13.0	0.47	10.06	2.69	5.0	16.0	0.25

4.3 Materials

Two types of instruments were used for the evaluation of predictors and outcome measures in this study. These were a parenting questionnaire and time budget inventory which were completed by the child's mother, and a standardized development test that was individually administered for the assessment of children's cognitive skills. The development test provides separate scores for four different cognitive skills, namely memory, ability to use strategies, categorization and body-related vocabulary, and also gives a composite score representing child's overall performance in the test. The parent measures and the developmental test are described in the following sections and a copy of the parent measures are given in the Appendices.

4.3.1 Parent Measures

The mother of the child was interviewed to fill in a background information form and a questionnaire assessing parenting practices and mothers were also requested to fill out an inventory which assesses structuring of children's daily activities. The questionnaires and the inventory completed by the mother are described below.

4.3.1.1 Background Information Form

The background information form (see Appendix A) provided information about the child (e.g., date of birth, sex, presence of siblings, birth order, previous and present child care type and hours) and parents' background (e.g., age, country of birth, ethnicity, age of immigration, reason for immigration, education, type of professional training, average work hours, marital status, religion). Education of mother and father was rated according to the highest level achieved (1 represented 'No educational degree completed' and 8 represented 'Completed high school'). Parents' total number of years in school was also asked.

In the background information form, there was also a special section which aimed to examine the level of literacy experiences provided to child at home. In this section, there were 5 items which were rated on a scale. These items asked about mother's own and husbands' reading habits with items such as "How often do you read?", "How often does your partner read?", "How often is the library card used if the family has one?". "How often does someone read to the child?" and "How many picture-books does the child have?" were

also asked. These items revealed high internal consistency with a Cronbach's alpha of .71. The total score obtained in this section were used as the indicator of home literacy environment.

4.3.1.2 Parenting Practices

To measure parenting behaviors, mothers completed a modified version of the Alabama Parenting Questionnaire (APQ; Shelton, Frick & Wooton, 1996) which is originally a 42-item parent report questionnaire where the parent indicates the frequency of each behavior on a 5-point scale, where 1 describes "Never" and 5 indicates "Always".

The original APQ gives information about the five dimensions of parenting behavior: parental monitoring and supervision (e.g., "You get so busy that you forget where your child is and what he/she is doing"), inconsistent punishment (e.g., "The punishment you give your child depends on your mood"), corporal punishment (e.g., "You spank your child with your hand"), positive parenting (e.g., "You praise your child when she does something well"), involvement (e.g., "You ask your child about his/her day at school") and other discipline practices that involve planned ignoring, time-out, contingent reward and taking privileges away.

Dadds, Maujen and Fraser (2003) provided psychometric analysis of this measure with an Australian sample of 802 4- to 9-year-old children and their parents. Correlations between the subscales were computed to examine the test of convergent and divergent validities of the constructs. Generally, the negative subscales (inconsistent discipline, poor

monitoring/supervision, and corporal punishment) significantly negatively correlated at a significant level with subscales of involvement and positive parenting. Test-retest reliability across a two-week period was high with r = .84 for monitoring/supervision, r =.88 for inconsistent discipline, r =.90 for corporal punishment, r = .85 for positive parenting, and r = .87 for involvement.

All subscales of the questionnaire have also been found to have an acceptable internal consistency with Cronbach's alpha of .59 for parental monitoring/supervision, 73 for inconsistent discipline, .55 for corporal punishment, 77 for positive parenting techniques, and .75 for parental involvement (Dadds et al., 2003). Internal consistency scores obtained for the German version of the questionnaire were even higher. For a German parents sample of 180 elementary school children, Reichle and Franiek (2006) reports Cronbach's alpha of .69 for poor monitoring/ supervision, .78 for inconsistent discipline, .67 for corporal punishment, 82 for positive parenting, and .77 for involvement.

Since the original APQ was developed to measure parenting practices for children at ages between 6 and 13, some of the items in the questionnaire (e.g., "Your child is out with friends you do not know", "Your child stays out in the evening past the time he/she is supposed to be home") was not applicable for preschoolers. Therefore, these non-applicable items were excluded in this study. The item "You hit your child with a belt, switch, or other object when he/she has done something wrong" was also excluded from the scale as it could irritate mothers and negatively affect their approach to the questionnaire. Besides these attritions, three new items have been added to the questionnaire in order to measure 'time management' dimension of parenting. Observations in Germany point to the differences

between Turkish immigrant and German groups in terms of parents' control of child's daily activity schedule. Therefore, examining this aspect of parenting would provide useful information on Turkish and German parents' behaviors. With an aim to measure 'time management' 3 more items were added to the scale: "Is the sleep time of your child fixed?", "Is there a time schedule for tv watching for your child?", "Are the meal times fixed in your family?". The final version of the APQ as used in this study consisted of 32 items (see Appendix B). In the present study, the internal consistency scores for Involvement, Positive parenting, Inconsistent discipline, Corporal punishment, Other discipline practices and Time management were .56, .63, .64, .58, and .47, respectively for the total sample (see Appendix C for alpha coefficients for the Turkish and German samples separately). The poor monitoring/supervision subscale consisted of only two items after attrition of those that were not applicable for preschoolers. Hence, internal consistency score for the subscale was found to be very low (Cronbach's α = .01). Therefore, this subscale was not used in this study.

4.3.1.3 Structuring of Child's Daily Activities

To assess daily activities and social experiences of the child, mothers completed the Time Budget Inventory (TBI; Leyendecker, Lamb, Schölmerich, & Fracasso, 1995) for a weekday and a weekend day (see Appendix D). TBI forms were given to the mothers after the interview for the other parent measures was completed, and the mothers were instructed by the researcher about how to fill out the inventory. Detailed written instructions were also

given together with the forms to ensure that the inventory was completed correctly (see Appendix E).

In the TBI forms, mothers were asked to reconstruct the 24 hour of both a weekday and a weekend day in as much detail as possible. For practical purposes, pictorial illustrations of most frequent daily activities such as eating, sleeping, playing and taking a bath were given in the forms, but mothers were also expected to report all other activities that the child did during the day. In addition to the report of daily activities, mothers also reported the presence of other people in the same room with the child and whether the TV/DVD was on during the child's activities.

Through completion of the TBI forms, information about the activities child participated in as a part of his/her daily routine, the time length the child engaged in these various activities throughout the day, how these activities were structured and with whom the child interacted was obtained. Mothers' report of activities were coded as '1' representing eating, '2' waking up/getting up, '3' sitting in the car, '4' play by herself/himself, '5' dressing/getting dressed, '6' playing/interacting with someone else, '7' watching TV/DVD, '8' asleep, '9' bathroom activities, '10' taking a bath, '11' helping adults, '12' on a walk outside, '13' eat and watch Tv/Dvd, '14' play and watch TV, '15' someone reads book to the child, '16' riding a bicycle, '17' in kindergarten, '18' recreational activity with an adult, '19' relaxing and '20' going to parents' bed or cuddling. With the use of TBI, child's daily experiences could be evaluated in terms of the degree to which cognitively stimulating activities such as 'an adult reading to the child' or 'parent-child dyadic play interaction' existed in the child's daily routines.

4.4.1 Child Measures

The cognitive skills subtest of a standardized test battery was used to measure children's memory, strategies, categorization and body-related vocabulary skills. This measure is described below.

4.4.1.1 Children's Cognitive Skills

Entwicklungtest 6-6 (ET 6-6; Petermann, Stein, & Macha, 2004) was used in this study to measure children's cognitive skills. The ET 6-6 is a standardized test battery prepared for children under 6 years of age to assess their motor, cognitive, social, emotional, and language development. The standardization study for the battery was done by Petermann and Stein (2000) with a total of 950 children from cities of Bremen, Dortmund and Rostock in Germany.

On the basis of the test rating and child's chronological age, ET 6-6 gives a developmental quotient for each subtest and a developmental profile could be drawn for each subject. A score is also provided for each subsection of subtests (gross motor/fine motor skills scores for motor development subtest, memory/ strategies/ categorization/ body-related vocabulary scores for cognitive development subtest, expressive/ receptive language skills scores for language development subtest).

In this study, the cognitive subtest of ET 6-6 was used which consisted of four subsections: memory, strategies, categorization and body-related vocabulary. These

subsections consisted of several tasks which were acted out with toys and several different materials (e.g., pictures, paper-pencil, and boxes). Children's performance in each task was scored as '1' or '0' depending on whether the child completed the task successfully or not. Together with tasks administered to the child, in the strategies subsection, two mother report items were also used to assess child's skills (see Section 4.4.1.3). A detailed description of the tasks of each subsection is given below.

4.4.1.2 Memory

This subsection measures children's audio recognition, visual recognition and recall abilities by administration of three separate tasks. For visual recognition, the child was first presented by the pictures of a banana, an airplane and a cat. Then, the researcher picked up these pictures from the desk and presented a set of six pictures that include a bicycle, cookie, horse and the previously shown banana, airplane and cat. The presentation of these pictures was such that a new picture was followed by a previously shown picture. Then, the child was asked to point to the pictures that she/he saw initially. If the child recognized all of the three pictures presented previously, his/her performance was scored as '1'. Recognition of one or two items were scored as '0'.

In the audio recognition, five little boxes were used, two of which produce the same voice while others produce different voices when shaken by hand. First, the researcher shook four different-voice producing boxes one by one and put them down in front of the child while keeping one of the same-voice-producing boxes still on the desk. Shaking order of the

boxes was such that there were two different-voice producing boxes between the two same-voice producing boxes. After shaking each of the four boxes was completed, the researcher picked up the same-voice-producing box that was kept still aside and shook it once, and asked the child which one of the four boxes produced the voice similar to that one. If child could find the same-voice-producing box among the four boxes ordered in the desk, the child's performance was scored as '1' representing successful completion of the task.

In the visual recall task, the child was first presented with the pictures of a car, a dog and a carrot. The child was requested to name the objects in the pictures to make sure that she/he knows their names correctly. Then, the researcher took these pictures away and waited for 5 seconds, and asked the child to name the three pictures that were previously presented to her/him. In this task, recall of one or two items were again considered to be a failure and scored as '0'. Only the performance of those children who recalled all three pictures were scored as '1'.

4.4.1.3 Strategies

This section consists of a total of eleven tasks, nine of which were performance tasks administered to the child during the test and two of which were questions asked to the mother regarding the child's ability on specific topics. Scoring was again such as '1' or '0' based on children's succussful completion of the task or failure.

The first task requested the child to build a tower by using blocks after the researcher had shown how to do it once. Similarly, in the second and third tasks, the child was expected

to form a pyramid and a stair with the blocks. Only after the child completed the task same as the way that researcher did, he/she received '1'.

For the latter two tasks; 3-piece and 6-piece three dimensional puzzles were used which constitute a turtle's back when completed correctly. The same procedure was followed for these tasks as well: the researcher made the puzzle first while the child was watching and then, broke it apart and requested the child to do it by herself/himself. To be scored as '1', child again had to fully complete the task. For instance, positioning four out of six puzzle pieces correctly were scored as '0'.

The other two tasks measured the child's ability to understand visual perspective. In the first perspective task, the researcher presented a picture of a cow upside down and asked the children whether it was upright or upside down. In the second perspective task, a half-blue half-red ball was used. Researcher first showed the ball to the child and made sure that child understood that there were two halves of the ball with different colors. After that, the researcher put the ball on the desk such that the whole red half was on the child's side and the whole blue half was on researcher's own side, and asked the child which color the researcher saw. If the child said that the researcher sees the blue part, his/her performance was scored as '1'.

In another task of this subsection, the researcher asked the child why people do not pass across the street when the traffic light is red. Any plausible reason that the child gave for this question was scored as '1'. For example, if the child responded as 'A car could bump into him/her' or 'It is cars' turn to pass the road', his/her performance was scored as '1' as these responses indicate that the child knows the function of traffic lights.

There were also two mother-report items in ‘strategies’ subsection. In the first item, mothers were asked if their child could make recognizable objects such as house, airplane or car by using lego-type toys. In the second mother-report item, mothers were asked whether or not their child frequently produces question sentences including the words of ‘why’, ‘where’ and ‘when’. Similar to scoring of tasks administered to the child, mother-report items were also scored as ‘1’ or ‘0’ respectively, corresponding to mother’s response as ‘yes’ or ‘no’.

4.4.1.4 Categorization

In this subsection, children’s categorization skills were measured by various tasks. First task of this section asked the child the gender of himself/herself and the opposite-sex parent. If the child named the sex of both himself/herself and the opposite sex parent correctly, his/her performance was scored as ‘1’. In another task, twelve pictures of different objects were used. These pictures, taken together, created four categories (food, animals, flowers, and vehicles) each of which involved three pictures. The researcher first presented all twelve pictures in a mixed order and then asked the child to group them according to their categories. In order to be scored as ‘1’, the child had to create all four categories with three correct pictures in each.

The next task in this subsection was to match the pictures of eight objects which were functionally related. These functionally related objects were a chair and a table, toothpaste and a toothbrush, an ironing board and an iron and, a hammer and a nail. In this task, the researcher first presented all eight pictures in a mixed order on the table, and then picked up

one of them and pointing to the rest on the table, asked the child 'Which one is related to this (the one that the researcher holds)?'. To be scored as '1', the child again had to correctly find the match of all eight objects.

In the following three tasks, children were presented with six balls and six blocks of different sizes and colors, and then their ability to categorize these objects according to dimensions (shape, size and color) was evaluated. For example, in the easiest task, the child was asked to give any ball to the researcher among these twelve objects including both balls and blocks with different colors and sizes. In the most difficult task, the child was expected to consider several aspects (color, size, shape) of an object at the same time: the child was asked to give the big blue ball. If the child could give the big blue ball, his/her performance was scored as '1'. Child's knowledge of colors and shapes was also tested in categorization subsection. In the knowledge of colors task, children are presented with blocks with different colors (red, blue, green, yellow, white, black, purple, pink) one by one and asked to name the color of the object. If the child had known the name of all colors, his/her performance was scored as '1'. Similarly, in knowledge of shapes task, children are presented with the picture of a square, a triangle and a circle one by one and then, asked to name the object. In order to be scored as '1', the child had to know the name of all three shapes.

4.4.1.5 Body-related vocabulary

In the first task of this subsection, the child was required to draw a man. After the child had drawn the picture, the drawing was evaluated if body parts were located correctly.

In the first evaluation, it was checked to see whether the picture the child drew consisted of a head, a body, legs and arms. It if it so, the child's performance was scored as '1'. In the second evaluation, the parts of face were controlled to see whether there were two eyes, a nose and a mouth in the face. If all these parts are placed correctly in the picture, the child received '1'. However, this task was not administered to children who were at ages between 36 and 42 months since they were considered to be too young to draw a man. In this subsection, children's ability to name and show body parts was also measured. In the first set; the researcher showed her eyes, ears, nose, mouth, leg, arm, hand and abdomen and asked the child to name them. In the following set, body parts which were expected to be more difficult for children to know such as elbow, ankle, toes, chin and knee were asked. If the child named all these parts correctly, he/she received '1' from these tasks. This subsection also measured if the child knows both his/her own and other's right and left side who was in opposite of the child.

As mentioned above through the explanation of tasks, child's performance on each cognitive skills task (memory, strategies, categorization and body-related vocabulary) was scored as "1" if the child successfully completed the task and as "0" if the child failed in the task. Children are given as much time as they needed to complete the tasks and their self-correction were counted as correct responses. The scores for each subsection were computed by taking the ratio of the number of items the child completed appropriately to the total number of items in this subsection. Regardless of which subsection the items belonged to, the ratio of number of items completed successfully in the whole test to the total number of items

administered was also calculated. This total score indicated children's overall cognitive performance in the test.

4.5 Procedure

This section describes how the present study was conducted. First, information for translation of the materials is given; then, the recruitment procedure of the participants, and the administration of the measures are described.

4.5.1 Translation of Materials

The Alabama Parenting Questionnaire was translated into Turkish and German by bilingual researchers from its English original and was checked by other psychology researchers to ensure that the items in the new versions tap the very same behavior as the original items. The background information form and ET 6-6 were originally in German. These measures were again translated into Turkish by bilingual researchers.

4.5.2 Recruitment

As it is mentioned earlier in Section 4.2, Turks form one of the lowest educated and lowest income earner groups in Germany. Therefore, with the aim to match both cultural groups in terms of SES, both Turkish and German children and their mothers were recruited from kindergartens in the cities of Bochum and Herne that are known to be very low in

socioeconomic development. These cities were also preferred for convenience purposes as a large population of Turkish immigrants reside in this area.

Fourty-eight kindergartens in these low SES cities which serve to both German and Turkish children were reached. Directors of the kindergartens were contacted in person and asked for cooperation in recruitment of participants. If they agreed to participate, directors were also requested to provide a quiet room which is appropriate for testing of the children. Contact information of the mothers was taken from the kindergartens and consent letters were sent to parents. In these letters, parents were told about the details of the study and asked for assistance by participating (see Appendix F for a copy of the consent letter). For children whose parents gave consent, an appointment for the testing was arranged with the collaboration of the kindergarten. The mothers who are present during the test day are asked for help to reach other parents who would like to participate in the study. This strategy for recruitment was useful especially among the Turkish group. As Turkish immigrant families see each other frequently, they are likely to inform each other about the study. Each kindergarten is paid a total of 75 Euros and the parents are paid 25 Euros for their participation in the study.

4.5.3 Administration of the Test

As mentioned in the previous section, appointments were made with the directors for assessment of children in the kindergartens. Before the testing started, teachers in the kindergarten and mothers, if they were present, were informed about the test once again. All

children were tested in a separate and quiet room in the kindergarten which had a small table and two chairs. Mothers were allowed to be present in the testing room during the session if they wanted to but were warned to be quiet and not to intervene. While most of the Turkish mothers preferred to watch the session in the testing room, very few of the German mothers participated in the session. Among mothers who preferred to participate in the session, none of them caused a serious problem which hindered proper testing of the child.

Before administration of the test, the researcher talked to the child about his/her family and school and played with the child as a brief warm-up period. Teachers and mothers of Turkish children were asked in which language the child felt more comfortable in terms of comprehension and expression. The child was also asked for his/her preference in language right before the session started. If the child showed any sign of difficulty in understanding the language spoken during the session, instructions were repeated in the other language to make sure that the child had a correct understanding of the instructions.

4.5.4 Administration of the Questionnaires

Those mothers who agreed to participate were contacted by phone by an ethnically matched (German or Turkish) female researcher and an appointment was made for the interview. Rather than sending the questionnaires to mothers to fill in them by themselves, data were collected from the mothers through an interview. Since the mothers in the sample were low-educated, it was thought that they might find it difficult to understand and to fill in the questionnaires by themselves. Use of the interview method made it possible to explain the

items to the mothers when necessary and made sure that the questionnaires were completed correctly.

For the interviews, the mothers were told that they could be interviewed at home or in the kindergarten, and they were free to choose to interview in the language they felt more comfortable with. Depending on mother's choice, a bilingual or a native Turkish speaker researcher interviewed with the mother. The researcher who interviewed with the mother was not necessarily to be the one who administered the test to the child.

In the interview, the researcher first gave the instructions about how to fill in the forms. Then, the interviewer read the items one by one to the mother and filled in the questionnaires on the basis of mother's responses. After the interview was completed, the interviewer gave the time budget inventory to the mother and explained how it had to be filled in. Mothers were also told that they could call the interviewer whenever they had a question about filling the inventory. In the last page of the inventory, mothers' bank account numbers were asked in order to make the payment. Mothers were informed that they would be paid after they completed and sent back the inventories to Psychology department of Ruhr University where the researchers work. Together with the inventories, a paid reply envelope was also provided for returning the completed inventories.

Chapter 5

RESULTS

5.1. Overview of Chapter

This chapter presents data and results of the statistical analyses that were performed to test the relations hypothesized in the study. It begins with a description of the procedures applied to form composite scores from individual measures, and is followed by findings from data screening (e.g., missing cases, normality, outliers and multicollinearity). In the subsequent sections, cultural group differences are elaborated and bivariate correlations between variables are reported for the total, German and Turkish samples separately. Then within-culture and between-culture gender differences are investigated. In the fifth section, results of structural equation modeling analysis which was used to test the model proposed to predict children's cognitive functioning from familial variables are reported. Major findings reported in the text are accompanied by tables and figures which summarize relevant statistical analyses. The tables for peripheral or detailed results are presented in the Appendices.

5.2. Computation of Composite Scores

Total time scores for children's daily activities at home were computed from Time Budget Inventory (TBI; Leyendecker et al., 1995). A composite score indicating children's overall performance in ET 6-6 (Petermann et al., 2004) was also computed from scores obtained from sections of ET 6-6. Steps taken to form the new variables are described in the following sections.

5.2.1 Children's Daily Activities

The TBI (Leyendecker et al., 1995) gives time length of several daily activities that child participated in during a day such as taking a bath, riding a bicycle or getting dressed. However, the interest of this study was in daily activities which might be related to children's development of cognitive skills. In this respect, total time scores for daily parent-child dyadic interaction, children's solitary play, play with the sibling, family interaction which indicates the time spent with all family members together, total time of daily TV/DVD watching and being red by an adult were computed from TBI reports. In order to compute total time scores for daily activities, minute based time lengths were added to each other for those activities which were reported to be done several times a day. For example, if the child played with her/his mother two times a day; once in the morning and once after school, durations of parent-child dyadic play at these two times were added to each other to calculate the total time score.

5.2.2 Overall Cognitive Performance

As explained in Section 4.4.1, children's cognitive skills in each cognitive domain (memory, strategies, categorization and body-related vocabulary) were assessed by multiple tasks in ET 6-6. The scores for each domain were calculated as the ratio of number of tasks child achieved to the total number of tasks given to the child in the subsection. As mentioned earlier (see Section 4.4.1.4), some tasks (e.g., drawing a man) were not administered to younger children since the requirements of these tasks were considered to be too difficult to complete for young children. Hence, the scores for these children were calculated on the basis of fewer tasks. As total score calculation was based on the ratio of tasks achieved to the total number of tasks given, unequal task numbers among different age groups were not a problem.

Besides giving the scores for each cognitive domain, ET 6-6 also provides a composite score which represents children's overall cognitive performance in the test by taking the children's performance in these four different domains into account. Review of the literature on the relationship between parenting variables and children's cognitive skills indicates that the influence of general parenting patterns on child cognitive outcomes is similar across different domains of cognition, especially when school-related cognitive skills such as problem solving, categorization skills and vocabulary knowledge are considered (Estrada et al, 1987; Landry & Smith, 2001; NICHD, 1999; Tamis-LeMonda et al., 2001). In this respect, while children's scores in individual cognitive domains were examined to elucidate the differences between cultural groups in cognitive skills, the composite score obtained from children's performance in memory, strategies,

categorization and body-related vocabulary tasks was used to investigate the association between child-rearing behaviors and children's cognitive development in this study.

5.3 Preliminary Analyses

Before analysis, data were screened using SPSS. Family predictors (i.e., parenting practices, daily structuring of children's activities, and maternal education), and child outcomes (memory, strategies, categorization, body-related vocabulary skills, and overall cognitive performance) were examined in terms of missing values, normality distributions, outliers and multicollinearity with the use of appropriate statistics and charts (e.g., histograms with normality curves and plots). In the following section, values for missing cases, skewness and kurtosis measures are presented for the total sample. Decisions about the transformation of variables which displayed non-normal distribution are further discussed in the subsequent sections. This is followed by the results for outliers, multicollinearity and singularity.

5.3.1 Examination of Missing Cases and Normality Values

Means, standard deviations, skewness and kurtosis values for parenting practices, structuring of daily activities for the German and Turkish samples are presented in Table 5.1. Statistical distribution values for child measures (i.e., memory, strategy, categorization, body-related vocabulary skills and overall cognitive performance) are presented in Table 5.2.

5.3.1.1 Parenting Practices

The 32-item Parenting Practices Questionnaire (Shelton et al., 1996) displayed no missing values. Involvement behaviors (skewness = -.39, kurtosis = .26), and inconsistent discipline (skewness = .20, kurtosis = -.18) and other discipline practices (skewness = .33, kurtosis = .37) for the total sample were close to normally distributed. Responses to positive parenting (skewness = -1.22, kurtosis = 1.03) and time management were moderately negatively skewed (skewness = -81, kurtosis = .19) and corporal punishmnet was positively skewed (skewness = 1.42, kurtosis = 1.32). Adequate normality was not achieved when square root or logarithm methods were applied to the latter three scales. Hence, no transformations were used (Tabachnick & Fidell, 1996).

Table 5.1

Means, Standard Deviations and Normality Values for Parenting Variables

	German (*n* = 65)				Turkish (*n* = 52)			
	M	*SD*	*Skewness*	*Kurtosis*	*M*	*SD*	*Skewness*	*Kurtosis*
Parenting Practices (1-5 Scale)								
Involvement	4.02	0.40	0.39	0.04	3.85	0.41	0.50	-0.43
Positive parenting	4.59	0.42	-1.07	0.60	4.54	0.52	-1.27	1.06
Corporal punishment	1.35	0.43	1.82	3.95	1.69	0.58	1.07	1.49
Inconsistent discipline	2.18	0.60	0.40	0.77	2.60	0.72	-0.20	-0.33
Other discipline practices	2.36	0.45	-0.13	-0.85	2.67	0.69	0.08	0.09
Time management	4.08	0.82	-0.64	-0.75	3.77	1.03	-0.78	0.23
Daily Activities (in minutes)								
Parent-child dyadic interaction	39.33	36.49	1.08	0.89	12.49	8.85	1.32	1.58
Family interaction	65.98	44.89	0.22	-0.72	61.74	43.80	0.41	-0.69
Play with the sibling	19.68	18.25	1.57	3.54	50.10	41.17	0.22	-0.95
Solitary play	66.09	49.85	0.95	0.57	48.59	33.15	1.26	1.38
Reading to the child	19.70	14.79	0.48	-0.33	12.25	8.04	0.62	-0.92
Tv watching	53.12	44.90	0.99	0.57	102.29	62.18	0.15	-1.02

Table 5.2

Means, Standard Deviations and Normality Values for Child Measures

	German (*n* = 65)				Turkish (*n* = 52)			
	M	*SD*	*Skewness*	*Kurtosis*	*M*	*SD*	*Skewness*	*Kurtosis*
Cognitive skills								
Memory	6.82	3.02	-0.35	-1.15	5.44	3.55	-0.14	-1.27
Strategies	7.59	1.85	-0.66	-0.15	6.54	1.77	0.18	-0.79
Categorization	7.61	1.75	-1.45	1.23	6.38	2.30	-0.23	0.88
Body-related vocabulary	5.04	2.57	-0.14	-0.53	2.70	2 .03	-0.33	-0.53
Overall cognitive performance	7.08	1.53	-1.14	1.29	5.65	1.65	0.26	-0.72

5.3.1.2 Structuring of Daily Activities

Structuring of children's daily activities was assessed through the time budget inventory (Leyendecker et al., 1995) filled by mothers of children for a weekday and a weekend day. The inventories that were filled and sent back by the mothers were checked for missing values. In some of the inventories, there were time periods for which no activity was reported. For these missing values, mothers were called by phone and asked to give again the report of the day for which the inventory was filled. Mothers' report given on the phone about the activity was coded into the forms accordingly. Therefore, there were no missing values for activities reported in inventories.

It usually took 3 to 4 weeks from mothers to complete the inventory and send it back. Therefore, inventories of mothers who were interviewed in the last phase of data collection could not be received by the time data analyses in the present study had begun. In total, complete time budget inventories were available for 41 German and 31 Turkish

mothers could fill and send back the inventories until the time of data analyses. For the missing cases, the multiple imputation procedure was performed. This procedure is based on estimating values for the missing variables using regression in which all observed variables are taken as predictor variables, and is the most conservative method of dealing with the missing data (Tabachnick & Fidell, 1996).

As explained in Section 5.2.1., time scores for children's dyadic and multiparty interactions, playing, tv watching and reading by an adult was calculated from the time budget inventories. Normality values for these scores for German and Turkish samples are presented in Table 5.1. This shows that parent-child dyadic interaction for the Turkish sample (skewness = 1.32, kurtosis = 1.58) and play with the sibling scores for the German sample (skewness = 1.57, kurtosis = 3.54) displayed the most significant deviations from a normal distribution. Square root and logarithm transformations were applied to these skewed daily activities variables. However, transformations did not pull the values to normal ranges, and were not used.

5.3.1.3 Cognitive Skills

Children's cognitive skills were assessed through memory, strategies, categorization and body-related vocabulary subsections of ET 6-6 (Petermann et al., 2004). There were no missing values per task. Normality values for each subsection and the composite score for the two cultural groups are presented in Table 5.2. This shows that categorization skills (skewness = -1.45, kurtosis = 1.23) for the German sample displayed

the most significant deviations from a normal distribution. However, transformation methods did not appear to be helpful (i.e., decreased skewness but increased kurtosis); so, the non-transformed cognitive skills values were used in the analyses.

5.3.2 Decisions regarding Transformation of Variables

These findings indicated that while some of the parenting variables and child measures had a close-to-normal distribution, others displayed more significant deviations from acceptable values of normality. For those variables that were not normally distributed, it was suggested to apply transformation methods and use the most appropriate transformed variable in the analyses (Tabachnick & Fidell, 1996). However, as described in Section 5.3.1, even after square root and algorithm transformations were applied, optimal distribution values could not be achieved. Applying a square root transformation mostly improved skewness but increased kurtosis (e.g., for categorization skills). Similarly, logarithm transformations did not result in normal distribution. For example, it changed the direction of distribution for 'play with the sibling' score. According to Tabachnick and Fidell (1996), transformation of variables does not bring any advantage in these conditions. Transformations can also make it more difficult to interpret the findings because they change the indicators of central tendency (e.g., from mean to median). Therefore, it was decided to keep all the variables in their original form.

5.3.3 Examination of Outliers and Multicollinearity

All variables were examined individually for detection of outliers. Univariate detection of outliers was done by examining the cases which exceeded ±2.5 standardised variable values. All variables (except memory, strategies and inconsistent discipline) had some extreme values which exceeded ±2.5 value but only six cases exceeded the more conservative standardized score of ±3.29, and only on one variable (i.e., TV/DVD watching). Therefore, it was decided to retain these observations as they were considered to be representative of the population from which they were derived.

The correlations between children's memory, strategies, categorization and body-related vocabulary skills for the total, German and Turkish samples are given in Table 5.3. (Both significant and non-significant correlations are presented in Appendix G Table G1.) None of the correlations between scores obtained in cognitive domains was high enough to cause multicollinearity.

SPSS Pearson's *r* was performed to assess the bivariate correlations among all variables for the total, German and Turkish samples. Table 5.4 gives the significant Pearson product moment correlations for children's age, overall cognitive performance, children's daily activities, parenting practices and home literacy environment. (Both significant and non-significant correlations are presented in Appendix H Table H1.) Mothers' involvement and positive parenting practices showed highest correlation for the total sample. For the German sample, maternal involvement and time management displayed a high correlation, and total time of play with the sibling and tv watching had

significant association for the Turkish sample. Children's age displayed the highest correlation with total time of family interaction for the German sample. However, none of these associations were above .7, hence were not of concern for multicollinearity.

Table 5.3

Significant Pearson Product-Moment Correlations among Cognitive Skills

	Total Sample (N = 117)			
Variable	Child's age	1	2	3
1 Memory	.21*			
2 Strategies		.46**		
3 Categorization	.43**	.46**	.65**	
4 Body-related vocabulary	.30**	.32**	.47**	.35**
	German Sample (n = 65)			
Variable	Child's age	1	2	3
1 Memory				
2 Strategies		.43**		
3 Categorization	.28*	.38**	.54**	
4 Body-related vocabulary	.43**	.26**	.38**	.26**
	Turkish sample (n = 52)			
Variable	Child's age	1	2	3
1 Memory	.29*			
2 Strategies		.43**		
3 Categorization		.48**	.53**	
4 Body-related vocabulary		.28**	.45**	.28**

Note. Non-significant results in the correlation matrix are not reported
*p < .05. **p < .01.

Table 5.4
Significant Pearson Product-Moment Correlations among Overall Cognitive Performance and Parenting

		Total Sample (N = 117)													
		Age	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Overall cognitive performance	.22*													
2	Parent-child dyadic interaction														
3	Solitary Play			.32**											
4	Family interaction				-.28**										
5	Play with the sibling		.20**	-.28**	-.20*										
6	Tv watching		-.24*				.55**								
7	Reading to the child														
8	Involvement		.27**				-20*		.17*						
9	Positive Parenting					.19*				.36**					
10	Inconsistent discipline									-.27**					
11	Corporal Punishment		-.21*				.24**	.24**	-.26**						
12	Time management		.18*			.20*	-.30*	-.30*		.25**					
13	Other discipline Practices												.29**		
14	Home literacy environment		.50**	.32**			-.20*	-.30*	.22**	.27**		-.18*	-.25**	.2 3*	

		German Sample (n = 65)													
		Age	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Overall cognitive performance	.30*													
2	Parent-child dyadic interaction														
3	Solitary Play		-.53*	. 03*											
4	Family interaction	.40**	.39**		-.36**										
5	Play with the sibling														
6	Tv watching						.31*								
7	Reading to the child														
8	Involvement														
9	Positive Parenting									.37**					
10	Inconsistent discipline														
11	Corporal Punishment				.32**										
12	Time management									. 27*					
13	Other discipline Practices						-.30*								
14	Home literacy environment		.43**		-.25*										

		Turkish Sample (n = 52)													
		Age	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Overall cognitive performance														
2	Parent-child dyadic interaction														
3	Solitary Play			.28*											
4	Family interaction														
5	Play with the sibling														
6	Tv watching						.55**								
7	Reading to the child														
8	Involvement		.34*												
9	Positive Parenting								-.36**	.34*					
10	Inconsistent discipline														
11	Corporal Punishment														
12	Time management						-.30*	-30*							
13	Other discipline Practices							-40*							
14	Home literacy environment		.34*												

Note. Non-significant results in the correlation matrix are not reported
*p < .05. **p < .01.

5.4. Cultural Differences

In this section, results of analyses comparing German and Turkish groups on parenting practices, structuring of daily activities and cognitive skills are reported. To control for Type I error, MANOVA analyses were performed. However, in the case of unequal sample/cell size the power of MANOVA analysis decreases (Tabachnick & Fidell, 1996). Therefore, *t*-tests were also carried out to assess the statistical significance of differences between the groups. In the following sections, MANOVA results are reported and *t*-test results are given in Appendices.

5.4.1 Parenting Variables

MANOVA showed a significant overall difference in parenting practices of Turkish and German samples (see Table 5.5). German mothers reported significantly higher levels of involvement. The difference between the groups in time management dimension of parenting was also marginally significant. German mothers reported higher levels of control on children's daily schedule than Turkish mothers. Although both groups reported using low levels of corporal punishment, this disciplining strategy was displayed significantly more by Turkish mothers. Turkish mothers also reported using higher levels of inconsistent discipline and other disciplining practices than German mothers. However, both groups 'always' displayed positive parenting practices and the difference between them was not significant.

When the home literacy environment was examined, significant differences between the two cultural groups were also obtained $t(117) = -5.88$, $p < .001$. German mothers reported significantly higher levels of newspaper reading, more frequent use of library, reading to the child, and higher number of picture-book provided to the child.

Table 5.5

MANOVA Results for Parenting Practices for German (n = 65) and Turkish (n = 52) Samples

	MANOVA			
Variable	*Df*	*F*	*P*	η^2
Parenting Practices	6	5.21	< .001	0.22
Involvement	1	5.25	< .05	0.04
Positive Parenting	1	0.36	ns	0.00
Inconsistent discipline	1	11.60	< .001	0.09
Corporal punishment	1	12.38	< .001	0.10
Time management	1	3.34	= .06	0.03
Other Discipline Practices	1	8.68	< .05	0.07

MANOVA results showed also a significant overall difference between Turkish and German samples in terms of structuring of children's daily activities (see Table 5.6). While Turkish children were reported to spend only 12.23 minutes on average a day in parent-child dyadic interaction, German children engaged in parent-child dyadic interaction 3 times more than this amount, and this difference between the groups was found to be significant. The two cultural groups significantly differed also in the duration of reading to the child. Total time for reading was significantly longer in German families than it was for the Turkish group. On the other hand, Turkish children were reported to play with sibling(s) for a significantly longer time than German children. With regard to tv exposure, significantly higher levels of tv watching was reported for Turkish children.

However, Turkish and German children did not differ in the total time of 'solitary play' and 'family interaction with all members present'.

Univariate *t*-tests results were consistent with MANOVA findings, with slight variations in significance levels (see Appendix I Table I1).

Table 5.6

MANOVA Results for Daily Activities for German (n = 65) and Turkish (n = 52) Samples

	MANOVA			
Variable	*Df*	*F*	*P*	η^2
Daily Activities	6	11.20	< .001	0.38
Parent-child dyadic interaction	1	23.16	< .001	0.17
Solitary play	1	3.39	ns	0.03
Family interaction	1	0.26	ns	0.00
Play with the sibling	1	20.98	< .001	0.15
Tv watching	1	24.52	< .001	0.18
Reading to the child	1	8.92	< .01	0.07

5.4.2 Cognitive Skills

As described in Section 5.2.2, an overall cognitive performance score was composed from scores for the four cognitive domains (i.e., memory, strategies, categorization, and body-related vocabulary). Although the 'composite cognitive score' was examined in relation to parenting variables in further analyses, cultural differences in cognitive performance was one of the major interests in this study. Therefore, Turkish and German children were compared not only on the overall cognitive performance but also on the individual scores obtained for the different domains.

In order to examine how the performances of the two cultural groups differed in individual cognitive domains, MANOVA was used. MANOVA results showed that Turkish children had significantly lower scores in memory, strategies, categorization, and body-related vocabulary sections (see Table 5.7). MANOVA results also revealed a significant overall difference between the groups in cognitive performance. In order to confirm this finding, a *t*-test which examines the difference between Turkish and German children in composite cognitive performance score was performed. Consistently with MANOVA, *t*-test result also showed that Turkish children had significantly lower overall cognitive performance score in the test than the German children $t(117) = -4.83$, $p<.001$.

Table 5.7

MANOVA Results for Cognitive Skills for German (n = 65) and Turkish (n = 52) Samples

	MANOVA			
Variable	*Df*	*F*	*P*	η^2
Cognitive Skills	4	7.89	< .001	0.22
Memory	1	5.07	< .05	0.04
Strategies	1	9.76	< .001	0.08
Categorization	1	10.79	< .001	0.09
Body-related vocabulary	1	28.62	< .001	0.20

5.5 Gender Differences

Gender differences in child measures (i.e., memory, strategies, categorization and body-related vocabulary skills) and parenting variables (i.e., maternal involvement, positive parenting, use of corporal punishment, inconsistent discipline, other discipline

practices, time management, home literacy environment and structuring of daily activities) were investigated both for the total sample and within cultural groups. A series of *t*-tests were carried out to assess the statistical differences between boys and girls. Again MANOVA analyses were also performed to control for Type I error (Tabachnick & Fidell, 1996).

The total sample consisted of 62 boys and 55 girls. The performances of boys and girls did not differ in memory, strategies and categorization tasks but, girls had significantly higher body-related vocabulary scores than boys (see Table 5.8). The two sex groups did not significantly differ on age $t(117) = -.51$, *ns*, and home literacy environment $t(117) = -.46$, *ns*. There was also no significant difference between boys and girls in terms of parenting practices (see Table 5.9). Total time of parent-child dyadic interaction, play with the sibling, reading to the child and tv watching did not differ significantly by sex, as well. On the other hand, boys had significantly higher total time score in solitary play and girls were reported spending marginally significantly longer time in family interaction (see Table 5.10).

Table 5.8

MANOVA Results for Gender Differences in Cognitive Skills for the Total Sample (N = 117)

	MANOVA			
Variable	*df*	*F*	*P*	η^2
Cognitive Skills	4	1.68	ns	0.05
Memory	1	0.42	ns	0.00
Strategies	1	0.58	ns	0.00
Categorization	1	0.14	ns	0.00
Body-related vocabulary	1	6.51	< .05	0.06

Table 5.9

MANOVA Results for Gender Differences in Parenting Practices for the Total Sample (N = 117)

	MANOVA			
Variable	*df*	*F*	*P*	η^2
Parenting Practices	6	0.62	ns	0.03
Involvement	1	0.27	ns	0.00
Positive Parenting	1	0.61	ns	0.00
Inconsistent discipline	1	0.23	ns	0.00
Corporal punishment	1	0.01	ns	0.00
Time management	1	0.05	ns	0.00
Other Discipline Practices	1	1.77	ns	0.02

Table 5.10

MANOVA Results for Gender Differences in Daily Activities for the Total Sample (N = 117)

	MANOVA			
Variable	*df*	*F*	*P*	η^2
Daily Activities	6	1.70	ns	0.00
Parent-child dyadic interaction	1	0.32	ns	0.00
Solitary play	1	4.08	< .05	0.04
Family interaction	1	3.47	= .06	0.03
Play with the sibling	1	1.24	ns	0.01
Tv watching	1	0.14	ns	0.00
Reading to the child	1	0.94	ns	0.00

There were 35 boys and 30 girls within the German sample. Gender differences in children's cognitive skills displayed the similar pattern to the total sample. Only in body-related vocabulary, girls performed significantly better than boys (see Table 5.11). Similar to the total and Turkish samples, there were no significant differences in child age $t(65) = -$

.09, *ns*, and home literacy environment, $t(65) = .12$, *ns*. There were also no significant differences between boys and girls in parenting practices (see Table 5.12). In terms of daily activities, the differences between girls and boys in solitary play were marginally non-significant. Boys were found to be spending longer time in solitary play, consistently with the total sample. In contrast to the Turkish sample, girls were reported to watch tv relatively longer time than boys (see Table 5.13).

Table 5.11

MANOVA Results for Gender Differences in Cognitive Skills for the German Sample (n = 65)

	MANOVA			
Variable	*Df*	*F*	*P*	η^2
Cognitive Skills	4	2.72	< .05	0.15
Memory	1	0.50	ns	0.01
Strategies	1	0.02	ns	0.00
Categorization	1	0.92	ns	0.01
Body-related vocabulary	1	9.19	< .01	0.12

Table 5.12

MANOVA Results for Gender Differences in Parenting Practices for the German Sample (n = 65)

	MANOVA			
Variable	*Df*	*F*	*P*	η^2
Parenting Practices	6	0.59	ns	0.05
Involvement	1	0.12	ns	0.00
Positive Parenting	1	0.88	ns	0.01
Inconsistent discipline	1	0.22	ns	0.00
Corporal punishment	1	0.39	ns	0.00
Time management	1	1.20	ns	0.01
Other Discipline Practices	1	0.66	ns	0.01

Table 5.13

MANOVA Results for Gender Differences in Daily Activities for the German Sample (n = 65)

	MANOVA			
Variable	*Df*	*F*	*P*	η^2
Daily Activities	6	1.67	ns	0.14
Parent-child dyadic interaction	1	0.14	ns	0.00
Solitary play	1	3.44	=.07	0.05
Family interaction	1	2.57	ns	0.03
Play with the sibling	1	0.99	ns	0.02
Tv watching	1	3.13	=.08	0.04
Reading to the child	1	0.22	ns	0.00

The Turkish sample was composed of 27 boys and 25 girls. In terms of cognitive skills, no significant difference was found between Turkish boys and girls (see Table 5.14). Similar to total and German samples, the two sex groups did not significantly differ on child age, $t(52) = -.59$, *ns*; home literacy environment, $t(52) = -.73$, *ns*; and parenting practices (see Table 5.15). Contrary to the total and German samples, there were significant differences between boys and girls in total time of parent-child dyadic interaction, play with the sibling and reading to the child. Boys had significantly higher total time scores in these activities than girls. Total time of daily tv watching was also significantly higher for Turkish boys in contrast to the German sample (see Table 5.16).

Univariate *t*-tests results for gender differences were consistent with MANOVA findings, with slight variations in significance levels (see Appendix J for means, standard deviations and *t*-test results for the total, German and Turkish samples).

Table 5.14

MANOVA Results for Gender Differences in Cognitive Skills for the Turkish Sample (n= 52)

	MANOVA			
Variable	*df*	*F*	*P*	η^2
Cognitive Skills	4	0.60	ns	0.04
Memory	1	0.08	ns	0.02
Strategies	1	1.24	ns	0.02
Categorization	1	0.04	ns	0.00
Body-related vocabulary	1	0.90	ns	0.02

Table 5.15

MANOVA Results for Gender Differences in Parenting Practices for the Turkish Sample (n= 52)

	MANOVA			
Variable	*df*	*F*	*P*	η^2
Parenting Practices	6	1.40	ns	0.15
Involvement	1	1.20	ns	0.02
Positive Parenting	1	0.05	ns	0.01
Inconsistent discipline	1	1.52	ns	0.03
Corporal punishment	1	0.10	ns	0.00
Time management	1	0.50	ns	0.01
Other Discipline Practices	1	1.38	ns	0.02

Table 5.16

MANOVA Results for Gender Differences in Daily Activities for the Turkish Sample (n= 52)

	MANOVA			
Variable	*df*	*F*	*P*	η^2
Daily Activities	6	3.04	< .05	0.28
Parent-child dyadic interaction	1	4.70	< .05	0.08
Solitary play	1	0.83	ns	0.01
Family interaction	1	0.99	ns	0.02
Play with the sibling	1	7.02	< .05	0.12
Tv watching	1	4.58	< .05	0.08
Reading to the child	1	4.59	< .05	0.09

5.6 Associations between Predictor and Outcome Variables

The relationships between child age, parenting practices, home literacy environment, children's daily activities and children's overall cognitive performance score was examined through bivariate correlations, and presented in Table 5.4. These associations are described in detail further in Section 5.6.1 and 5.6.2 below.

5.6.1 Correlations between Parenting Predictors

This section describes the degree of association between parenting variables (i.e. parenting practices, home literacy environment, and children's daily activities) for the total, German and Turkish immigrant samples, respectively

5.6.1.1 Correlations for the total sample

Among the parenting practices, maternal involvement was strongly and positively correlated with positive parenting practices and time management, and negatively correlated with use of inconsistent discipline. This implies that mother's willingness to get involved in child's school matters such as volunteering to special activities held in kindergarten, asking the child how his/her day in school was or how his/her friends were doing occur together with provision of warmth and acceptance to the child by using positive parenting practices such as praising child when she/he did something well or hugging and kissing. As maternal involvement with the child increases, parental control on children's daily schedule also increase. Involved mothers tended to predetermine the time of meals, tv watching and sleeping for their children. As expected, significant correlations were also found between negative aspects of parenting practices. Using corporal punishment displayed a positive association with the use of other disciplining practices. That is, mothers who used physical punishment also used other disciplining strategies such as time-out, planned ignoring and loss of privileges.

When correlations between total times of daily interactions were examined, as expected, it was found that children's solitary play was negatively related to 'family interaction with all members present' and 'play with the sibling'. In other words, children who spent longer time with siblings and other family members were less likely to play alone. On the other hand, total time of parent-child dyadic interaction was positively related to the duration of children's solitary play but negatively related to the total time of

play with the sibling. It was also found that tv watching was positively associated with 'play with the sibling', meaning that those children who watched tv for longer time also spent more time playing with their siblings. The only daily activity which showed significant association with the child's age was 'total time of family interaction with all members present'. As child's age increase, total time spent with all family members together increased.

In terms of association between parenting practices and structuring of children's daily activities, as predicted, it was found that mothers who reported higher levels of involvement read to their children more. It was also found that maternal involvement was negatively related to the total time of playing with the sibling. Unexpectedly, there was a marginally non-significant negative relationship between use of positive parenting practices and reading to the child, $r = -.15$, $p = .09$ for the total sample. Those mothers who used praise more and provided more affection tended read less to their children. On the other hand, use of positive parenting practices displayed a positive relationship with total time of family interaction. This implies that children who spent more time together with family members tended to receive higher levels of positive parenting. With regard to time management dimension of parenting, as expected, it was found that children with mothers who had more control on their children's daily schedule tended to watch tv less during the day. It was also found that mothers who reported higher levels of time management provided more time to their child to spend with all family members together. Use of corporal punishment also displayed a significant link with duration of some daily

activities, as the use of corporal punishment increased, total time of tv watching and play with the sibling also increased but reading to the child decreased.

When the correlation of home literacy environment with parenting variables were examined, it was found that, as expected, the provision of literacy experience to the child at home was positively linked with maternal involvement, time management, and the total time of parent-child dyadic interaction. On the other hand, literacy experiences provided to the child at home were negatively related to use of corporal punishment, inconsistent discipline, total time of daily tv watching and play with the sibling. These findings imply that parenting practices which were previously shown to facilitate children's development are more likely to occur together.

5.6.1.2 Correlations for the German Sample

There were somewhat fewer significant correlations for the German sample than for the total sample, due to in part to the smaller sample size (see Table 5.4). In contrast to the total sample, mothers who were more involved with their children did not report using significantly less inconsistent discipline. 'Sibling play' was not linked significantly to total time of tv watching and 'solitary play' for the German sample. In terms of associations between parenting practices and daily activities, use of positive parenting practices showed a positive relationship with total time of tv watching, and a significant negative relationship was found between play with the sibling and use of other discipline practices, inconsistently with the total and Turkish samples. It was also found that solitary play had a

significant positive link with corporal punishment and total time of tv watching, which was not the case for the total and Turkish samples. It was also notable that home literacy environment displayed a positive relation with maternal involvement only and a negative relation with solitary play.

5.6.1.3 Correlations for the Turkish Sample

Fewer parenting predictors for the Turkish sample were significantly related to each other, again presumably in part due to smaller sample size (see Table 5.4). As with the total and German samples, maternal involvement was positively related to use of positive parenting practices, but the association of maternal involvement with time management was non-significant, $r = .18$, *ns*. It was notable that parent-child dyadic interaction was positively related to solitary play and positive parenting was negatively related to reading to the child for the Turkish sample. There was also a marginally significant negative relation between positive parenting and play with the sibling, $r = -.24$, $p = .08$, and a significant negative relation between use of other disciplining practices and tv watching, which were not significant for the total and German samples.

5.6.2 Correlation with the Overall Cognitive Performance

Child's age and parenting predictors were examined in terms of their correlations with the child's overall cognitive performance (see Table 5.4). For the total sample,

overall cognitive performance was positively associated with child age. Children of mothers who were more involved and who had more control on schedule of children's daily activities performed better in the cognitive tasks in general. However, cognitive performance of children with mothers who used higher levels of corporal punishment was lower. There was also a significant positive relationship between home literacy environment and the overall cognitive performance. In terms of association between total time of daily activities and cognitive skills, it was found that children who played with their sibling more display better cognitive performance. It was also found that as total time of daily tv watching increased, children's cognitive performance decreased.

For the German sample, overall cognitive performance revealed positive association with home literacy environment as for the total sample, but the relations between parenting practices and children's cognitive performance score was non-significant. Also, total cognitive score was positively linked to the total time of family interaction and negatively to children's solitary play, in contrast to the total sample where no significant association was found between these variables.

Similar to the total sample, maternal involvement and home literacy environment displayed a positive significant association with cognitive performance, for the Turkish sample. Total cognitive score was not significantly associated with other parenting variables or the child's age.

5.7 Structural Equation Modeling

One of the major interests of this study was to investigate the role of parenting on children's cognitive skills. With this aim, Structural Equation Modeling (SEM) was used in this study. SEM examines a set of complex relationships among variables by including unobserved variables in the model. SEM also allows the researcher to test the model for different groups in order to estimate group differences in relations between variables.

In SEM, the term 'exogenous' and 'endogenous' are used to describe functions of the variables in the model. While an exogenous variable predicts, but is not predicted by other variables in the model; an endogenous variable is the dependent variable which is predicted from at least one other variable in the model (Tabachnick & Fidell, 1996). SEM represents the relations between variables by a path diagram which is constructed on the basis of a 'theory'. However, model building processes used in SEM also allow making modifications in the initial theoretical model. This procedure consequently helps explaining the phenomenon better on the basis of the present data.

SEM analyses rely on comparing the population (estimated) covariance matrix and the sample (observed) covariance matrix. The difference between the two matrices reveals the adequacy of the path model. In SEM, the difference between estimated and observed matrices is generally assessed by chi-square statistics. If the chi-square value is non-significant, this shows that the difference between the two matrices is small thus; there is a good fit between the model and the data (Tabachnick & Fidell, 1996). To compute parameter estimates, SEM employs different approaches such as the maximum likelihood

(ML), generalized least squares (GLS) and ordinary least square (OLS) methods. Among these methods, maximum likelihood estimation is the most consistent and efficient one (Tabachnick & Fidell, 1996). However, this method is sensitive to sample size and normality of the data. As the distribution of data deviates from normality, χ^2 gets larger and the chance of rejecting the model increases (Tabachnick & Fidell, 1996). Bootstraping is a method which is useful where normality assumptions are not met, and provides a less biased estimate compared to the standard ML procedure. It is a resampling technique which works through generating multiple subsamples of the original sample. The distribution of these multiple subsamples comprises the bootstrap distribution (Tabachnick & Fidell, 1996). Due to non-normality of the data in this study, bootstraping was also used when needed, together with regular ML to test the models.

In addition to chi-square test, the ratio of chi-square to the degrees of freedom (CMIN/DF) is also frequently used as a measure of model fit. It is assumed that a value of CMIN/DF lower than 2 shows a good fit. However, this measure is still based on chi-square statistics and depends on the same assumptions. Therefore, comparative fit index (CFI) might be a good alternative as a measure of model fit. CFI is helpful when the sample size is small. A CFI value greater than .90 shows a good fit between the model and the data (Tabachnick & Fidell, 1996). Another reliable measure of model fit is the root mean square error of approximation (RMSEA). For this measure, a value less than .05 shows a good fit and a narrow 90% confidence interval suggests that the RMSEA value has good precision in reflecting model fit.

In the present study, SEM using AMOS was performed to simultaneously examine the relationships among parenting practices and children's cognitive functioning, and to test the proposed model for Turkish immigrant and German samples separately. Figure 1 shows the path diagram of the initial theoretical model representing hypothesized relationships among variables. The initial model is composed of 3 exogenous observed variables and 1 endogenous unobserved (latent) variable.

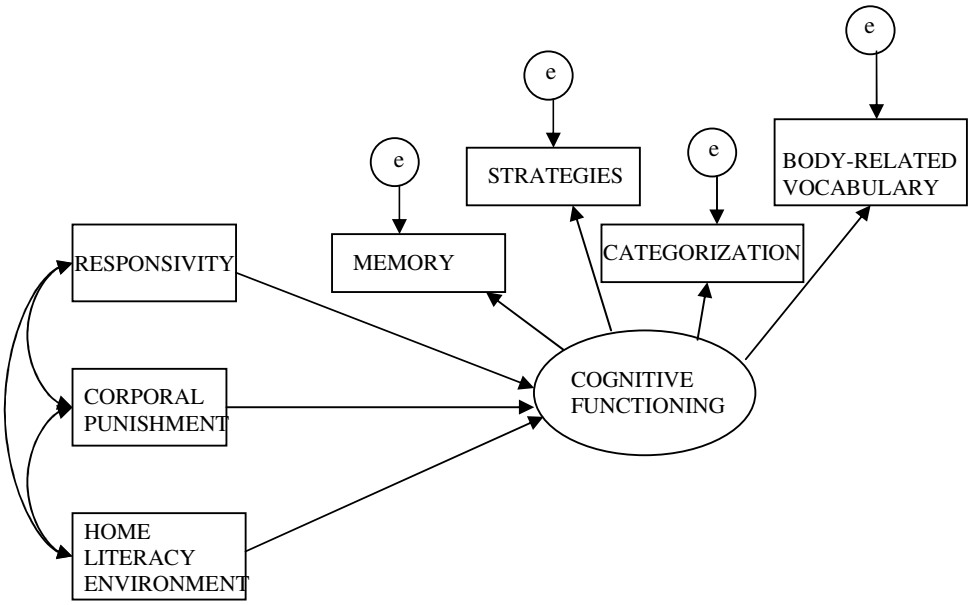

Figure 1. The first model tested for the Turkish immigrant (n = 52) and German samples (n = 65) for predicting cognitive functioning from parenting predictors.

SEM was performed on data from 117 children with no missing data. Chi-square values were examined, and no cases were detected as multivariate outliers. As the proposed model includes a latent variable (cognitive functioning), the measurement model is also examined here. Measurement models are used when there are multiple indicators of

the same latent concept. In this study, children's scores in memory, strategies, categorization and body-related vocabulary tasks were hypothesized to be reflecting children's overall cognitive functioning (see Figure 1). Therefore, SEM analyses has begun with the measurement model to test whether the hypothesis that a latent variable 'cognitive functioning' can be estimated by observed scores of children in different cognitive tasks is correct. As there are Turkish immigrant and German samples in the study, nationality was also used as a grouping variable in the model testing.

Together with the predictor variables, SEM also includes an error term for each endogenous variable which represents any part of that variable which is not measured in the study. Therefore, in the measurement model, each one of the cognitive scores included an error term. Besides that, in order to estimate relative weights of observed variables on the latent concept, it is needed to fix one of the path coefficients to 1. In this study, the path coefficient from cognitive functioning to body-related vocabulary score was fixed to 1. It was also necessary to equalize the groups in terms of regression weights of different cognitive scores on overall cognitive functioning because it was assumed that the performance in cognitive tasks is related to overall cognitive functioning in the same way for both groups. After these restrictions were done, the regular ML chi-square test of model fit showed that the model reasonably fitted the data with a χ^2 (7, N = 119) = 3.92, p = .07. Alternative fit indices also revealed a well-fitting model; with a CFI of .98, an RMSEA of .00 (90% CI = .00 - .07). A summary of regression weight estimates and significance values for the Turkish immigrant and German groups are presented in Table 5.17.

Table 5.17

Regular ML Estimates of Regression Weights for the Measurement Model for German and Turkish Immigrant Samples

	German (n = 65)		
	ML		
Path	Standardised Estimate	Unstandardised Estimate	S.E.
Memory ⟵ Cognitive functioning	0.45	1.40**	0.50
Strategies ⟵ Cognitive functioning	0.80	1.26**	0.41
Categorization ⟵ Cognitive functioning	0.65	0.97**	0.32
Body-related vocabulary ⟵ Cognitive functioning	0.55	1.00	

	Turkish (n = 52)		
	ML		
Path	Standardised Estimate	Unstandardized Estimate	S.E.
Memory ⟵ Cognitive functioning	0.60	2.11**	0.76
Strategies ⟵ Cognitive functioning	0.76	1.33**	0.49
Categorization ⟵ Cognitive functioning	0.69	1.57**	0.53
Body-related vocabulary ⟵ Cognitive functioning	0.50	1.00	

*$p < .05$. **$p < .01$.
Note. ⟵ indicates the influence of one variable on the other.

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After the measurement model confirmed the hypotheses that children's overall cognitive functioning underlies their scores in different cognitive tasks and the relationship between observed scores and the latent measure is the same for both groups, the theoretical model which predicts children' cognitive functioning by parenting variables was tested. To begin with a theory-driven approach, only parental responsivity, home literacy environment and corporal punishment were included in the first model as predictors of children's cognitive functioning (see Figure 1).

Home literacy environment and corporal punishment scores were already obtained from scales used in the study, but there was no score obtained from the scales which directly indicates the use of development-fostering parenting practices by mothers. To create such a variable, positive parenting practices and involvement subscales of Alabama parenting questionnaire were combined and new variable called 'responsivity' was obtained. This variable displayed a high internal consistency with Cronbach's alpha of .73, and was useful as it covered a wide range of parenting behaviors which are known to facilitate children's development. When the cultural difference in this new variable was examined, a marginally significant difference was found between the two cultural groups, with Turkish mothers displaying lower levels of responsivity $t(117) = -1.67$, $p = .08$.

In the model-testing, maternal responsivity and home literacy environment are hypothesized to contribute positively to children's cognitive functioning while use of corporal punishment is expected to negatively correlate with cognitive skills. After running this model, the regular ML-based chi-square value was first examined to assess overall fit of the model. The model chi-square was non-significant with $\chi^2 (25, N = 117) = 31.47$, $p = .174$, indicating a good fit. Other fit indices further revealed a good fit and all significant parameter estimates were in the expected direction in the first model, supporting the hypotheses.

Following the model building procedure, the parenting variables that were found to have significant correlations with overall cognitive performance for anyone of the Turkish immigrant and German groups were added to the model and tested one by one to see if addition of any variable resulted in better goodness of fit value. The variable which

displayed the highest correlation with overall cognitive performance score was added to the model first, followed by the variables that had the next highest correlation, in order. In accordance, solitary play was added in the second model. This model resulted in better goodness of fit value than the first model with χ^2 (31, N = 117) = 38.79, p = .158. In the third model, solitary play was retained and family interaction was added as it was the variable that had the second highest correlation with overall cognitive performance. Examination of chi-square value for the third model revealed that addition of family interaction further improves the goodness of fit to the data with χ^2 (37, N = 117) = 41.78, p = .271. In the next steps, tv watching, play with the sibling and time management were added once at a time and tested as the forth, fifth and sixth models, respectively but no additional variable resulted in better fit (see Table 5.18).

Table 5.18

Goodness of Fit Indices for the Models

	CMIN	DF	P	CMIN/DF	CFI	RMSEA	90% CI of RMSEA
Model 1	31.48	25	.17	1.26	.93	.05	.00-.09
Model 2	38.80	31	.16	1.25	.93	.04	.00-.08
Model 3	41.78	37	.27	1.129	.93	.03	.00-.07
Model 4	43.63	37	.21	1.179	.93	.03	.00-.08
Model 5	47.30	37	.12	1.276	.92	.04	.00-.08
Model 6	46.96	37	.13	1.269	.93	.05	.00-.09

These findings showed that the final model that gave the best fit to the data was the third model. Figures 2 and 3 give significant standardized estimates of the final model (i.e., the third model) for German and Turkish immigrant groups, respectively. (Both significant and non-significant estimates are presented in Appendix K Figure K1 and K2.)

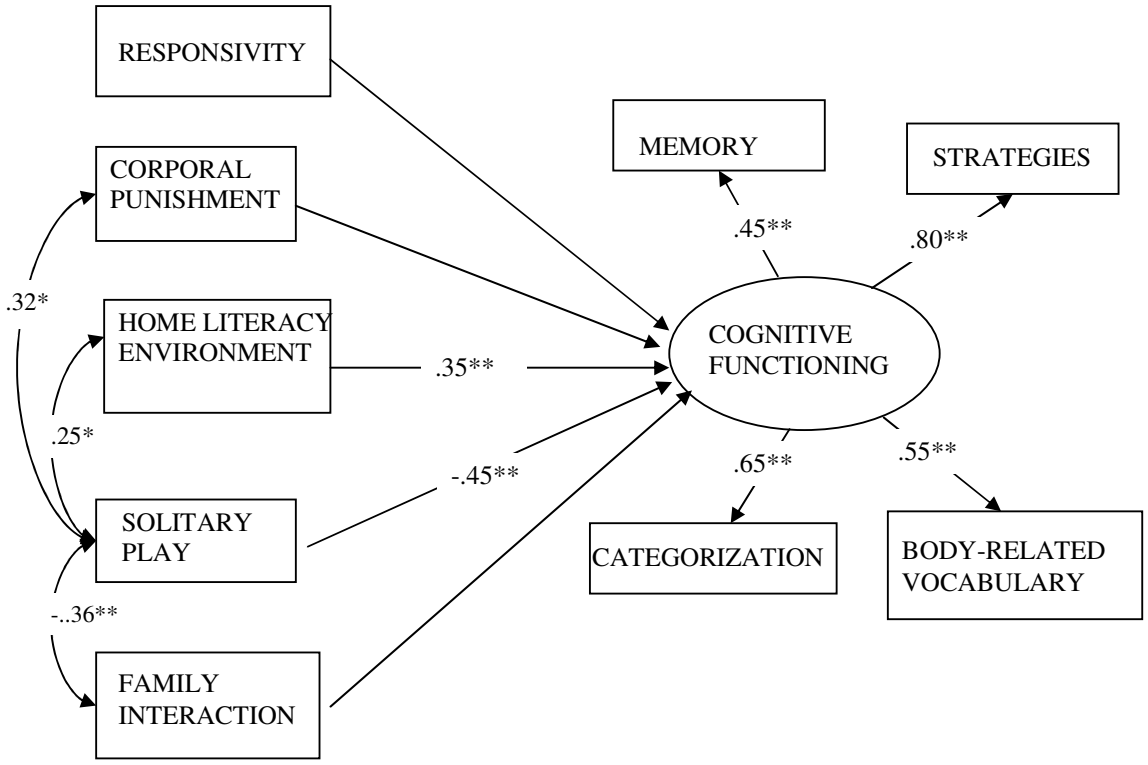

Figure 2. Significant standardized estimates for the German sample (n = 65).
**p < .01

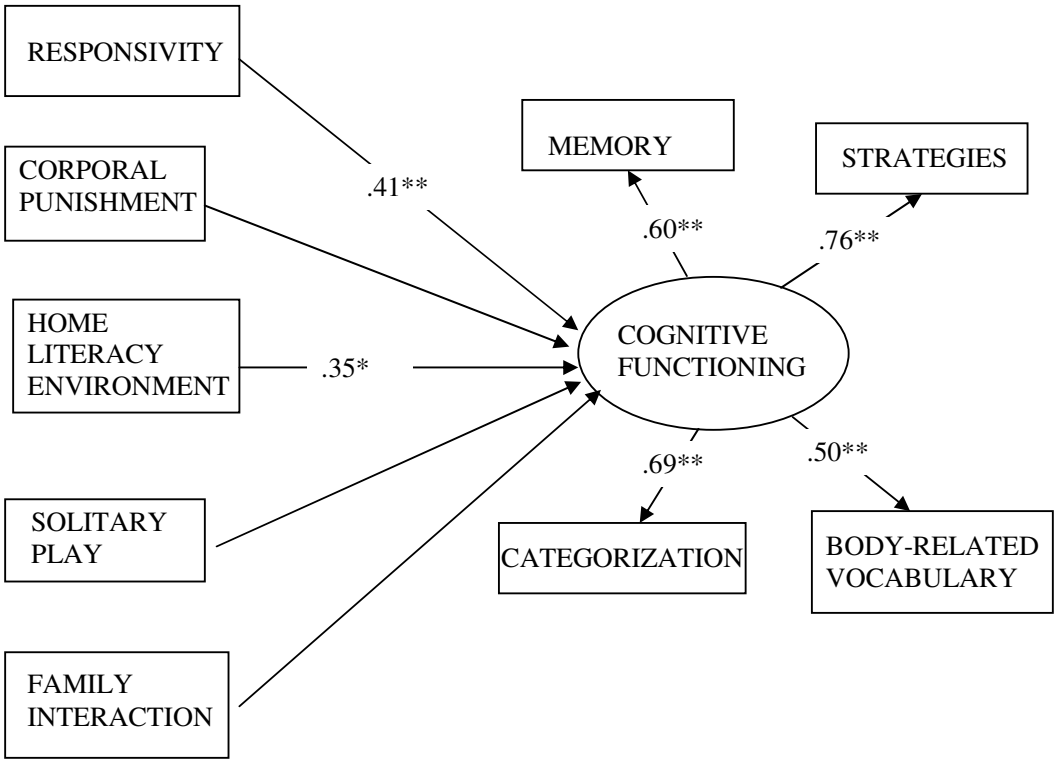

Figure 3. Significant standardized estimates for the Turkish sample (n = 52).
**p < .01

When the regression weights of final model were examined, it was found that all significant parameter estimates were in the expected direction (see Table 5.19). For the Turkish immigrant sample, the parenting variables that were found to significantly contribute to children's cognitive functioning were maternal responsivity and home literacy environment. The direction of effect revealed that an increase in maternal responsivity and home literacy experience leads to higher levels of cognitive functioning for Turkish immigrant children. On the other hand, total time of solitary play and home literacy environment was found to be significantly related to German children's cognitive functioning. Again, parameter estimates were in expected direction for the German sample as well. While the effect of home literacy environment on child cognitive outcomes was positive, solitary play had a negative influence on the cognitive functioning of German children. Standardized regression weights (see Table 5.19) also indicated that a 1-unit increase in literacy experience at home led to a 35 % increase in the child's overall cognitive performance both for the Turkish and German samples. It was also found that 41% increase in Turkish children's cognitive functioning was obtained by a 1-unit increase in maternal responsivity. On the other hand, a 1-unit increase in solitary play leads to 44 % decrease in German children's cognitive functioning.

Table 5.19
Regular ML Estimates of Regression Weights for the Final Model for German and Turkish Immigrant Samples

	German (n = 65)		
	ML		
Path	Standardised Estimate	Unstandardised Estimate	S.E.
Responsivity ⟵ Cognitive functioning	0.06	0.21	0.35
Literacy environment ⟵ Cognitive functioning	0.35	0.13**	0.05
Corporal punishment ⟵ Cognitive functioning	-0.03	-0.07	0.29
Solitary play ⟵ Cognitive functioning	-0.45	-0.01**	0.003
Family interaction ⟵ Cognitive functioning	0.20	0.01	0.003
	Turkish (n = 52)		
	ML		
	Standardised Estimate	Unstandardized Estimate	S.E.
Responsivity ⟵ Cognitive functioning	0.41	1.23**	0.47
Literacy environment ⟵ Cognitive functioning	0.35	0.13*	0.05
Corporal punishment ⟵ Cognitive functioning	0.11	0.21	0.27
Solitary play ⟵ Cognitive functioning	-0.02	0.01	0.003
Family interaction ⟵ Cognitive functioning	-0.21	-0.01	0.004

*$p < .05$. **$p < .01$.
Note. ⟵ indicates the influence of one variable on the other one.

The covariance and correlation matrices of the final model, as presented in Table 5.20, were also examined and these findings revealed that three covariance paths were statistically significant for the German sample. Total time of solitary play was strongly linked to home literacy environment, family interaction and use of corporal punishment. Children who played alone more were found to be less likely to have literacy experiences at home and to spend time in family interaction and these children were more likely to receive physical punishment. For the Turkish immigrant sample, no paths were found to have significant covariance values.

Table 5.20

Regular ML and Bootstrap ML Estimates for Correlations of the Final Model for Turkish Immigrant and German Samples

	German (n = 65)			
	ML	Bootstrap ML		
Path	Standardised Estimate	*M*	Standardised S.E.	Bias
Responsivity ⟺ Literacy environment	0.08	0.89	0.13	0.005
Responsivity ⟺ Corporal punishment	0.13	0.12	0.12	-0.009
Literacy environment ⟺ Corporal punishment	-0.04	-0.06	0.10	-0.014
Literacy environment ⟺ Solitary play	-0.25	-0.27*	0.11	-0.016
Corporal punishment ⟺ Solitary play	0.32	0.29*	0.12	-0.026
Responsivity ⟺ Solitary play	-0.01	-0.01	0.11	-0.002
Solitary play ⟺ Family interaction	-0.36	-0.35**	0.11	0.008
Literacy environment ⟺ Family interaction	0.21	0.21	0.11	0.002
Corporal punishment ⟺ Family interaction	-0.20	-0.21	0.09	-0.011
Responsivity ⟺ Family interaction	0.06	0.04	0.10	-0.015
	Turkish (n = 52)			
	ML	Bootstrap ML		
Path	Standardised Estimate	*M*	Standardised S.E.	Bias
Responsivity ⟺ Literacy environment	0.22	0.20	0.14	-0.021
Responsivity ⟺ Corporal punishment	-0.10	-0.11	0.12	-0.003
Literacy environment ⟺ Corporal punishment	-0.18	-0.18	0.11	0.002
Literacy environment ⟺ Solitary play	0.07	0.05	0.11	-0.015
Corporal punishment ⟺ Solitary play	0.00	0.03	0.16	0.031
Responsivity ⟺ Solitary play	0.04	0.04	0.11	0.002
Solitary play ⟺ Family interaction	-0.21	-0.21	0.10	0.002
Literacy environment ⟺ Family interaction	0.10	0.10	0.14	0.000
Corporal punishment ⟺ Family interaction	0.09	0.06	0.14	-0.030
Responsivity ⟺ Family interaction	0.16	0.14	0.15	-0.019

*p <.05. **p <.01.
Note. ⟺ indicates a two-way interaction between variables.

Chapter 6

DISCUSSION

6.1 Introduction

Children's cognitive development is largely influenced by the proximal environment in which they grow. Children's interactions with significant others in their proximal environments such as parents, siblings, peers and especially with mothers as the primary caretaker appears to be a most significant factor influencing development of cognitive skills in early childhood. Thus, the present study aimed to investigate how mother-child interactions indicated in parenting practices and structuring of children's daily activities relate to young children's cognitive skills. Examining the role of culture in parenting and its effect on the development of cognitive skills was also a major aim of this study. Revealing how parenting is related to children's development of cognitive skills in different cultures might shed light on why children from some cultures seem to be disadvantaged in terms of development of some early cognitive skills. For this purpose, children in German families were studied as well as children of Turkish parents living in Germany.

Mother-rated questionnaires and time-budget inventory filled by mothers were used to assess parenting variables, and children's cognitive performance was measured by a standardized test. Hypotheses of the study were formed on the basis of literature, and the

proposed relations were analyzed using multivariate statistics. Bivariate correlations were used to investigate the relations between parenting predictors. The effect of parenting variables on children's cognitive performance were examined separately for Turkish and German samples via structural equation modeling to identify the significant predictors in the two cultural groups.

As expected, there were differences between the German and Turkish samples in children's cognitive performance and parenting variables. For example, Turkish children displayed lower performance in memory, strategies, categorization and body-related vocabulary tasks and German mothers reported higher levels of involvement with the child than their Turkish counterparts. An interesting finding was that while maternal responsivity was a significant positive predictor of children's cognitive performance for the Turkish sample, it was not found to be significantly related to the performance of German children. This chapter seeks to discuss and interpret these results and other important findings of the study.

In the present chapter, the results obtained from the various analyses are evaluated with respect to the hypotheses of the study and findings in the literature. The chapter starts with discussion of the findings on the association between culture, gender, and cognitive skills in German and Turkish children. In subsequent sections, the roles of culture and gender are investigated with respect to parenting predictors. The relations among parenting variables were also elucidated in order to assist understanding the processes related to cognitive performance. In the next section, the findings obtained from structural equation modeling are interpreted to delineate the predictors of cognitive performance in

the two cultural groups. Finally, limitations of the present study and implications of its findings are considered, and suggestions for future research are presented.

6.2 Culture, Gender and Cognitive Skills

As mentioned in Chapter 2, previous studies have revealed significant differences in cognitive performance of majority and Turkish immigrant children living in Europe (Leseman & Boom, 1999). Consistent with these findings, Turkish children in this study, displayed lower performance than their German counterparts in cognitive tasks that measure memory, strategies, categorization and body-related vocabulary skills. The cumulative performance of Turkish immigrant children across these tasks was also lower than the German children. These findings were consistent with the prediction that there would be significant differences between cognitive skills of German and Turkish immigrant children, favoring Germans. This hypothesis was developed because it was considered that German children may have the advantages of receiving more development-fostering parenting which is supported by child-centered family functioning prevalent in the family model of independence (Kağıtçıbaşı, 1996), while Turkish immigrant children seem to be lacking environmental cognitive stimulation which is evident in less optimal parenting used by Turkish immigrant parents.

In terms of gender, there is no established finding for differences between boys and girls in cognitive skills such as memory and categorization. However, with regard to language skills, most of the studies (Bornstein & Haynes, 1998; Morisset, Barnard, &

Booth) indicate significant gender differences favoring girls. Therefore, based on previous findings regarding gender differences in cognitive skills, it was posited in this study that there would be no significant difference between girls and boys in memory, strategies and categorization task. On the other hand, it was expected that girls' score on body-related vocabulary tasks would be higher than boys since these tasks are considered to be measuring children's verbal skills. As expected, results showed that performance of boys and girls differed significantly only in body-related vocabulary tasks among all cognitive skills. Gender differences on body-related vocabulary tasks found for the total sample were also replicated for the German and Turkish groups separately.

As this study aimed to investigate children's overall cognitive performance, but not their specific cognitive skills, in relation to parenting practices; the relations between parenting and children's body-related vocabulary scores were not examined. However, the findings of the study regarding gender differences in total time of children's daily interactions might have implications for explanation of gender differences in verbal skills. In this study, it was found that boys spent longer time in solitary play than girls during a day in the total and German samples. It was also found that for the total sample, girls spent longer time in interaction with the family members during the day than boys. As boys spent longer time playing alone, it appears that they were less likely to engage in verbal interactions with others during the day. On the other hand, girls seemed to have the advantage of receiving more verbal stimulation from the environment since they engaged in interactions with others more. Therefore, it might be claimed that higher performance of girls in verbal tasks is related to the fact that they have more verbally stimulating

socialization experiences. In this sense, the results obtained from the total and German samples seem to be supporting the socialization explanation for gender differences in verbal skills (Reese, Haden & Fivush, 1996).

6.3 Culture, Gender and Parenting

Results of this study indicated significant differences between the German and Turkish mothers on some parenting predictors. All of the differences found were as hypothesized, although some expected differences did not emerge. As expected, the German mothers reported spending longer time in dyadic interaction with the child and being more involved with him/her than the Turkish mothers. These findings are consistent with previous literature (Kağıtçıbaşı, 1996) which explains the parenting pattern of independent family model as child-centered. In this context, mothers are more involved with their children and playing with the child is seen as a responsibility of the mothers. This seems to be the reason why total time of parent-child interaction is longer in the German sample. As expected, German mothers also provided more literacy experiences to their children than Turkish mothers. It might be suggested that provision of picture books and reading to the child during bedtime is part of cultural parenting practice in Germany, like in many other modernized societies. As the results of this study revealed, this holds true even for low-educated German mothers. However, reading to the child and buying newspapers regularly, which are in essence important means for providing literacy experiences at home, are very rarely seen in low-SES Turkish contexts.

On the other hand, Turkish mothers reported using higher levels of corporal punishment, inconsistent discipline and other disciplining strategies. These findings are congruent with previous reports (Kağıtçıbaşı, 1996) that mothers in the traditional Turkish setting are highly punitive as part of a power-assertive parental orientation in this context. In addition to this, as hypothesized, both cultural groups displayed high levels of positive parenting and there were no significant difference between the two cultural groups in use of positive parenting practices such as praising and hugging the child when he/she did something good. These findings are also consistent with previous literature (Kağıtçıbaşı, 1970) describing the traditional Turkish parenting as warm-restrictive where children receive affection and acceptance, although they are raised to be obedient. As items in positive parenting subscale mostly tap the warmth aspect of parenting, Turkish mothers' report of high levels of positive parenting was expected. Similarly, in the German context which represents the family model of independence, use of positive parenting practices such as praise and providing affection is considered to be an important and necessary aspect of parenting in early childhood (Kağıtçıbaşı, 1996). Thus, as predicted, German mothers were also found to be high on use of positive parenting practices.

With regard to structuring of children's daily experiences, the differences found were again in expected directions. Turkish children spent longer time in interaction with the siblings during the day than German children. This finding is partly due to higher number of children in Turkish immigrant families. However, the difference between Turkish and German children in total time of sibling play may also stem from different values of the two cultural groups about who the child should play with. In modernized,

individualist sociocultural contexts, parents may become playmates to the children but in traditional societies, children are mostly expected to play with their siblings or with their peers (Mistry, 1993; Rogoff & Mosier, 1993; Serpell, 1993). This might be the reason why Turkish immigrant children spend longer time in interaction with the siblings than German children. Low levels of parent-child dyadic interaction found in the Turkish immigrant group can also be explained by this cultural difference in values regarding child play.

As the number of children in Turkish immigrant families are found to be higher than the German sample, solitary play time was also expected to be lower for Turkish immigrant children. However, no significant difference was found between the two cultural groups in total time of solitary play. This finding reveals that children in both cultural groups spend some time of their day playing alone, and having more siblings around to interact with does not determine how long the child engages in solitary play during the day.

Consistent with the hypotheses proposed on the basis of observations in Germany, Turkish immigrant children were found to be watching tv during the day almost two times more than German children. Turkish mothers also reported lower levels of control on children's schedule of daily activities such as eating and sleeping. These findings together might be a confirmation of studies (Delagado-Gaiton & Trueba, 1991; Khounani, 2000) which describe parenting patterns in traditional and interdependent sociocultural contexts as permissive in early childhood.

Overall, these findings indicate that German and Turkish mothers display different patterns of child-rearing practices. Consistent with child-centered family functioning

prominent in the family model of independence (Kağıtçıbaşı, 1996), German mothers seem to be using parenting practices which are known to be fostering children's development more than Turkish mothers. This is especially evidenced in higher levels of involvement, parent-child dyadic interaction and literacy experience provided to the child in German families. On the other hand, as a result of a parent-centered orientation in the family model of interdependence (Kağıtçıbaşı, 1996), there seems to be no conscious effort to promote children's cognitive development in Turkish immigrant families such as reading to the child or playing with him/her. In addition to this, higher levels of corporal punishment and other non-inductive punishment practices displayed by the Turkish immigrant mothers seem to be another disadvantage of children.

Although no hypotheses were made with respect to gender differences, child gender was related to structuring of children's daily activities in the German and Turkish samples. While German boys engaged in solitary play significantly more, German girls were found to be spending longer time in family interaction. These differences between boys and girls may stem from gender-role socialization which seems to exist in both individualist and collectivist societies. In general, girls are expected to be more sociable than boys. Therefore, German girls might be socialized to spend more time in interaction with family members while boys are allowed to spend more time by playing alone in German families.

Similarly, significant gender differences were also found for the Turkish immigrant sample in structuring of daily activities. For instance, Turkish mothers were found to be engaging in dyadic interaction with their boys more than their girls. Turkish mothers also

read to their boys for a longer period than girls. As parent-child dyadic interaction and reading to the child were found to be positive predictors of children's cognitive skills (NICHD, 1999; Tamis-LeMonda et al., 2001; Whitehurst et al., 1994), it appears that Turkish boys receive more optimal parenting than girls. It may also be argued that this parental orientation favoring boys might be related to the high value put on boys in traditional Turkish family (Kağıtçıbaşı, 1996). However, one needs to be cautious in making these claims, since predictors of children's cognitive skills were not examined for the boys and girls separately in this study, because of small sample size for each sex group.

6.4 Associations between Parenting Predictors

Previous studies (Lawson, 2004; Skinner, Sandy, & Snyder, 2005) have shown that positive and negative aspects of parenting can be differentiated from each other. Consistent with these findings, the results obtained from the total sample revealed that mothers who reported higher levels of involvement with the child also displayed higher levels of positive parenting and time management, and provided more literacy experience to their child at home. Furthermore, it was found that positive and negative parenting practices were inversely related. For example, mothers who reported using higher levels of involvement showed lower levels of inconsistent discipline. These findings show that there are different indicators of positive and negative aspects of parenting, and these indicators tend to occur together within themselves.

The relations between parenting practices and structuring of daily activities formed an important focus in this study. It was predicted that mother's reports regarding her use of specific parenting practices such as involvement or time management would be reflected in daily activities of the child. As expected, for the total sample, the mothers who reported that they were more highly involved with the child and his/her activities were found to be reading to their child more. Similarly, for the total sample, children of mothers who reported high levels of time management were found to have lower total time score for daily tv watching. These findings showed that parenting practices scale and time budget inventory which were used in this study revealed consistent results.

Although no different hypotheses were made regarding the patterns of relationships between parenting variables for each group, it was notable for the German sample that total time of solitary play was positively related to total time of tv watching and to use of corporal punishment but negatively related to literacy experiences provided to the child at home. These findings imply that playing alone might be an indicator for the prevalence of negative parenting practices in the German families.

6.5 Predicting Cognitive Performance from Parenting Predictors

This section discusses the findings for the relations between parenting predictors and children's cognitive performance. In this study, the predicted relations between parenting practices and children's cognitive skills were tested by structural equation modeling for the German and Turkish immigrant groups separately.

Results of the structural equation modeling analysis were consistent with previous findings about the influence of parenting on children's cognitive development (Estrada et al., 1987; Landry & Smith, 2001; Tamis-LeMonda et al., 1996). When predictors of children's cognitive functioning were examined for the groups separately; two regression paths, namely, the maternal responsivity and home literacy environment were identified to be significant for the Turkish immigrant sample. High levels of responsivity and exposure to literacy experiences at home positively predicted children's cognitive functioning These findings provide support for previous arguments that responsive parenting (Bornstein & Tamis-LeMonda, 1989; Estrada, William, Roberts, & Holloway, 1987; Landry & Smith, 2001) and a cognitively stimulating home environment (Sénéchal & Le Fevre, 2002; Whitehurst et al., 1994) are important predictors of children's cognitive performance. In this study, measurement of maternal responsivity was achieved through combining involvement and positive parenting subscales. Hence, maternal responsivity scores reflect mothers' involvement with the child's school matters or willingness to play with the child, as well as use of positive parenting practices such as providing acceptance, affection and praise. On the other hand, level of cognitive stimulation provided to the child at home was measured by prevalence of literacy experiences such as reading to the child before school started.

However, for the German sample, the path from maternal responsivity to children's cognitive functioning was non-significant. The failure to find a significant relationship between responsivity and cognitive functioning in the German group might be in part due to smaller variance in these variables. Most of the German mothers reported that they

displayed high levels of involvement and positive parenting practices which together created the responsivity measure in this study. Even the lowest-educated mothers in the German sample were found to be highly involved with their children's school activities, willing to play and interact with the child, and provide praise, acceptance and encouragement to the child. In relation to that it might be claimed that maternal responsivity did not have discriminatory power for the German sample as it had for the Turkish sample. It seems that maternal responsivity is highly valued and widely displayed in Germany, at least among the parents of young children. Therefore, it might be claimed that responsive parenting, by itself, is not enough to predict cognitive performance of German children. Other aspects of parenting, such as provision of literacy experiences to the child, appear to be a more important factor determining cognitive skills of German children.

On the other hand, unexpectedly, the path from total time of solitary play to cognitive functioning was identified to be significant for the German group. Although no such hypothesis were made in the beginning, this finding is understandable because increase in solitary play might indicate lack of verbal stimulation received from the environment. In this sense, the negative relationship between solitary play and children's cognitive functioning seem to be supporting previous studies which underline the importance of verbal stimulation for development of cognitive skills in early childhood (Hoff, 2003; Laosa, 1982, 1984; Martini & Mistry, 1993; Slobin, 1972)

6.6 Methodological Considerations

A strength of the present study was the use of behavioral assessment as the measure of children's cognitive skills. In this study, children were given various tasks to assess their performance in four different cognitive domains, namely, memory, strategies, categorization and body-related vocabulary, and they received objective scores in these domains according to their actual performance in the test.

On the other hand, relying solely on children's test performance for assessment of cognitive skills might also bring some disadvantages. It might be suggested that it is anxiety provoking for young children to be tested by a newly introduced adult. For children who are temperamentally shy, testing situation might be even more problematic. However, in this study, all precautions were taken to apply the test as a natural play situation and to make the child feel comfortable. All children were given a warm-up period with the researcher before the test started.

In fact, comparing cognitive performance of German and Turkish immigrant children may have some inherent problems as the language acquisition environment and consequent language skills of these two cultural groups are definitely different from each other. As several studies indicated (Berk & Garvin; 1894; Kohlberg, Yaeger & Hjertholm, 1968 as cited in Bjorklund, 1995; Frauenglass & Diaz, 1985), it seems that children's language skills play an influential role in their cognitive task performance because of comprehension issue. For example, Kohlberg et al. (1968) report that children use their inner speech to guide their performance in problem-solving tasks and this tendency

increases over the preschool years, peaking between the ages of 6 and 7. In line with these findings, how bilingualism is related to children's performance in various cognitive tasks has been extensively investigated in the literature. While some of these studies attribute an advantage to bilingual children especially in non-verbal tasks such as creativity or geometric design (Darcy, 1946 as cited in Bialystok, 2001; Feldman & Shen; 1979; Ricciaredelli; 1992), some others claim that bilingualism (Magiste, 1979) negatively affects cognitive performance especially in tasks such as free recall, recognition, object or word naming. In this respect, comparing cognitive skills of German and Turkish immigrant children without taking into account the relations between language skills and cognitive performance is open to criticism. Investigating the ways through which bilingualism has an effect on the cognitive performance of Turkish immigrant children seems to be an important question for future research.

The use of maternal report for the assessment of parenting behaviors is another issue that should be discussed with respect to the selection of instruments in the study. Mothers' responses to the items of the scale may be biased or may be in culturally systematic ways. Observing mother-child relationships in a natural environment may provide more objective data. However, observation data are not also free from biases (Anastasi & Urbina, 1997). The knowledge that one is being observed may also influence the behaviors. Mothers who are aware that they are observed may behave in a more socially-desirable manner. Therefore, pros and cons of using observational or maternal-report data should be considered before determining the measures. The most important advantage of mother-report data over observation is its ability to measure wider range of

parenting behaviors that are difficult to observe in daily life (Anastasi & Urbina, 1997). For example, mothers' inconsistent discipline practices could solely be measured via parent-reports which seem to be very unlikely to be tapped by an observational method, especially when the observation is short or not extensive enough. Thus, use of mother report is defensible in this study.

A final but important point to mention about the methodology is that this study presented cross-sectional data which provide information on the relations between parenting and cognitive skills at one point in time. This makes it impossible to make causal inferences from the findings of the present study. Only longitudinal studies inform us about patterns of change and enable us to draw conclusions about cause and effect. In this respect, children will be tested again within next year as part of the larger project from which research questions of the present study were driven. This longitudinal design is especially necessary for understanding the development of Turkish immigrant children in Germany. Only longitudinal research can reveal how levels of exposure to German and Turkish language affect the development of Turkish immigrant children's cognitive skills.

6.7 Conclusion

Although migration of Turks traces back to 1950s and approximately 2 million Turkish citizens live in Germany today, to my knowledge, there is no research study conducted to understand the factors leading to low school performance for Turkish immigrant children. In this respect, the implications of this study are of special importance

for any attempt that aims to improve the situation of the Turkish immigrant population living in Germany.

This study investigated comparatively the role of parenting in young children's cognitive skills in Turkish immigrant and German samples. In general, the results revealed that there are significant differences between German and Turkish immigrant groups both in children's cognitive skills and parenting practices which altogether underline the disadvantaged position of the latter group. One of the most critical findings of the study appears to be that the differences between German and Turkish immigrant children in cognitive skills are seen before the school starts. This means that Turkish immigrant children lag behind children of the host society even between 3 and 5 years of age. Therefore, it can be concluded that interventions that aim to help Turkish immigrant children in terms of cognitive or academic performance should begin at very early ages.

The most important implication of this study is for possible interventions. In this study, consistent with previous research, some parenting variables were found to be largely and positively related to children's cognitive performance. Among these parenting predictors, provision of a stimulating home environment in terms of literacy appears to be an essential one both for Turkish immigrant and German children. Unfortunately, the findings also revealed that literate experiences given to the children in Turkish immigrant families are insufficient. Turkish immigrant parents are found to be very low in reading to the child, providing picture-books for the child or reading newspaper regularly themselves. However, as several authors (Martini & Mistry, 1995, 1996; Rogoff, 2003) argued children's school achievement can be predicted by some specific abilities acquired in early

childhood such as being familiar with reading materials, or having just a sense of how a text should sound. In this respect, lack of a cognitively stimulating home environment in terms of literacy in Turkish immigrant families seems to be the most significant disadvantage of these children. Similarly, findings of this study also attributed an influential role to maternal responsivity for the Turkish immigrant group. Little increases in mother's involvement with the child or use of positive parenting strategies lead to improvements in cognitive performance of Turkish immigrant children. These findings imply that overcoming the disadvantaged position of Turkish immigrant children is possible. It appears that with some boost to mothers making them more responsive and cognitively stimulating, better child outcomes can be obtained in Turkish immigrant groups.

There is a large-scale study conducted in Turkey to improve parenting abilities of low-SES mothers with a traditional background (Kağıtçıbaşı, 1996; Kağıtçıbaşı, Sunar, & Bekman, 2001; Kağıtçıbaşı, Sunar, Bekman, Cemalcılar, & Baydar, 2006). This study can be reviewed as an intervention model for Turkish immigrant families. In this program, mothers' involvement with the child, responsivity and provision of academic support to their children were improved by increasing their awareness about children's developmental needs and significant positive child outcomes were obtained in social, cognitive and academic terms even after twenty-two years (Kağıtçıbaşı et al., 2006). Children of those mothers who were trained displayed higher school attainment (Kağıtçıbaşı et al., 2001). These children performed better in intelligence tests and cognitive tasks which cover early cognitive skills such as classification, block design, and

picture arrangement (Kağıtçıbaşı, 1996). These children also gained in terms of language development and had higher scores in vocabulary tests (Kağıtçıbaşı, 1996). Mother-Child Education Foundation applied this program also to Turkish immigrants in some European countries such as Netherlands (1997), Belgium (1997), France (2000) and Switzerland (2006) as well as Germany (2000). Although context of socialization, language environment and school systems of Turkish immigrant groups are different than those in Turkey, such programs that have been proven to be successful may still be used as a base in establishing intervention programs that target Turkish immigrant populations.

To sum up, this study has important implications regarding where the disadvantages of Turkish immigrant children come from and what might be done to overcome these disadvantages. However, as this study aimed to investigate the relations between parenting and children's cognitive skills only, it cannot shed light onto all the factors that influence functioning of Turkish immigrant children in the German society. There are many other aspects of children's development (e.g., language, social, emotional) and the factors that affect them are left to be studied for further research. Among these topics, immigrant children's language development appears to be a very critical one. It is also known that children's social skills are closely related to their academic performance (Patterson, Reid, & Dishion, 1992). Studies consistently found significant associations between school drop-out and social adjustment problems (Hinshaw, 1992; Leventhal, Fauth, & Brooks-Gunn, 2005). Hence, all these issues should be investigated to see the big picture. The findings of this study together with others that will be conducted in the future

can contribute to the promotion of higher achievement among Turkish immigrant children and to creation of a more harmonious society in Germany.

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APPENDICES

Appendix A

Copy of Background Information From

İlk olarak size kendiniz ve çocuğunuzla birlikte yaşayan diğer kişiler hakkında sorular sormak istiyorum. Bu bizim araştırmamıza katılan anneler hakkında genel bilgiler edinmemizi sağlayacaktır.

1. Medeni halinizi nasıl tanımlarsınız?

1a. Medeni hali	1b. Su anda esiniz var mı ve varsa çocuğunuzun babası o mu?
(1) Evli	(1) Evet, çocuğun babası
(2) Evli/ ayrı yaşıyor	(2)Evet, çocuğun babası değil
(3) Bekar	(3) Hayır, eşim yok
(4) Boşanmış	(4) Çocuğun babası aynı evde kalmıyor, fakat çocukla ilgileniyor.
(5) Dul	

Notlar:_____

2. Annenin doğum yeri (Eşinin ve kendisinin Almanya'ya geliş tarihleri).

Anne	Eşi
2a. Hangi ülkede doğdunuz? (0) Almanya (1) Türkiye/ (2) başka	2b. Eşiniz hangi ülkede doğdu? (0) Almanya/ (1) Türkiye/ (2) başka
Annenin ebeveynleri	Eşin ebeveynleri
3a. Anne babanız hangi ülkede doğdu? (0) Almanya (1) Türkiye (2) baska	3b. Eşinizin anne babası hangi ülkede doğdu? (0) Almanya (1) Türkiye (2) baska
3c. Almanyada doğmadıysalar: Almanyaya göctüler mi? (2) n/a (1) evet (0) hayır	3d. Almanyada doğmadıysalar: Almanyaya göctüler mi? (2) n/a (1) evet (0) hayir
3e. Eğer Almanya'da yaşadıysalar: Buraya kaç yaşında geldiler? (0) n/a	3f. Eğer Almanya'da yaşadıysalar. Buraya kaç yaşında geldiler? (0) n/a

3g. Bugün anne babanız hangi ülkede yaşıyor? (0) Almanya/ (1) Türkiye/ (2) başka)	3h. Bugün eşinizin anne babası hangi ülkede yaşıyor? (0) Almanya/ (1) Türkiye/ (2) başka)
4a. Hangi ülkede okula gittiniz?	4b. Eşiniz hangi ülkede okula gitti?
Almanya'daki okul yılları:	Almanya'daki okul yılları:
Türkiye'deki okul yılları:	Türkiye'deki okul yılları:

Birden fazla gidiş-dönüş olduysa not ediniz:_____

4c. Meslek Eğitimi: Okulu bitirdikten sonra ne yaptınız? (Lütfen detayları, mesleki kariyeriniz anlaşılabilecek şekilde ekleyiniz).

(1) Meslek öğretimi gerekmeyen işte çalıştı/ Meslek öğretimini yarıda bıraktı
_____

(2) Bitirilen meslek öğretimi
_____

(3) Azubi
_____

(4) Meslek yüksek okulu/ Yüksek okul:
Alan:_____

(5) Üniversite öğrencisi:
Alan:_____

(6) Hiç çalışmamış/ Eğitim almamış: Neden?_____

(7) Diğer: _____

4d. Eşinizin en son mezun olduğu okul:

(1) yok (Toplam kaç sene okula gitti:_____) (2) HS/10a (3) Sekundar/Real/Mittelschulabschluss/10b
(4)Fachhochschulreife (5) Abi (6) İlk Okul (7) Orta Okul (8) Lise

4e. Eşinizin meslek eğitimi: Eşiniz okulu bitirdikten sonra ne yaptı? (Lütfen detayları, mesleki kariyerini anlaşılabilecek şekilde ekleyiniz).

(1) Meslek öğretimi gerekmeyen işte çalıştı/ Meslek öğretimini yarıda bıraktı:
_____

(2) Bitirilen öğretim:

_____

(3) Azubi

_____

(4) Meslek yüksek okulu/ Yüksek okul:

Alan:_____

(5) Üniversite öğrencisi:

Alan:_____

(6) Hiç çalışmamış/ Eğitim almamış:

Neden?_____

(7) Diğer:_____

5a. <Çocuğun ismi>'ya hamileliğiniz sırasında çalıştınız mı?

(1) EVET (0) HAYIR
► EVET İSE: Haftada kaç saat:_____Çalışmayı ne zaman bıraktınız? Doğumdan_____hafta önce.

5b .Çocuğunuzun doğumundan sonra tekrar çalışmaya başladınız mı?
(1) EVET
(0) HAYIR
►EVET İSE:Haftada kaç saat:_____Çalışmaya ne zaman başladınız? Doğumdan_____ ay sonra.

6a. Kendi anne-babanızın en son mezun olduğu okul hangisi?

Annenin annesi: : (1) yok	(2) HS/10a	(3) Sekundar/Real/Mittelschulabschluss/10b	(4)Fachhochschulreife	(5) Abi
(6)FH	(7)Uniabschluss	(8) İlk Okul	(9) Orta Okul	(10) Lise

Annenin babası: : (1) yok	(2) HS/10a	(3) Sekundar/Real/Mittelschulabschluss/10b	(4)Fachhochschulreife	(5) Abi
(6)FH	(7)Uniabschluss	(8) İlk Okul	(9) Orta Okul	(10) Lise

6b. Kayınvalideniz ve kayınbabanızın en son mezun olduğu okul hangisi ?

Babanın annesi: (1) yok	(2) HS/10a	(3) Sekundar/Real/Mittelschulabschluss/10b	(4)Fachhochschulreife	(5) Abi
(6)FH	(7)Uniabschluss	(8) İlk Okul	(9) Orta Okul	(10) Lise

Babanın babası: (1) yok	(2) HS/10a	(3) Sekundar/Real/Mittelschulabschluss/10b	(4)Fachhochschulreife	(5) Abi
(6)FH	(7)Uniabschluss	(8) İlk Okul	(9) Orta Okul	(10) Lise

7. Şimdi de şu aralar sizinle ve çocuğunuzla birlikte, uzun veya kısa süreli olarak yaşayan kişiler hakkında bilgi almak istiyorum. Evinizde başka kimler kalıyor? (örneğin; eş, arkadaş, anne-baba ya da başka yetişkinler, çocuklar). Lütfen onları sıralayıp, aşağıda ki bilgileri verin. (lütfen kendinizi de sayın)

Anneyle olan yakınlığı	Cinsiyet (K/E)	Yaş	Meslek (gerekirse tanımlayın)	Çalışıyor mu? evet/hayır	Haftalık çalışma saati
Anne (VP)	K				
Çocuğun babası	E				
Kardeşler		Doğum tarihi			

8. Evinizde kaç kişi oturuyor ?_____ Bunlardan çocuk olanların sayısı_____ .

9. Siz veya evde yaşayan herhangi biri, başka yerde yaşayan aile üyelerine para yardımında bulunuyor musunuz?
(1) Evet (0)Hayır

10. Şimdiye kadar anne ve çocuk için yapılan herhangi bir etkinliğe katıldığınız oldu mu? (mesela, Anne-çocuk grupları gibi)
(1) Evet (0) Hayır

EVET İSE: hangilerine:
(1) Spor (2) Yüzme (3) başka spor dalları (4) Müzik okulu (5) Krabbelgruppe / Pekip (6) başka_____

11a. Çocuğunuz ana okuluna başlamadan önce onunla sizden başka düzenli olarak ilgilenen ona bakan biri var mıydı?
(1) Evet (0) Hayır

Bunlar hangi kurumlar ya da kişilerdi? (gerekirse birden fazla cevap verilebilir)

	11b. Çocuk bakımı	11c. Haftada kaç saat	11d. Başka çocuklarda bulunmakta mı?
1	Kreş		(1) EVET (0) HAYIR
2	Tagesmutter/kendi evinde çocuklara bakan bakıcı		(1) EVET (0) HAYIR
3	Çocuk bakıcısı		(1) EVET (0) HAYIR
4	Komşular/Arkadaşlar		(1) EVET (0) HAYIR
5	Babası		(1) EVET (0) HAYIR
6	Akrabalar (Kim?)		(1) EVET (0) HAYIR
7	Çocuğu da götürüyorum/evde çalışıyorum		(1) EVET (0) HAYIR
8	Başka:		(1) EVET (0) HAYIR

12. Evinizde kaç oda var?_____ Eviniz kaç metre kare?_____

13. Çocuklarınız nerede yatar?

(1) Anne-babanın yatak odasında (2) Birlikte bir çocuk odasında (3) Çocuk odasında yalnız
(4) Bazen anne-babanın odasında, bazen çocuk odasında

14. Hangi dine mensupsunuz?

(0) Dini yok
(1) Protestan
(2) Katolik
(3) Sünni
(4) Alevi
(5) Şii
(6) Başka_____

14b. Esiniz hangi dine mensup?

(0) Dini yok
(1) Protestan
(2) Katolik
(3) Sunni
(4) Alevi
(5) Şii
(6) Başka _____

15. Çocuğunuzun cami gibi bir dini kurumun üyesi olarak büyümesi sizin için ne kadar önemli?

(3) Çok önemli
(2) Oldukça önemli
(1) Biraz önemli
(0) Hiç önemli değil

16. Çocuğunuzun eğitiminde dua, namaz gibi günlük dini kurallar sizin için ne kadar önemli?

(3) Çok önemli
(2) Oldukça önemli
(1) Biraz önemli
(0) Hiç önemli değil

17. Ailenizde ağırlıkla hangi dil konuşulur?

(1) Almanca
(2) Türkçe
(3) Almanca ve Türkçe
(4) Almanca ve başka bir dil

18. Ailenizde birisinin kütüphane üyelik kartı var mi? (1) Evet (0)Hayır

Varsa ortalama olarak kaç defa kullanılıyor?

(0) n/a (1) Ayda bir defa veya daha az (2) Ayda bir defadan fazla (3) Haftada bir kaç defa

19. Ailenizde düzenli bir şekilde günlük gazete okunur mu?

(1) Evet (0) Hayır

Okunuyorsa, hangisi? _____

20. Haftada kaç defa bir kitap yada gazete okursunuz?

(0) n/a (1) Haftada bir defa yada daha ender (2) Haftada bir kaç defa (3) Her gün

21. Siz ya da başka bir kişi çocuğunuza kitap okur mu?

(1) Evet (0) Hayır

Kim?

(0) Anne (1) Baba (2) Büyükbaba yada Büyükanne (3) Başkası_____

Haftada kaç defa?

(0) n/a (1) Haftada bir defa (1) Haftada bir kaç defa (2) Her gün

22. Eşiniz haftada kaç defa bir kitap yada gazete, dergi okur?

(0) n/a (1)Haftada bir defa yada daha ender (2) Haftada bir kaç defa (3) her gün

23. Çocuğunuzun kaç kitabı yada resimli kitabı var?

(0) n/a (1)10 tane yada daha az (2) 10-30 (3) 30 dan fazla

24. Siz cocukken yetişkinlerin çocuklarla lego gibi yapı oyuncakları yada başka şekilde oynaması veya kitap okuması yaygın mıydı?

Evinizde böyle adetler var mıydı?

(0) Hiç yada çok ender (1) bazen (2) daima/çok

25. Esinizi kendiniz mi seçtiniz?

(1) Evet (0)Hayır (2) Ailem önerdi ve ben kabul ettim

26. Çocuğun babasıyla akraba mısınız? (1) Evet (0) Hayır

Evet ise: Akrabalık ilişkinizi nasıl tanımlarsınız? _____

27 ►Almanya'daki ikamet durumunuzu nasıl tanımlarsınız?

(1) _____'dan beri (yıl olarak), Alman pasaportu.
(2) Aufenthaltsberechtigung (Alman vatandaşlığı başvurusunda bulunma hakkı)
(3) Unbefristete Aufenthaltserlaubnis (Alman vatandaşlarıyla eşit haklar, ör: sosyal yardım)
(4) Befristete Aufenthaltserlaubnis (Aile birleşimi kapsamında senelik olarak verilir, ancak beş yıl sonra yada Asylverfahren'in ardından unbefristete Aufenthaltserlaubnis verilir.)
(5) Aufenthaltsbefugnis (İnsani nedenlerden ötürü verilen ikamet hakkı, ör: siyasi arama, 8 sene sonra Aufenthaltsberechtigung alınabilir).
(6) Asylbewerber (Dava hala sürüyorsa)
(7) Duldung (Asylverfahren olumsuz sonuçlanmışsa verilen geçici ikamet etme hakkı)

(Davaları sonuca ulaşmış olan sığınma adayları vadeli yada vadesiz (befristet/ unbefristet) olarak oturma izni (Aufenthaltserlaubnis) yada oturma yetkisi (Aufenthaltsbefugnis) alırlar. Sizin davanız reddedildi mi, sınır dışına çıkmak zorunda mısınız ya da müsaade edilecek mi?.)

28. Esiniz cuma namazı için düzenli olarak camiye gidiyor mu?

(1) Evet (0) Hayır

29. Çocuğunuz ileride kuran kursuna gitmeli mi?

(1) Evet (0) Hayır (2) henüz kararlaştırılmadı

30a. Almanya'ya neden geldiniz?

(0) Geçersiz soru, çünkü burada doğdum
(1)Anne ve babayla Almanya'ya geldim
(2) Anne ve baba daha önceden Almanya'da idi, çocuk olarak arkadan geldim
(3) Aile birleşimi (Evlilik)
(4) Sığınma
(5) Diğer sebepler:

30b. Eşiniz Almanya'ya neden geldi?

(0) Geçersiz soru, çünkü burada doğdum
(1) Anne ve babayla Almanya'ya geldim
(2) Anne ve baba daha önceden Almanya'da idi, çocuk olarak arkadan geldim
(3) Aile birleşimi (Evlilik
(4) Sığınma
(5) Diğer sebepler:

Appendix B

Copy of Alabama Parenting Questionnaire

Aşağıda aile hayatınızı içeren bir takım sorular bulacaksınız. Bunları cevaplandırırken, sayılan davranışların normalde evinizde hangi yoğunlukta geçerli olduğunu düşünüp, sağ tarafta cevabınıza en uygun olan sayıyı lütfen işaretleyiniz

Hic (1) Yaklaşık hiç(2) Bazen (3) Yoğun olarak (4) Daima (5)

		Hiç	Yaklaşık Hiç	Bazen	Yoğun Olarak	Daima
1.Çocuğunuzla nazik bir tonda konuşursunuz.	I	1	2	3	4	5
2.Çocuğunuz yaptığı şeyi iyi yaparsa onu översiniz.	PP	1	2	3	4	5
3.Çocuğunuzu cezalandıracakmış gibi korkutup sonra cezalandırmazsınız.	ID	1	2	3	4	5
4.Anaokulunda olan etkinliklerin gerçekleşmesine gönüllü olarak yardım edersiniz.	I	1	2	3	4	5
5.Çocuğunuz söz dinleyip uslu durdugunda onu översiniz.	PP	1	2	3	4	5
6.Çocuğunuzla oyunlar oynar ya da başka eğlenceli aktiviteler yaparsınız.	I	1	2	3	4	5
7.Çocuğunuz yanlış bir şey yaptığı zaman kendisini cezalandırmamanız için sizi ikna ediyor.	ID	1	2	3	4	5
8.Çocuğunuza anaokulunda gününün nasıl geçtigini sorarsınız.	I	1	2	3	4	5
9.Çocuğunuzun sözünüzü dinlemesi icin sizce harcadığınız çabaya değmiyor.	ID	1	2	3	4	5
10.Çocuğunuzla özel cocuk faaliyetlerine gidiyorsunuz..	I	1	2	3	4	5
11.Çocuğunuz bir şeyi iyi yaptıgında ona sarılır ve öpersiniz.	PP	1	2	3	4	5
12.Çocuğunuzla arkadaşları hakkında konuşursunuz.	I	1	2	3	4	5
13.Çocuğunuza verdiginiz cezayı erken bitirirsiniz (söylediginizden daha erken bir zamanda kısıtlamaları kaldırmak gibi).	ID	1	2	3	4	5
14.Aile faaliyetlerini planlamada çocugunuz size yardım eder.	I	1	2	3	4	5
15.Bazen çocuğunuzun nerede ne yapıyor olduğunu unutacak kadar meşgulsünüz.	PM	1	2	3	4	5

		Hiç	Yaklaşık Hiç	Bazen	Yoğun Olarak	Daima
16.Çocuğunuz yanlış bir şey yaptığında onu cezalandırmazsınız.	PM	1	2	3	4	5
17.Çocuğunuza size yardım etmesinden hoşlandığınızı söylersiniz.	PP	1	2	3	4	5
18.Çocuğunuza verdiğiniz ceza, o anki ruh durumunuza bağlıdır.	ID	1	2	3	4	5
19.Çocuğunuz sık sık bir yetişkinin kontrolü olmadan evde yalnız kalır.	PM	1	2	3	4	5
20.Çocuğunuz yanlış bir şey yaptığında ona şamar atarsınız.	CP	1	2	3	4	5
21.Çocuğunuz kötü bir şey yaptığında, onu yok sayarsınız (görmezden gelirsiniz).	ODP	1	2	3	4	5
22.Çocuğunuz yanlış bir şey yaptığında ona hafif bir sille atarsınız	CP	1	2	3	4	5
23.Ceza olarak çocuğunuza sevdiği şeyleri yapmasını yasaklarsınız (Televizyon seyretme gibi).	ODP	1	2	3	4	5
24.Ceza olarak çocuğunuzu odasına gönderirsiniz.	ODP	1	2	3	4	5
25.Çocuğunuz kötü bir şey yaptığında ona iyice bir dayak atarsınız.	CP	1	2	3	4	5
26.Çocuğunuz kötü bir şey yaptığında ona bağırırsınız.	ODP	1	2	3	4	5
27.Çocuğunuz yanlış bir şey yaptığında ona sakince bu davranışın neden yanlış olduğunu açıklarsınız.	ODP	1	2	3	4	5
28.Çocuğunuzla kavga ederseniz kendisini sinirleri yatışana kadar odanın dışına gönderirsiniz..	ODP	1	2	3	4	5
29.Ceza olarak çocuğunuza fazladan/ ekstra görevler verirsiniz.	ODP	1	2	3	4	5
30.Çocuğunuzun uyku saatleri belli ve sabit midir?	TM	1	2	3	4	5
31.Çocuğunuzun televizyon seyredebileceği saatler öncede belirlidir.	TM	1	2	3	4	5
32.Ailenizde yemekler belli saatlerde yenilir.	TM	1	2	3	4	5

Note. I refers to Involvement; PP refers to Positive Paranting; ID refers to Inconsistent Discipline; CP refers ro Corporal Punishment; ODP refers to Other Discipline Practices; TM refers to Time Management; PM refers to Poor Monitoring/Supervision.

Appendix C

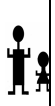
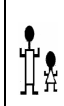
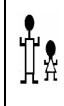
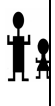
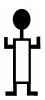
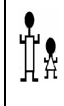
Reliability Coefficients for the Subscales of Alabama Parenting Questionnaire for German and Turkish samples.

	Total (N = 117)	German (n = 65)	Turkish (n = 52)
	α	α	α
Parenting Practices			
Involvement	.56	.59	.52
Positive Parenting	.63	.62	.67
Inconsistent Discipline	.64	.60	.61
Corporal Punishment	.58	.62	.50
Other Discipline Practices	.48	.46	.51
Time Management	.54	.55	.54

Appendix D

Copy of Time Budget Inventory

Haftanın hangi günü: (lütfen belirtiniz) **Pazartesi Salı Çarşamba Perşembe Cuma Cumartesi / Pazar**

Zaman	**Çocuk ne yapıyordu?** 	**Başlangıç** 	**Bitiş** 	**Çocukla birlikte başka kimler vardı?** Lütfen işaretleyin **Çekirdek Aile** **A:** Anne **B:** Baba **K:** Kardeş **Akrabalar** **KA:**Kadın Akraba **EA**:Erkek Akraba **KU:** Kuzenler **Diğer Kişiler** **DKB:** Diğer kadın büyükler **DEB:** Diğer Erkek büyükler **DA:** Diğer Arkadaşlar									 **Ana okulunda**	 **Evde**	 **Yolda**	**Başka yeler…** (Lütfen belirtin)	 **Televizyon, video yada DVD açık mıydı?**	
				A	**B**	**K**	**KA**	**EA**	**KU**	**DKB**	**DEB**	**DA**						
																	**Evet**	**Hayır**
																	**Evet**	**Hayır**
6.00																	**Evet**	**Hayır**

Appendix E

Copy of Instructions for Time Budget Inventory

Sevgili ebeveyn,

Çocukların bütün gün ne ile uğraştıklarını daha iyi anlayabilmemiz için, sizden hafta içi ve hafta sonu (Cumartesi veya Pazar) birer gün olmak üzere iki ayrı günde aşağıda ayrıntıları verilen günlüğü doldurmanızı rica ederiz.

Boşluk bırakılmaması için yapılması gerekenler:

Bizim için önemli olan, çocuğun 24 saat içinde neler yaptığını eksiksiz öğrenebilmektir. Bu sebeple, sizden bir gece yarısından diğer gece yarısına kadar gecen 24 saat içinde çocuğun nelerle uğraştığını hiç boşluk bırakmadan rapor etmenizi istemekteyiz.

Günlükte boşluk kalmaması konusunda size yardımcı olması açısından dikkat etmenizi istediğimiz noktalar şunlardır:

1) Eğer çocuğunuz sizinle birlikte evde ise ve çocuğun ne yaptığını ayrıntılarıyla biliyorsanız; bu durumda çocuğun uğraştığı aktivitenin ne olduğunu, bu aktivitenin ne zaman başlayıp bittiğini, bu esnada çocukla birlikte başka kimlerin olduğunu tam olarak belirtin ve formdaki "evde" sembolünü işaretleyin. Her aktivite değişiminde, yine tam zamanı bildirerek yeni aktiviteyi ayrıntılarıyla belirtmeye lütfen özen gösterin.

2) Çocuğunuzun siz yanında yokken anaokulunda geçirdiği süre için, lütfen tam zamanı yazın ve yeri "ana okulu" olarak işaretleyin.

3) Eğer belli bir süre içinde çocuğunuz bir yerden başka bir yere gidiyorsa, lütfen bu olayı da tam zamanını belirterek yazın. Örneğin, çocuğunuz sizinle beraber arabanızla çocuk doktoruna gidiyorsa, bu aktivite "arabada oturuyor"; sizinle beraber çocuk parkına yürüyorsa, bu aktivite "yolda yürüyor" olarak yazılmalı ve "yolda" anlamına gelen sembol işaretlenmelidir.

4) Eğer belli bir sure içinde çocuğun ne yaptığını tam olarak bilmiyorsanız, bunu bilmediğinizi de belirtmelisiniz. Örneğin çocuğunuzun sizden uzakta olduğu süreler için günlüğe, "odasında yalnız uğraşıyordu", "başka çocuklarla evin önünde oynuyordu" gibi çocuğun ne yaptığını tam olarak bilmediğinizi belirten cümleler yazabilirsiniz.

Haftanın hangi günü:

Sizden hafta içi bir gün (Pazartesi-Cuma arası) ve hafta sonu bir gün (Cumartesi, Pazar) olmak üzere iki ayrı günde günlüğü doldurmanız istenmektedir. Lütfen günü, size verilen günlük formunun üstünde yer alan, haftanın günlerinin sıralı olduğu bölümde doğru günü işaretleyerek belirtiniz.

Günlüğü doldurma ile ilgili karşılaştığınız herhangi bir soru yada sorunda bizi aramaktan lütfen çekinmeyiniz: 0234 – 32 28672 (öğleden önce) yada 0234 – 32 22666.

Eğer başka bir anlaşma yapılmadıysa günlüğü bize, gönderdiğimiz zarfın içinde geri yollayabilirsiniz. Lütfen son sayfaya size paranızı gönderebilmemiz için hesap numaranızı yazmayı unutmayınız .

Appendix F

Copy of Mother Consent Letter

MIEKA-RUB

Fakultät für Psychologie
Entwicklungspsychologie

Dr. Birgit Leyendecker
Dr. Banu Citlak

Sayın Anne ve Babalar

Anaokulu idaresi tarafından da sizlere bildirilmiş olduğu gibi, çocuğunuzun devam etmekte olduğu anaokulu Ruhr Üniversitesi'nin yapmakta olduğu bir araştırmaya katılmaktadır. Bu araştırma, ebeveynlerin, anaokulu veya ilkokula başlayacak olan çocuklarını bu geçişe nasıl hazırladıkları incelemeyi amaçlamaktadır.

Araştırma 2008 yılında ilkokula başlayacak olan çocuklar ve anneleri ile yapılacaktır. Karşılaştırmanın kolaylaşması için veli görüşmelerinin tümü annelerle yapılacaktır. Araştırma kapsamında 2006 ve 2007 yıllarında toplam üç görüşme yapılacak ve bu görüşmeler anaokulunda gerçekleşecektir.

Şahsınız ve çocuğunuz hakkında bu araştırmada edinilecek tüm bilgiler gizli tutulacak gerek anaokulu gerekse başka herhangi bir kurum ya da kişiye kesinlikle verilmeyecektir. Yapılacak olan değerlendirmeler genel olup kişilere yönelik bir atıf içermeyecektir.

Araştırmaya yaptığınız katkılar ve gösterdiğiniz ilgiye bir teşekkür olarak her görüşme için size 25 Euro (toplam 75 Euro) verilecektir.

Araştırmanın akışı:

Araştırmaya katılmak istiyorsanız bize telefonla haber verebilir ya da anaokulu idaresine bildirebilirsiniz. Başvurunuzdan sonra sizinle bağlantı kurulacak ve ilgili sorularınız tarafımızca cevaplanacaktır.

Soruların içeriği;

- Yaşamınız hakkında genel bilgiler. Örneğin: doğum tarihiniz, kaç çocuğunuz olduğu, hangi şehirlerde bulunduğunuz vb.
- Eğitimle ilgili beklentileriniz. Örneğin: eğitimde nelere önem verdiğiniz, anaokulu ve ilkokuldan çocuğunuz için neler beklediğiniz vb.
- Çocuğunuzun günlük hayatı hakkında bir anket. Örneğin: çocuğunuzun geçen 24 saatte neler yaptığı, kiminle beraber olduğu, genelde saat kaçta yattığı, siz ve çocuğunuzun başka hangi çocuklarla ve yetişkinlerle görüştüğü vb.

Bu görüşmeden sonra çocuğunuza anaokulunun sakin bir odasında bir gelişim testi uygulanacaktır. Yaklaşık bir saat süren bu testte çocuğun zihinsel, fiziksel ve dil gelişimi oyunlarla ölçülecektir. Test uygulaması çocuğun en iyi konuştuğu dilde (Türkçe veya Almanca) yapılacaktır.

Çocuklar bu test uygulamasını genelde zevkli bulmaktadırlar. Çocuğunuzun yorulması ya da o gün isteksiz olması halinde ise teste ara verilecek ya da test ertelenecektir.

2006 ve 2007 sonbaharında gerçekleşecek olan diğer tüm görüşmeler de benzer şekilde olacaktır.

Dilerseniz çocuğunuzla yapılacak olan test uygulamalarına siz de katılabilir ve bu gelişim testinin sonuçlarını beraber konuşup değerlendirmemizi talep edebilirsiniz.

Bu noktada, çocuklarla yapılan test ve araştırmalarda uzun yıllardır tecrübe sahibi olduğumuzu belirtmenin faydalı olduğunu düşünüyoruz. Umuyoruz ki sizler de bu araştırmayı çocuğunuz hakkında bilgi edinmek için iyi bir fırsat olarak değerlendirirsiniz.

Son olarak, konu hakkındaki tüm sorularınızı memnuniyetle cevaplandıracağımızı belirtiyor ve katılımınız için sizlere şimdiden teşekkür ediyoruz.

Saygılarımızla,

Birgit Leyendecker ve Banu Citlak

Bu araştırmaya katılmak istiyorsanız, lütfen bu sayfayı doldurup anaokulu idaresine veriniz.

Evet, ben ve çocuğum MIEKA-RUB araştırmasına katılmak istiyorum:

Annenin Soyismi ve İsmi:

Çocuğunuzun İsmi:

Çocuğunuzun Doğum Tarihi:

Adres:

Telefon:

Sorularınızı memnuniyetle cevaplandıracağız. Bizi arayabilirsiniz. Katılımınız için şimdiden çok teşekkürler!

Appendix G

Pearson Product-Moment Correlations among Cognitive Skills

	Total Sample (N = 117)				
Variable	Child's age	1	2	3	4
1 Memory	.21*				
2 Strategies	.14	.46**			
3 Categorization	.43**	.46**	.65**		
4 Body-relared vocabulary	.30**	.32**	.47**	.35**	
5 Overall cognitive performance	.22*	.67**	.83**	.84**	.65**

	German Sample (n = 65)				
Variable	Child's age	1	2	3	4
1 Memory	.11				
2 Strategies	.20	.43**			
3 Categorization	.28*	.38**	.54**		
4 Body-related vocabulary	.43**	.26**	.38**	.26**	
5 Overall cognitive performance	.30*	.63**	.83**	.81**	.59**

	Turkish sample (n = 52)				
Variable	Child's age	1	2	3	4
1 Memory	.29*				
2 Strategies	.05	.43**			
3 Categorization	.20	.48**	.53**		
4 Body-related vocabulary	.17	.28**	.45**	.28**	
5 Overall cognitive performance	.14	.67**	.81**	.85**	.57**

Note. *$p < .05$. **$p < .01$.

Appendix H

Pearson Product-Moment Correlations among Overall Cognitive Performance and Parenting Variables

Total Sample (N = 117)

		Child's age	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Overall cognitive performance	.22*													
2	Parent-child dyadic interaction	.02	.14												
3	Solitary Play	-.16	.12	.32**											
4	Family interaction	.27*	.15	.08	-.28**										
5	Play with the sibling	-.05	.20**	-.28**	-.20*	-.03									
6	Tv watching	.10	-.24*	-.03	.01	-.03	.55**								
7	Reading to the child	-.12	.10	.11	.06	.13	-10	-.10							
8	Involvement	.16	.27**	.11	.02	.02	-20*	-.00	.17*						
9	Positive Parenting	.12	.14	-.07	.04	.19*	-.15	.05	-.15	.36**					
10	Inconsistent discipline	-.04	-.16	-.05	-.03	.09	.13	..03	-.11	-.27**	-.03				
11	Corporal Punishment	.01	-.21*	-.01	.08	-.06	.24**	.24**	-.26**	-.07	-.01	.15			
12	Time management	.07	.18*	.06	-.01	.20*	-.30*	-.30*	.11	.25**	-.03	-.05	-.06		
13	Other discipline Practices	.06	-.01	.04	.10	.05	-.13	-.17	.06	-.04	.02	.15	.29**	.11	
14	Home literacy environment	.07	.50**	.32**	.01	.16	-.20*	-.30*	.22**	.27**	.08	-.18*	-.25**	.2 3*	.05

German Sample (n = 65)

		Child's age	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Overall cognitive performance	.30*													
2	Parent-child dyadic interaction	-.01	-.03												
3	Solitary Play	-.13	-.53*	. 30*											
4	Family interaction	.40**	.39**	.02	-.36**										
5	Play with the sibling	.01	.18	-.20	.03	-.02									
6	Tv watching	.10	.09	.17	.21	.04	.31*								
7	Reading to the child	-.10	.02	-.01	-.18	.13	-.10	-.12							
8	Involvement	.16	.08	.02	-.01	-.02	-.17	.08	.14						
9	Positive Parenting	.16	.09	-.20	-.01	.11	.00	.22	-.02	.37**					
10	Inconsistent discipline	-.02	.07	.10	-.16	.03	.07	-.10	-.13	-.18	-.10				
11	Corporal Punishment	-.01	-.17	.17	.32**	-.20	.09	.12	-.18	.03	.17	-.08			
12	Time management	.13	.18	-.04	-.02	.02	-.14	-.10	.01	. 27*	.10	-.05	.00		
13	Other discipline Practices	.07	.04	-.01	-.18	.13	-.30*	-.17	.04	-.17	-.00	-.09	.21	.14	
14	Home literacy environment	.18	.43**	.11	-.25*	.20	-.04	.03	.11	.20	-.06	.04	-.04	.20	.18

Turkish Sample (n = 52)

		Child's age	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Overall cognitive performance	.14													
2	Parent-child dyadic interaction	.05	.00												
3	Solitary Play	-.21	.14	.28*											
4	Family interaction	.13	-.15	.22	-.20										
5	Play with the sibling	-.06	-.23	.06	-.01	-.01									
6	Tv watching	.16	.09	.21	-.06	-.06	.55**								
7	Reading to the child	-.18	-.04	.23	.11	.11	.16	.13							
8	Involvement	.16	.34*	.06	-.02	-.05	.20	.11	.10						
9	Positive Parenting	.08	.17	.01	.07	.27	-.24	-.03	-.36**	.34*					
10	Inconsistent discipline	.05	-.15	.05	.21	.20	-.03	-.12	.08	-.27	.05				
11	Corporal Punishment	.04	-.02	.08	-.00	.09	.20	.12	-.23	-.05	-.11	.17			
12	Time management	.02	.08	.06	.10	.19	-.30*	-30*	.14	.18	-.15	.04	-.02		
13	Other discipline Practices	.08	.15	.22	.08	.10	-.26	-40*	-.03	.12	.05	.19	.25	.18	
14	Home literacy environment	-.07	.34*	.26	.06	.10	-.09	-.22	.11	.19	.17	-.13	-.18	.13	.24

*p < .05. **p < .01.

Appendix I

Means, Standard Deviations and t-Test Results for German and Turkish Samples

	German (n = 65)		Turkish (n = 52)			
Variable	*M*	*SD*	*M*	*SD*	two-tailed	*p*
Parenting Practices (N = 117)						
Involvement	4.03	0.40	3.85	0.42	-2.29	< .05
Positive Parenting	4.60	0.43	4.54	0.53	-0.60	ns
Inconsistent discipline	2.18	0.60	2.60	0.73	3.40	< .001
Corporal punishment	1.36	0.43	1.69	0.59	3.35	< .001
Time management	4.09	0.82	3.78	1.02	-1.82	ns
Other Discipline Practices	2.36	0.45	2.68	0.69	2.94	< .01
Home literacy environment	11.02	3.02	7.65	3.13	-5.88	< .001
Daily Activities (N=117)						
Parent-child dyadic interaction	39.33	36.49	12.49	18.85	-4.81	< .001
Solitary play	66.10	49.46	48.59	53.16	-1.84	ns
Family interaction	65.99	44.90	61.75	43.80	-0.53	ns
Play with the sibling	19.69	30.64	50.11	41.18	4.58	< .001
Tv watching	53.22	44.91	102.29	62.18	4.95	< .001
Reading to the child	19.80	14.34	12.25	12.54	-2.98	< .01
Cognitive Skills (N =117)						
Memory	6.82	3.03	5.45	3.56	-2.25	< .05
Strategies	7.60	1.85	6.54	1.78	-3.12	< .01
Categorization	7.62	1.76	6.38	2.30	-3.28	< .01
Body-related vocabulary	5.05	2.58	2.71	2.04	-5.35	< .001

Appendix J

Means, Standard Deviations and *t*-Test Results for Boys and Girls

Table J1
Means, Standard Deviations and t-Test Results for Boys and Girls in the Total Sample

	Male (n = 62)		Female (n = 55)			
Variable	*M*	*SD*	*M*	*SD*	two-tailed	*P*
Parenting Practices						
Involvement	3.97	0.45	3.93	0.38	-0.52	ns
Positive Parenting	4.54	0.52	4.61	0.41	0.78	ns
Inconsistent discipline	2.40	0.76	2.33	0.61	-0.48	ns
Corporal punishment	1.51	0.53	1.50	0.54	-0.07	ns
Time management	3.97	1.01	3.93	0.83	-0.23	ns
Other Discipline Practices	2.57	0.58	2.43	0.60	-1.33	ns
Home literacy environment	9.66	3.21	9.36	3.80	-0.45	ns
Daily Activities						
Parent-child dyadic interaction	29.03	33.40	25.57	32.13	-0.57	ns
Solitary play	67.21	55.07	48.29	45.98	-2.01	<.05
Family interaction	56.99	44.84	72.12	42.62	1.86	ns
Play with the sibling	36.95	41.63	28.99	34.89	-1.11	ns
Tv watching	77.00	64.17	72.81	51.67	-0.38	ns
Reading to the child	17.63	13.06	15.10	15.05	-0.97	ns
Cognitive Skills						
Memory	6.02	3.30	6.42	3.39	0.65	ns
Strategies	7.00	2.11	7.27	1.60	0.76	ns
Categorization	7.00	2.05	7.15	2.18	0.38	ns
Body-related vocabulary	3.44	2.18	4.65	2.93	2.55	<.05

Table J2

Means, Standard Deviations and t-Test Results for Boys and Girls in the German Sample

	Male (n = 35)		Female (n = 30)			
Variable	*M*	*SD*	*M*	*SD*	two-tailed	*p*
Parenting Practices						
Involvement	4.01	0.45	4.04	0.33	0.35	ns
Positive Parenting	4.55	0.49	4.65	0.34	0.93	ns
Inconsistent discipline	2.14	0.67	2.22	0.51	0.47	ns
Corporal punishment	1.39	0.46	1.32	0.39	-0.62	ns
Time management	4.19	0.86	3.96	0.75	-1.09	ns
Other Discipline Practices	2.40	0.44	2.31	0.46	-0.81	ns
Home literacy environment	10.97	2.69	11.06	3.40	0.12	ns
Daily Activities						
Parent-child dyadic interaction	37.72	17.58	41.20	25.72	0.38	ns
Solitary play	76.45	49.12	54.02	47.85	-1.85	<.05
Family interaction	57.81	45.38	75.51	43.12	1.60	ns
Play with the sibling	16.17	6.05	23.78	5.25	0.99	ns
Tv watching	44.24	39.79	63.68	48.81	1.76	=.08
Reading to the child	19.01	13.05	20.70	15.79	0.47	ns
Cognitive Skills						
Memory	6.57	3.18	7.11	2.86	0.71	ns
Strategies	7.56	2.02	7.63	1.65	0.16	ns
Categorization	7.42	1.82	7.84	1.67	0.96	ns
Body-related vocabulary	4.20	2.07	6.03	2.78	3.03	< .01

Table J3

Means, Standard Deviations and t-Test Results for Boys and Girls in the Turkish Sample

	Male (n = 27)		Female (n = 25)			
Variable	*M*	*SD*	*M*	*SD*	two-tailed	*p*
Parenting Practices						
Involvement	3.91	0.44	3.78	0.38	-1.09	ns
Positive Parenting	4.52	0.56	4.56	0.49	0.21	ns
Inconsistent discipline	2.71	0.75	2.47	0.68	-1.23	ns
Corporal punishment	1.66	0.57	1.72	0.61	0.32	ns
Time management	3.67	1.11	3.88	0.92	0.70	ns
Other Discipline Practices	2.78	0.66	2.56	0.71	-1.17	ns
Home literacy environment	7.96	3.05	7.32	3.23	-0.73	ns
Daily Activities						
Parent-child dyadic interaction	17.76	13.16	6.80	5.44	-2.17	<.05
Solitary play	55.22	50.77	41.42	33.59	-0.93	ns
Family interaction	55.91	44.95	68.04	42.52	0.99	ns
Play with the sibling	63.88	42.93	35.22	30.08	-2.65	<.05
Tv watching	119.45	65.36	83.75	53.83	-2.14	<.05
Reading to the child	15.84	12.96	8.37	7.03	-2.22	<.05
Cognitive Skills						
Memory	5.30	3.36	5.60	3.81	0.29	ns
Strategies	6.27	2.03	6.82	1.43	1.11	ns
Categorization	6.45	2.21	6.31	2.44	-0.21	ns
Body-related vocabulary	2.44	1.93	2.98	2.15	0.95	ns

Appendix K

Standardized Estimates for the Final Model

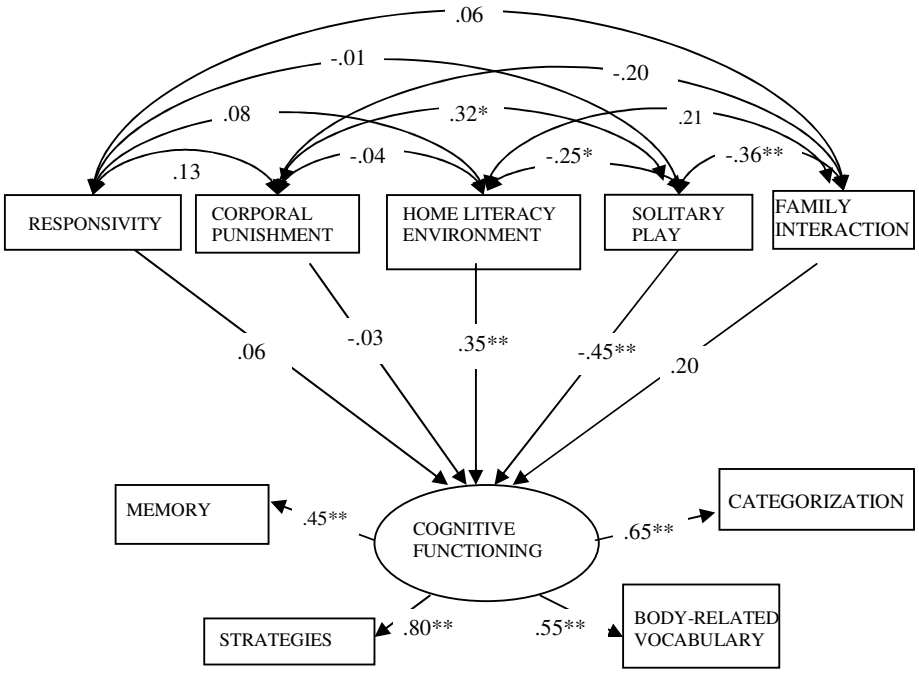


Figure K1. Significant and non-significant standardized estimates for the German sample (n = 65)

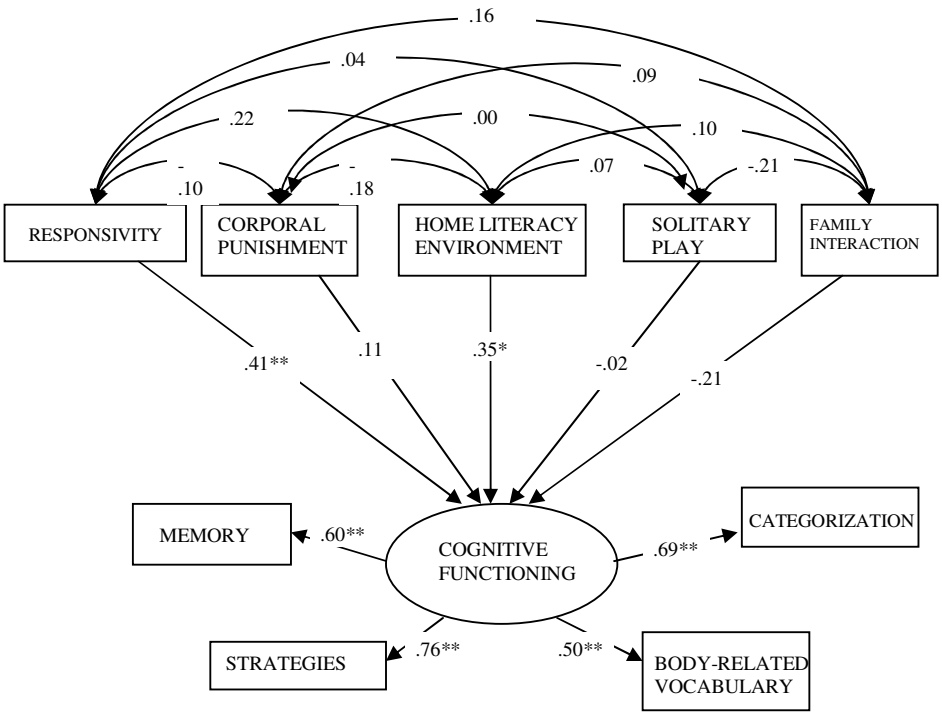


Figure K2. Significant and non-significant standardized estimates for the Turkish sample (n = 52)