



NEED ASSESMENT IN EARLY CHILDHOOD EDUCATION AND
AN EVALUATION OF CHILDREN'S LEVEL OF LINGUISTIC COMPETENCE IN THREE
PROVINCES OF TURKEY



RESEARCH REPORT

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Funded by:
Boğaziçi University Research Fund (Project # 00 R 101)
Mother Child Education Foundation

January 2002



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1. STATEMENT OF THE PROBLEM AND RATIONALE

1. Introduction

It is well known that social and economic development of a country is directly related to the level of schooling achieved. Early childhood education is a very effective means of increasing the likelihood of the child's success in school, thus the level of education attained, particularly for children coming from families with low socio-economic standing.

The proposed project involves an interdisciplinary research aiming to survey the need for early childhood education as well as the level of linguistic competence of children living in disadvantaged environments in three provinces of Turkey, Istanbul, Diyarbakır and Van. The motivation behind the research is to develop a language support program that could be integrated into the existing kindergarten programs or be used as part of alternative early childhood education (ECE) models.

1.1. The importance of early childhood education and intervention programs

The basic building blocks for the child's physical, cognitive, social and emotional development are set in the early years of life in the context of the family and the community at large. Therefore, parents as the primary agents of non-formal care and education take on a most important role for the development and learning of the child. In many communities this is supported by preschool institutions that provide services at different levels. In contexts that are disadvantageous for child development, such formal care and education becomes most significant and functions as an intervention measure. There is ample research pointing to the positive influences of early childhood intervention on school readiness, as well as learning and success in primary school (Campbell & Ramey, 1994; Kağıtçıbaşı, 1997; Kağıtçıbaşı, Sunar & Bekman, 2001). Intervention programs serve to compensate socio-economic and gender related inequalities pervasive in most societies. Children subject to such unequal conditions and are thus at risk tend to lag far behind their peers and this developmental gap expands in later years (Berrueta-Clement, Schweinhart, Barnett, Epstein, & Weikart, 1986; Hess, 1970; Lazar & Darlington, 1982; Pehrson & Robinson, 1990). Effective programs which give children a fair start in the early years, not only help them catch up easily and lead to an increased enrolment in later schooling, but also decrease the need for remedial programs for unsuccessful and repeating students (Myers, 1992). Early childhood intervention programs are thus more cost-effective as compared to those provided in later years.

The government has chosen to go to scale with a center-based model, defining the target group as the 5-6 age bracket. Even with this narrow definition and single model of ECE the available facilities can reach a small percentage of the target population. In fact, according to the 1998 figures (Institute of Population Studies of Hacettepe University, 1999), only 9% of 5-6 year olds attend any institution for preschool education. In the last decade, a number of non-governmental organizations have taken serious interest in contributing to the improvement of education in Turkey. Mother Child Education Foundation (ACEV) as one of such organizations has been actively engaged in training mothers to give support to the development of their pre-school children at home, using an early childhood education program developed specifically for this purpose.

1.2. The Importance of Language Competence Prior to Literacy Development

One of the defining aspects of formal schooling is its use of both oral and written language as the medium of instruction and acquisition of knowledge. The child starts primary school with a



given level of language competence that is required for the learning of the writing system. This involves the acquisition of a (de)coding system and its manipulation. It is, therefore, essential that the child has achieved an adequate level of linguistic competence prior to entering school. Linguistic competence is, naturally, very closely related to cognitive competence the further development of which constitutes one of the targets of formal education. Activities in programs of preschool education typically concentrate on developing children's cognitive and linguistic skills, thus preparing them for the acquisition of literate competence. Availability of early childhood education programs and particularly early enrichment programs is extremely important for preparing children from environmentally disadvantaged homes for school.

Turkey has a centralized system of education; compulsory education is eight years and the language of instruction is Turkish. The ECE or the primary school systems are not equipped with special programs or approaches to bridge the language gap for children who come to school with no or insufficient knowledge of Turkish. Remedial instruction to teach Turkish is done, at best, in the first grade by the class teacher using informal self-devised methods. The main aim of first grade activities is the acquisition of literacy, i.e. of coding/decoding skills which rely particularly on syntactic and narrative competence. Any delay in the acquisition of literacy skills will then hinder, in later years of school, the mastery of literate competence which aims at developing strategic skills for planning, monitoring and evaluation of information, increasing register awareness and cultural background knowledge.

1.3. Research objectives

The research, carried out to determine the structure and content of the language support program to be developed, and the most appropriate model for its implementation, focused on two main areas of inquiry:

- (1)
 - a. Assessing the needs of mothers of 5 to 6 year olds with respect early child care, and early childhood education services
 - b. Assessing the needs and expectations of teachers working in early childhood education and primary schools.
- (2)
 - a. Identifying the levels of linguistic competence of 5 to 6 year olds and 1st and 2nd graders, at the beginning of their school year,
 - b. Identifying the levels of written expression, which is one aspect of literate competence, of children at the beginning of the 2nd and 5th grades.



2. METHOD

2.1. Sample

Provinces, counties and schools

In order to realize the above mentioned objectives a field survey with a cross-sectional design was carried out in three provinces of Turkey, namely Istanbul, Diyarbakır and Van. The research team visited the local governors/ administrators of each province and using expert-sampling, determined three counties from each province in order to obtain a representative sample.

The Directorate of National Education was contacted in each district, and two schools which had kindergarten classes and were representative of the socio-economic status of the region were selected. In order to minimize the teacher effect, two classrooms from each grade (kindergarten, and 1st, 2nd and 5th grade) were chosen randomly. The teachers of the selected classrooms made up the teachers' sample. Interviews were conducted with 12 teachers per grade, 48 teachers per province, and with 144 teachers in total, in all three provinces

Sampling of children and students

(a) Language tasks

The sample for the assessment of linguistic competence was drawn from the kindergarten, 1st grade and 2nd grade classrooms again by use of random number tables. Pilot testing revealed that administration of the four language tasks altogether took about 40 minutes. Since 6-year olds lost their interest and attention after 20 minutes, two different sets, each set consisting of six children were selected. One group was assigned the Story Telling (Narrative Production) and Elicited Imitation tasks, while the other group was given the Peabody Picture Vocabulary Test and Story Comprehension Questions. Thus 12 children in total were selected from each classroom of each grade level for the assessment of linguistic competence, adding up to 72 per province per grade level. However, only 36 kindergarten children were selected from each province since the other half of the 5-6 year old age group comprised of children not attending preschool but cared at home (the selection of this group is discussed below in the section on the sampling of mothers) (see Table 1 for the planned sample size per province). It should be noted that the difference between the kindergarten and the same age home-cared group is that the former group comes from families who can afford to send their children to kindergarten whereas the latter do not. Since the assessments were carried out in the beginning of the school year, level of linguistic competence of the children attending kindergarten does not yet reflect the effects of schooling.

Table 1 Distribution of the planned sample by school and grade per province

Province	District 1		District 2		District 3		Total
Home-cared	12		12		12		36
	School A	School B	School A	School B	School A	School B	
Kindergarten	6	6	6	6	6	6	36
1 st grade	12	12	12	12	12	12	72
2 nd grade	12	12	12	12	12	12	72
Total	36	36	36	36	36	36	216

(b) Compositions



The sample needed to assess literate competence was selected from among the 2nd and 5th graders. Second graders were included in the sample because they would have acquired basic literacy skills in the 1st grade, and 5th graders because they were expected to have developed a certain level of competence in literacy. All students in a classroom were asked to write a composition; once gathered, the compositions of those 2nd graders taking part in the linguistic competence assessment were selected, and 12 compositions from each 5th grade classroom, half from boys and half from girls, were chosen randomly. As a result, 398 compositions from 2nd graders and 431 from 5th graders were gathered, constituting the 829-composition database.

Sampling of mothers

Interviews were conducted with the mothers of the sample constituting the kindergarten (36) and home-care (36) groups in each province, making a total of 216 mothers in the three provinces. Care was taken to ensure that the education, income level and place of residence of the two groups were as similar to one another as possible.

2.2. Instruments of measurement

2.2.1. Interviews

Face-to-face interviews incorporating structured and open-ended questions were carried out with the mothers and the teachers.

Interviews with the mothers of the 5 to 6-year olds: Questions aiming to assess their needs, expectations, and desires concerning ECE services were asked.

Interviews with the kindergarten teachers: Questions aiming to assess their needs and expectations concerning ECE services, as well as their evaluations of the system were asked.

Interviews with the 1st, 2nd and 5th grade teachers: Questions aiming to determine the contribution of ECE to school readiness, to levels of cognitive and linguistic competence of the children at the start of school, problems encountered in and suggestions pertaining to teaching literacy were asked.

2.2.2. Language tasks

(i) Peabody Picture Vocabulary Test

The test, which measures the receptive lexical knowledge of the child, consists of 100 words listed from those that are better known among children, to the least known. For each word asked there are four pictures on a page, and the child is asked to point to the picture that represents the word in question.

(ii) Narrative Production and Narrative Comprehension tasks

This task was carried out with the participation of two children. Six pictures depicting a meaningful story were placed in front of one of the children who was then asked to tell the story to the second child based on these pictures. The story was recorded and later transcribed. The second child was seated so that s/he could not see the pictures, was told to listen carefully and was subsequently asked three comprehension questions pertaining to the story told by the first child.¹

¹ When transcribed, it was observed that the told stories were weak in terms of plot structure and content, and therefore asking the children the previously prepared questions had not been meaningful. The collected data were not included in the analysis since the number and the content of the questions asked varied from child to child and the answers could no be taken to correctly reflect the comprehension level of the children.



(iii) Elicited Imitation task

To assess children's level of syntactic knowledge, twenty model sentences incorporating various linguistic structures (adverbial, complement and relative subordinate clauses, coordinate clauses, passive and causative infixes, etc.) were prepared. In order not to push short-term memory limitations, the majority of the sentences were constituted of 5-8 words, only three were 8 words long. Care was taken to make the contents of the sentences easily understandable for children. Each child was asked to repeat the model sentence right after the experimenter read it out loud. The repeated sentences were recorded and later transcribed. In this manner, an attempt was made to determine the linguistic structures children had difficulty in imitating. The underlying assumption of this method is that language structures a child cannot repeat in exactly the same way are those that have not yet been fully internalized.

(iv) Written compositions to assess level of literacy

Children from the 2nd and 5th grades were asked to write a composition in class on 'The child who was always losing something.' These children were also asked to indicate whether they knew any language other than Turkish and to indicate what it was, in the appropriate space on the sheet of paper provided for writing their compositions.

2.2.3. Assessment of level of academic success

Final grades

In order to examine the relationship between linguistic and literacy competencies and academic success, the report card grades of all 1st, 2nd and 5th graders were collected at the end of the academic year.

2.3. Procedure

Data collection from children began simultaneously in all three provinces, in September, in the second week of the 2000-2001 school year. The data were collected in an empty classroom provided by the school administration, where two children were tested at a time. The interview data was collected in October-December 2000. In June 2001 another visit was arranged to the research region and the report card grades were obtained.



3. EARLY CHILDHOOD EDUCATION NEED ASSESSMENT SURVEY

3.1. Findings of the Mother Interviews

Demographic Characteristics

Age: On average, mothers were 31 and fathers were 36-years old.

Education: Comparison of the mothers in terms of their level of education revealed that the Diyarbakır and Van mothers had received less education than those from Istanbul. While a majority of the mothers from Istanbul were primary school graduates (58.6%), the mothers from the Diyarbakır and Van provinces were found to be either illiterate or elementary school dropouts (41.7% and 46.7%, respectively). In all three provinces the level of education of the fathers was higher than that of the mothers.

Employment: Majority of the mothers did not work for an income. Employed mothers constituted 20% of the sample in Istanbul and Diyarbakır, and nearly 10% in Van. However, a finding that cuts across all three provinces is that the majority of the employed mothers were civil servants. Only a small percentage of the fathers were unemployed (less than 10% in all three provinces). The number of fathers working as unskilled laborers was higher in Diyarbakır than in Istanbul and Van, and the number of those working as civil servants was higher in Diyarbakır and Van than in Istanbul.

Income: Highest average monthly income was in Istanbul, and lowest in Diyarbakır. In each province, the income of most families ranged between 150 million TL and 500 million TL.

Number of children: Families in Istanbul had fewer children (mean=2.3) than families in Van (mean=3.3) and especially in Diyarbakır (mean=3.8). In all three provinces, the total number of people living per household was 5-6 on average, and ranged between 3-14 people. The most crowded households were found in Van, closely followed by those in Diyarbakır. Considering that the number of people living per household was lower in Istanbul in comparison to the other provinces, the number of rooms or space per person can be said to be higher in Istanbul.

Type of care preferred by mothers

When mothers were asked about the type of care and education they preferred for their preschool-aged children, 53% said they would prefer that their children attend a kindergarten while they themselves receive mother-education, and 25% stated they would prefer having their children attend a kindergarten. This finding indicates that in general, mothers would like to receive some educational support in addition to sending their children to an ECE center. The preferences of the mothers were the same in all three provinces.

The most frequently mentioned reasons for wanting to send children to a kindergarten were attainment of cognitive readiness for school (50%), socialization (48%) and getting used to school life and rules. While mothers in Istanbul noted socialization more than cognitive readiness, the opposite was found for mothers from Van and Diyarbakır. Acquiring Turkish as the school language was one of the reasons given in Diyarbakır equally frequently. Half of the 111 mothers who did not send their child to a kindergarten stated the reason for this to be lack of financial means to do so. These findings reveal that there is need for improvement in the early childhood education system in Turkey. The fact that the system operates on the



basis of fees or donations means that the group who needs to benefit from it the most is in fact doing so the least, if at all.

The type of support mothers need in relation to child care

Mothers were asked about the kind of support they needed during the period between the beginning of their pregnancy and the time their children were six years old. For the period of pregnancy, housework (56.3%) and health-related issues (30%) were noted to be the areas in which they needed most support. Majority of the mothers in Istanbul reported feeling the need for emotional support (50%), and majority of the mothers in Diyarbakır and Van reported feeling the need for support in housework (both 63%) during their pregnancy. In all three provinces half of the mothers said that they needed most support in the area of child care during the period between the child's birth until age six. The mothers who stated they needed support both during pregnancy and from the time of birth until age six were from Diyarbakır (86% during pregnancy, 78% until age six).

Majority of the Istanbul mothers stated they had received the support they needed both during pregnancy (80%) and from the time their child was born until the age six (60%). The mothers in Van had received the least support (64%) during pregnancy, and mothers in Diyarbakır had received the least support (45%) from the time their child was born until age six. The person who provided support the most during pregnancy was found to be the spouse, and during the period from birth until six years of age members of the extended family came into play.

Half of the mothers said they received support from the fathers in child-care activities whereas half said they did not. They reported receiving support mostly in care-taking of the child (63%). The frequency with which fathers spent time with their children was found to be the highest in Istanbul, and the lowest in Diyarbakır.

The developmental environment of the child

Both the physical characteristics of the child's environment and those characteristics supportive of his/her social and cognitive development were assessed using various indices. A comparison of the physical environments revealed that children in Diyarbakır were living in more disadvantageous conditions than the children in Istanbul and Van. Furthermore, it was observed that the children in Istanbul were living in environments that were more stimulating and supportive of their social and cognitive development than their peers in Diyarbakır and Van.

Children's relations with friends and parents

Mothers' reports concerning the relationship their children have with friends in their immediate environment revealed that the children in Istanbul had more opportunities to play with their age-mates in comparison to the children from the other two provinces.

The information pertaining to the time the mothers spent with their children showed that when the mother and the child were alone together at home, most of the mothers carried out their own chores (80.6%) while their children played on their own. Only about one tenth of the mothers said they did something the child wanted to do, or played with the child. This finding indicates how little time is spent in direct contact with the child.

Thirty five percent of the mothers expressed that they showed their appreciation physically when their children did something that pleased them, and 26.8% said they showed their appreciation both verbally and physically. The mothers from Istanbul and Van preferred



showing physical affection, whereas the mothers from Diyarbakır chose to do so both verbally and physically. Fathers did not differ much from the mothers in their expression of appreciation, 34.4% preferred to do so physically and via material rewards. Compared to the other two provinces, the fathers from Diyarbakır were found to resort to material rewards more than showing physical affection.

When mothers were angered by their children's behavior, a majority reacted with physical (53%) or verbal (25%) punishment, whereas the fathers were found to resort to verbal punishment more frequently (38%). There was no difference between the three provinces in this respect.

Mother's reports have revealed that on the occasions the child asks the mother or the father a question when they were busy, only about half of the children receive an answer, 24% do not, and 17.6% are even punished verbally or physically. A ranking of the reactions to the child revealed no differences among the provinces. Fathers' reactions (as reported by the mothers) showed that 59% responded, 24% did not, and that 14% gave out verbal or physical punishment. The fathers who resorted to verbal and physical punishment the least were found in Van.

These findings are noteworthy in that they show that parents have adopted punishment as a disciplinary method, that children do not have an environment where they can simply chat with their mothers, and that when they ask a question they may not receive an answer, or even may be punished for it.

When asked to compare their own children with others, mothers said their children were better than other children they knew (60%). Mothers were observed to be happy with their children in all provinces. The mothers most satisfied with their children were in Van, followed by Istanbul and Diyarbakır.

Language used in the home

Half of the mothers have stated that they know a language other than Turkish. The language majority knows is Kurdish. In addition there are mothers who are speakers of Bulgarian, Circassian, Arabic, and Georgian. Findings show the highest proportion of bilingual mothers are in Diyarbakır and lowest in İstanbul. All the bilingual mothers in İstanbul have declared the first language of their children to be Turkish. Only one third of the mothers in Diyarbakır and two thirds in Van, on the other hand, have reported the first language of their children to be Turkish.

3.2 Results of the Teacher Interview

Assessment of the existing kindergarten education system

When the kindergarten teachers were asked whether the existing system answered the present needs, none of the teachers in İstanbul responded in the negative, although 25% of the teachers in Diyarbakır and 15.4% of the teachers in Van did so. Half of the teachers in İstanbul, and 58.3% and 46.2% of the teachers in Diyarbakır and Van respectively noted that their needs were being partially met.

When the kindergarten teachers were asked about the characteristics they thought an effective early childhood education facility should have, the responses that were most frequent were suitable physical conditions (86.1%), sufficient materials and tools (44.4%), and having trained supporting personnel (30.5%). All the teachers in Van and Diyarbakır



emphasized the suitability of the physical conditions, whereas this characteristic was noted only by 63.3% of the teachers in Istanbul. When tasked to assess the school they worked in, in terms of the characteristics they thought an effective early childhood education facility should have, teachers from all three provinces reported that they did not find their school to be adequate, the Istanbul teachers, nevertheless noted that they were able to find some of these characteristics in the schools they worked in.

More than half of the primary school 1st grade teachers (59.5%) stated that the existing kindergarten education did not meet the demand. In Diyarbakır, this percentage (76.9%) was much higher in comparison to the other two provinces (Istanbul: 41.7% and Van: 58.4%). Teachers mentioned financial difficulties and lack of materials and equipment (17.9%), poor education quality (14.3%), and inadequate training on behalf of the kindergarten teachers (14.3%) as the causes for this situation. Regarding the necessary characteristics an effective early childhood education facility should have, Istanbul (70%) and Diyarbakır (30.8%) teachers referred to information pertaining to school readiness, whereas those in Van stressed the importance of suitable physical conditions (41.7%) and having sufficient materials and equipment (33.3%). The latter two characteristics were not mentioned in Istanbul at all. The 1st grade teachers in Diyarbakır reported that the schools where they worked in were inadequate in terms of these characteristics, whereas Istanbul teachers were satisfied. As the reason for the inability of the existing system to reach the established targets, 28.6% of the Istanbul teachers stated that kindergartens were too few in number, 36.5% of the Diyarbakır teachers noted the language problem within their region, and 44.4% of the teachers in Van pointed to the lack of adequate care and attention on the part of the family.

Most of the 2nd grade teachers reported that the existing system did not meet the demand in their regions (Istanbul, 40%; Diyarbakır, 75%; and Van, 92.3%). In all three provinces, the primary reason for this was stated to be the scarcity of kindergartens. Additionally, the quality of the education and the training of teachers were noted to be below desirable standards in Istanbul, whereas inadequate material and physical conditions were mentioned in Diyarbakır and Van.

Among the 5th grade teachers, 30% of those in Istanbul said the system met the demand in their region, whereas 66.7% of those in Diyarbakır and 67.0% of those in Van reported the demand was met only partially. There were no teachers in Diyarbakır and Van who thought the demand was being met. Reasons for this were the low number of kindergartens, financial difficulties, and lack of parental awareness regarding the importance of a kindergarten education.

Inadequacies of kindergartens

The kindergarten teachers in all three provinces stated that they considered the physical conditions in their centers to be inadequate. They particularly stressed small classroom size, lack of separate activity areas, of child-size toilets and sinks, and of equipment and materials. In order to improve the physical conditions, they thought that it is necessary to have autonomous kindergartens, to allocate a larger budget to kindergartens for equipment and materials, and to inform the administrators about early childhood education.

Fifty three percent of the teachers expressed that they experienced difficulties in their daily activities due to physical constraints, insufficient equipment and materials, and lack of personnel. In all provinces, 33.3% of the teachers noted that they experienced difficulties in



program preparation as they did not have access to any target-appropriate curriculum, as well as the discrepancy between what they learned in school, and the existing program.

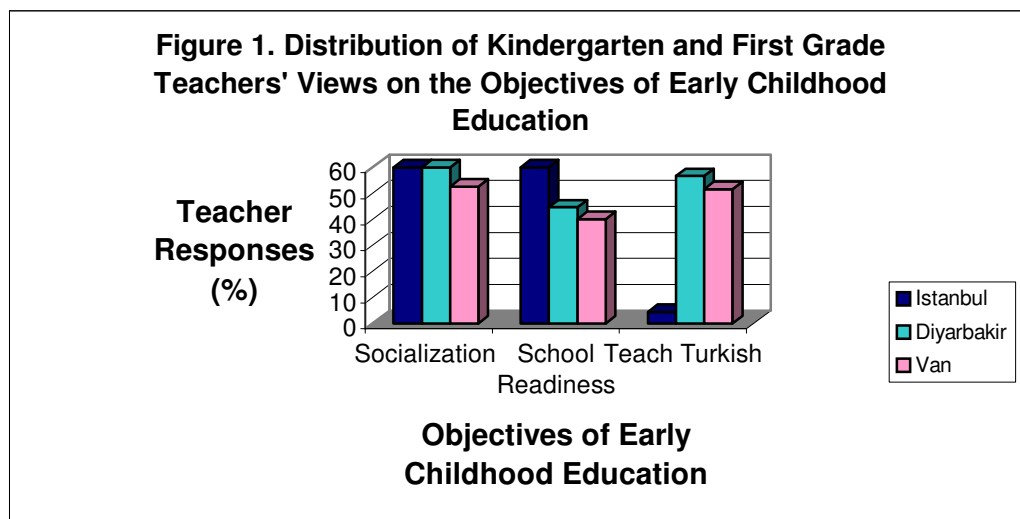
Information needed by kindergarten teachers

Differences between provinces were observed regarding the topics kindergarten teachers wanted to be more informed about. Majority of the teachers in Istanbul said they needed more information on curriculum planning, and on the content areas of science and nature, Turkish language, and pre-literacy preparatory activities (each at 90.9%), whereas in Diyarbakır, curriculum planning, free time activities, and child and program evaluation (each at 91.7%) came more to the fore. Teachers from Diyarbakır also referred to Turkish language activities, equipment and material construction and musical activities (each at 83.4%). In Van, teachers voiced their need to be better informed about equipment, material and toy construction, and garden organization (each at 84.6%), math-oriented activities, child program evaluation and free time activities (each at 76.9%).

When asked about the kinds of publications they followed, all teachers expressed a preference for activity-oriented publications (such as topical activities, dramatization and play). Those who did not follow such publications stated as their reasons, difficulties in obtaining the publications (41.7%), lack of time (37.5%) and lack of information about the publications (29.2%). Lack of time was put forth in Istanbul whereas lack of information about the publications and financial difficulties were noted in Diyarbakır and Van as to why the teachers could not follow the publications.

The objectives of early childhood education in the region

The question of what objectives early childhood education should have in that particular region received rather different answers in each province. Kindergarten and 1st grade teachers in Istanbul emphasized preparing the child for school and of teaching social skills as the goals of early childhood education, whereas the teachers in Diyarbakır and Van emphasized teaching Turkish in addition.



The model of early childhood education most suitable to the region

Of the kindergarten teachers, 81.1% stated that a center-based model was most suitable for their region (Van, 84.6%; Diyarbakır, 58.3%; Istanbul, 100%). A model targeting the education of mothers was considered most suitable by 45.9% of the teachers (Van, 46.2%; Diyarbakır, 58.3%; Istanbul, 33.3%), and as suitable by 46% (Van, 46.2%; Diyarbakır,



33.3%; Istanbul, 58.3%). Half of the 1st grade teachers in Istanbul thought that a center-based early childhood education model was appropriate, whereas majority of the 1st grade teachers in Diyarbakır and Van (61.5% and 66.7% respectively) thought the mother education model to be appropriate.

Measures for improving early childhood education

When kindergarten teachers were asked about what should be given priority in early childhood education, 44.4% of the teachers in all three provinces suggested increasing expert knowledge in the field, 30.6% mentioned raising the awareness of families about early childhood education, and 41.7% emphasized improving the physical conditions. The 1st grade teachers stated that priority should be given to the preparation of an appropriate program (35.1%), to increasing expert knowledge and training in the field (9.7%), and to raising awareness of the family about early childhood education (24.3%). In Van, making early childhood education mandatory and improving physical conditions were also mentioned among priorities.

Areas where administrators are supportive

When teachers were asked to evaluate the support they received from administrators on a 3-point scale, they said that the administrators supported them the most in structuring the educational environment (2.08), and the acquisition of equipment and materials (2.36), and the least in preparing (1.36) and implementing (1.50) the curriculum.

The teacher-student relationship

In all provinces, 1st, 2nd and 5th grade teachers all said that their classrooms were crowded and the number of children much above the ideal. They stated that a crowded classroom prevented interaction with the students on a one-to-one basis, thus making the discovery of their special interests impossible, and made it difficult to establish discipline, thus harming the learning environment.

Parent - school collaboration

In all provinces, 41.7% of the teachers said they held parent -teacher meetings once or twice, and 30.6%, three or four times in a year. They added that they had additional meetings when either they or the parents requested it (66.6%) or when the parents dropped by at the school (33.3%). The teachers said they collaborated with parents on issues concerning the acquisition /provision of educational materials (69.4%), the academic performance of the child and his or her behavior in school (41.7%) and about the significant events children were experiencing at home (41.7%). Collaboration was observed to be highest concerning the acquisition of educational materials in all three provinces.

Prerequisites for school readiness

When the kindergarten, and 1st, 2nd and 5th grade teachers were asked what skills a child who is about to start school should possess, in all three provinces they mentioned manual dexterity, ability for self-care and skills for social adjustment. Teachers from Diyarbakır and Van additionally said that children in their regions needed to have better developed skills to express themselves well.



Table 2. Proportion of kindergarten and primary teachers who expressed different types of skills for school-readiness

<i>All Provinces</i>	Kindergarten	1 st Grade	2 nd Grade	5 th Grade
Manual dexterity	72.2	75.7	50.0	51.4
School adjustment	55.6	54.1	27.8	37.1
Ability for self-care	61.1	51.4	30.6	42.9
<i>Diyarbakır-Van</i>				
Competence in self expression-Diyarbakır	41.7	38.5	58.3	16.7
Competence in self expression-Van	23.0	30.8	--	--

When asked whether or not their students were ready for school when they first started, 83.8% of the kindergarten teachers said that they had not been. They noted having observed a lack of manual dexterity (45.2%) and difficulties in adjustment to the school environment (38.7%) in all three provinces. Kindergarten teachers in Diyarbakır and Van referred in addition to deficiencies in language skills (54.4%). The teachers of the primary level also admitted to the fact that children had not been ready for school when they first started. The most important shortcomings expressed were again low level of linguistic competence, lack of manual dexterity, lack of social skills and difficulties in adjusting to the school environment.

Difference between children who attended kindergarten and those who did not

54.1 % of the 1st grade teachers stated that they had children who had attended kindergarten in their classrooms. These percentages were 66.7% in Istanbul, 50% in Van and 46.2 % in Diyarbakır. Istanbul teachers noted that children who had attended kindergarten learnt faster (75%), Diyarbakır teachers said that their manual skills were better developed (80%), and those in Van stated they were more used to the school environment (75%) as compared to children who came directly from home. Only one teacher in Diyarbakır and two in Van noted that their students who had attended a kindergarten had been able to resolve their language problems. This is not surprising since children who are likely to have low level of linguistic competence tend not to have the opportunity (economical means) to attend a kindergarten class.

60% of the 2nd grade teachers noted that they had children who had attended kindergarten in their classrooms. These percentages were 90.9% in Istanbul, 41.7% in Diyarbakır and 50% in Van. The differences voiced the most by Istanbul teachers were in developed manual skills and adjustment to the school environment. The teachers in Diyarbakır and Van said students who had attended kindergarten learned reading and writing skills much more easily, showed better school adjustment and that their language development was at a better level. In all provinces, the teachers noted that children who had attended kindergarten could use the Turkish language better, adhering to the rules of grammar, having a richer vocabulary, and thus a more expressive verbal power.

88.9% of the 5th grade teachers posited that kindergarten was effective in preparing a child for school. Teachers in Istanbul stated that in kindergarten, children learned sharing and working together (60%), were prepared cognitively for school (30%), and learned about the school environment and rules (30%). Diyarbakır teachers noted that kindergarten helped the development of manual skills (83.3%) and adjustment to the school environment and rules (50%). Finally, teachers in Van also noted that in kindergarten, children learned sharing and working together and got used to the school environment and rules (40%).



4. ASSESSMENT OF LEVEL OF LINGUISTIC COMPETENCE

The level of linguistic competence of 5-8 years old children was assessed by use of data obtained from three different language tasks. The number of children who were administered the three language tasks in each subject status category are presented below, in Table 3.

Table 3. Distribution of children by language tasks and subject status

	Peabody Picture Vocabulary Test	Narrative Production	Elicited Imitation	Total
Kindergarten	115	110	113	338
Home-care	109	108	110	327
1 st Grade	222	204	215	641
2 nd Grade	218	210	212	640
Total	664	632	650	1946

4.1 Demographic characteristics of the sample

The preschool group: Kindergarten vs. home-cared 5 to 6 year olds

As was noted earlier, the reason behind including kindergarten vs. home-cared children of the same age group in the sample was not to assess the effects of kindergarten education on children's language development but to find out about the differences between the needs and attitudes of mothers who did or did not send their children to kindergarten.

(AT->Since assessment of language tasks took place right at the beginning of the school year, it was not possible to assess the impact kindergarten education has on language development.) Indeed, an analysis of the data obtained from the mother interviews revealed that for these two groups, demographic characteristics of the family, in particular, the education level of the mother, were very different. In Istanbul and Van, the mothers of children attending kindergarten were found to have higher level of education than the mothers of children receiving home-care, however in Diyarbakır no difference was observed between the two groups in this respect (see Table 4). In Istanbul and Diyarbakır, the fathers of children attending kindergarten had a higher level of education than the fathers of children who received home-care, while in Van no difference was found between the fathers of the two groups. These results reveal that the children attending kindergarten came from families with higher levels of education.

Table 4. Distribution of the mothers of the kindergarten and home-cared children by education level

	Istanbul (%)		Diyarbakır (%)		Van (%)	
	Kindergarten	Home-care	Kindergarten	Home-care	Kindergarten	Home-care
Not literate	1.0	5.0	27.0	44.0	23.0	46.0
Primary school	45.0	82.0	29.5	33.0	43.0	35.0
Secondary school	16.5	5.0	11.0	6.0	11.0	3.0
High school	29.0	5.0	20.0	11.0	19.0	16.0
University	8.5	3.0	12.5	6.0	4.0	0



The data show that the income level of the families that send their children to kindergarten is higher in comparison to the families that provide home-care to their children. In all three provinces it was found that 50% of the families of the kindergarten group on average were in the upper second income bracket, whereas more than 68%, 83% and 75% the families of the home-care group in Istanbul, Diyarbakır and Van, respectively, were in the lower second income bracket.

The interviews conducted with the mothers of the 5-6 year olds revealed that only 2.6% of the families from the Istanbul sample, whereas 31% and 21.8% of the families from Van and Diyarbakır, respectively, were bilingual. None of the bilingual families in Istanbul declared that their first language was not Turkish. In the other two provinces, again majority declared that the first language of the children was Turkish (Diyarbakır: 69%, Van: 75%). The home-care group was found to differ in this respect: the first language of 76.9% of these children in Diyarbakır and 27.8% in Van was found to be Kurdish.

The primary school group: 1st, 2nd and 5th grades:

Findings pertaining to the education level of the mothers of the children constituting the primary school group of the sample are presented in Table 5. As can be observed, while about two thirds of the mothers in Diyarbakır and Van are illiterate, a corresponding proportion of the mothers in Istanbul are primary school graduates. Furthermore, about 25% of the mothers in Istanbul are graduates of either secondary or high school whereas only about 5% have achieved this level of education in the other two provinces.

Table 5. Distribution of the mothers of 1st, 2nd and 5th graders in terms of education level

	Istanbul (%)	Diyarbakır (%)	Van (%)
Not literate	12.0	69.2	62.7
Primary school	59.4	25.5	31.8
Secondary school	9.7	1.9	3.8
High school	16.6	3.4	1.3
University	2.3	0	0.4

Among the fathers, the proportion of those who are not literate was higher in Diyarbakır and Van (29.1% and 24% respectively) in comparison to Istanbul (5.2%). In all three provinces, the group that constituted the majority was found to be primary school graduates (Diyarbakır: 37%, Van: 38%, Istanbul: 54.3%). When considered in relation to the data of the kindergarten age children, these findings reveal that the education level of the parents of children attending primary school is lower than that of the families of the 5-6 year old age group in all three provinces.

Within the primary school group, 2nd and 5th graders who were asked to write a composition were also asked to indicate whether or not they spoke a language other than Turkish. The reports of the children showed that those who spoke a language other than Turkish were less than 10% for both grades in Istanbul, whereas in Diyarbakır these proportions were 52.8% for the 2nd grade and 73% of the 5th grade, and in Van, 70% for the 2nd and 71% of the 5th grade.

In summary, the groups constituting the sample differ on the basis of the following demographic characteristics: The second and first graders differ both in terms of schooling and age, whereas the first graders who had just started school and the home-care groups differ only in terms of age. The difference between the home-care and the kindergarten

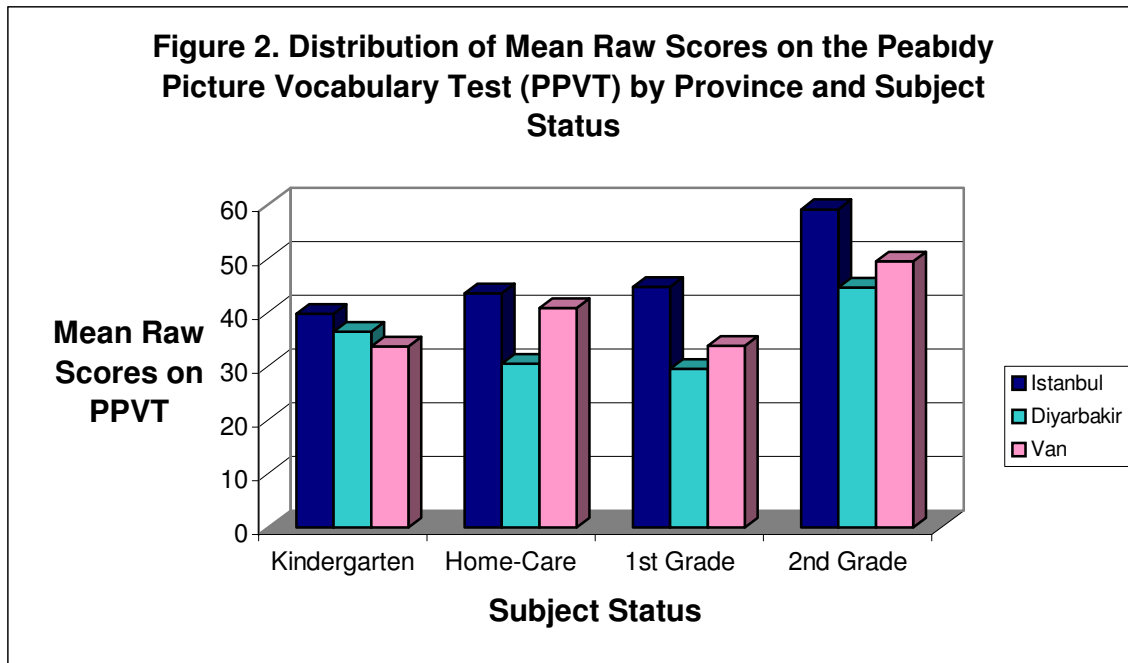


groups, on the other hand, is one of socio-economic/ environmental conditions. Finally, a much larger proportion of the children in the home-care group in comparison to the kindergarten group come from bilingual homes where Kurdish is the first language .

4.2. Analysis of the linguistic competence data

4.2.1. The Peabody Picture Vocabulary Test

The analysis of children's scores on the Peabody Picture Vocabulary Test by age/grade level (henceforth "subject status"), by province, and district (see Figure 2) revealed a significant difference between the children of Istanbul, Diyarbakır and Van, and children of different status.² At all levels of subject status, children from Istanbul displayed a higher level of lexical knowledge in comparison to children from Van and Diyarbakır. Second graders were found to have a more extensive vocabulary in comparison to the 1st grade, kindergarten and home-care children; the highest means belonged to Istanbul 2nd graders and the lowest to Diyarbakır 1st graders.



The fact that the average score of Diyarbakır second graders was equal to that of the Istanbul first graders is a striking indicator of the difference between provinces. Another remarkable observation from Figure 2 is that there is a linear increase with age only in the Istanbul data. In Diyarbakır, 1st graders obtained lower scores than the kindergarten and home-care groups, while the scores of the 1st graders in Van was equal to those of the kindergarten group.

The data were analyzed also in terms of the different counties in the provinces. The findings show that in Istanbul, children from the district of Umraniye obtained lower scores than the children from the Avcılar and Fatih districts. In Diyarbakır, no difference was found between counties. In Van, the average score of the Gevas district was found to be higher than the

² Depending on the characteristics of the variables, the data was analysed using the ANOVA, MANOVA, X² and Kolgomorov Smirnov tests. . Only those findings that are statistically significant at $p < .05$ are presented. For more detailed information see Early Childhood Education in Turkey: Needed Assessment and Evaluation of Linguistic Competence in Three Provinces, Final Report, January 2002 (*Türkiye’de Okul Öncesi Eğitim Araştırması: Hizmette Duyulan İhtiyaçların Belirlenmesi ve Çocuğun Dil Yetisi Düzeyinin Değerlendirilmesi*, Sonuç Raporu , Ocak 2002).



Muradiye and Merkez districts. In all the districts of all the provinces, 2nd grade children were found to be superior to children of other grade levels in terms of lexical knowledge. The fact that one county in both Istanbul and Van yielded results different from the other two shows that the samples drawn from these two provinces represent a certain amount of variability within the targeted limits. In the same vein, the lack of such a difference between the Diyarbakır counties indicates the lack of variability in lexical knowledge.³

In summary, with regard to the level of lexical knowledge, the three provinces may be ranked as Istanbul, Van and Diyarbakır. In terms of subject status, 2nd graders in all three provinces obtained the highest scores. The fact that 2nd graders received strikingly higher scores in all three provinces reflects the impact schooling has on lexical knowledge.

The raw scores obtained in the Peabody Picture Vocabulary Test were transformed into the linguistic age norms for urban children (Katz, Onen, Demir, Uzlukaya & Uludag, 1974) in order to be determine the relative standing of the children in terms of lexical knowledge.⁴ The data is presented in Table 6.

Table 6. Distribution of children's mean linguistic age (according to urban norms) on the Peabody Picture Vocabulary Test by province and subject-status

	Kindergarten	Home-care	1 st grade	2 nd grade
Istanbul	5;3	5;8	5;10	7;5
Diyarbakır	4;10	4;0	4;0	5;10
Van	4;7	5;4	4;7	6;3

The table reveals that the Istanbul children were close to their age norms in terms of lexical knowledge, whereas the Diyarbakır and Van children were below them. Assuming that a child just starting first grade is six years old, Diyarbakır first graders are seen to be 4 years old in terms of lexical knowledge, whereas Van children are 4 years 7 months old.

4.2.2. Narrative production

The narratives elicited by use of six sequentially ordered pictures depicting a story were analyzed in terms of their linguistic and structural characteristics:

- (a) *Linguistic characteristics*: To determine text length, total number of words and total number of clauses (a structural unit containing a predicate) were used as two different indices. To determine level of complexity, the total number of subordinate clauses, and the number of different types of subordinate clauses (adverbial, complement, relative and direct speech clauses) were identified.
- (b) *Structural characteristics*: each narrative text was coded for the presence of the following plot-components (i) beginning, (ii) development and (iii) resolution, as well as for the type of discourse it represented: *labeling* (naming the objects in the picture), *labeling and picture description* (combination of describing each picture and naming the objects represented), *picture description* (describing each picture as a single entity), *storytelling via picture description* (combination of describing each picture and linking some aspect of

³ For the following linguistic tasks, analyses were carried out for several dependent variables. Since the aim of the present research was not to determine differences across districts, further comparisons between districts, within provinces were not conducted.

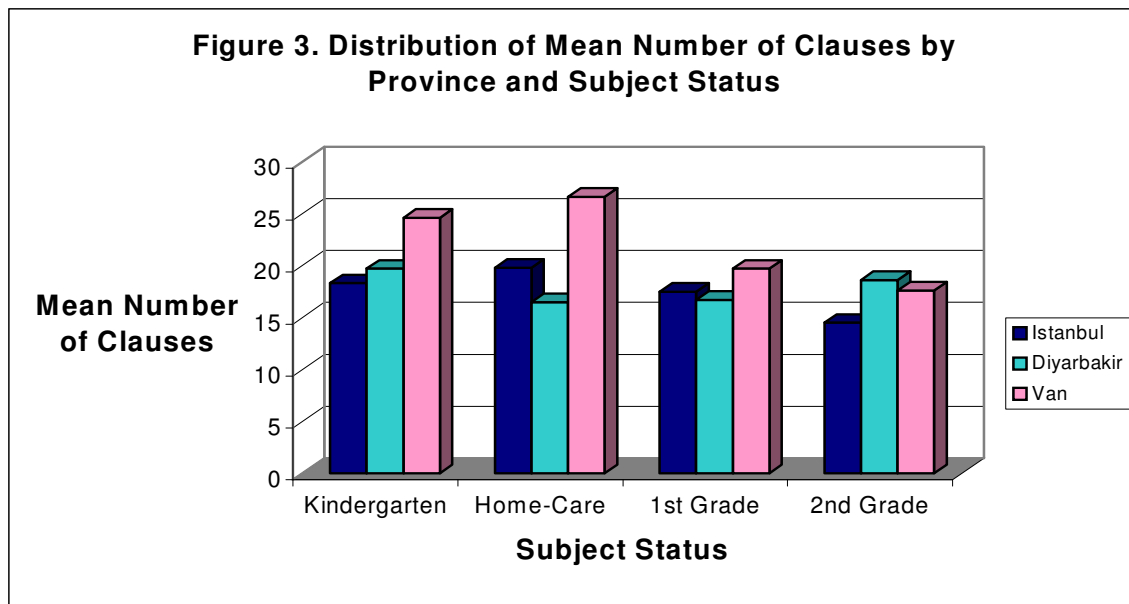
⁴ The norm tables of the PPVT were constructed on the basis of data from urban, shantytown and rural children in 1974. It was thought that children's lexical knowledge would have developed in the thirty years that have passed since then due to mass communication tools such as television, and thus a decision was made as to use urban norms.



it to the next picture, reflecting an awareness of some continuity of events) or *pure storytelling* (linking and describing the pictures within a structural framework of a plot).

(a) Linguistic characteristics of the narratives: analyses in terms of number of words, clauses and subordinate clauses

Among the three provinces, the children in Van produced the longest narratives in terms of the number of words and clauses used. Among different age groups, the narratives of the 5 to 6 year old home-care groups were found to have more words than those of the 1st and 2nd graders. Furthermore, the narratives of 5 to 6 year olds attending kindergarten incorporated more words than those of 1st graders, and more subordinate clauses than those of the 2nd graders. The fact that the highest number of words was found in Van, and that the 5 to 6 year old group unexpectedly produced longer narratives in comparison to school children is explained when one takes into consideration the variable of experimenter probing. An analysis of the frequency of the experimenter's probes and questions to the child during the storytelling process revealed that experimenter probing occurred most frequently in the collection of the Van data, in the home-care and kindergarten groups, and in the context of 'picture description' as discourse type.



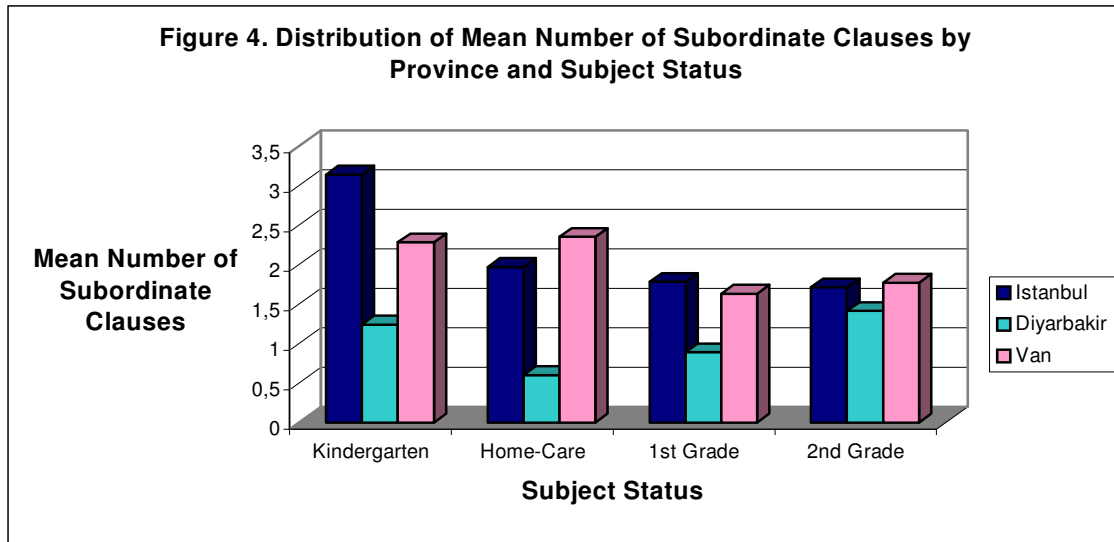
A comparison of the mean number of subordinate clauses used in the narrative revealed that while Istanbul and Van texts were similar in this respect, the mean value for Diyarbakir was lower than both. It was also found that the kindergarten children used more subordinate clauses in their narrative texts than 1st graders.

Analyses for the type of subordinate clause revealed that adverbial and complement clauses were used with approximately the same frequency, whereas direct speech and particularly relative clauses were used much less.⁵ This difference in the frequency of use of different clause types may be explained by the fact that the use of the latter two types was not really functionally meaningful for telling the story in the particular pictures used. The mean number of adverbial clauses was comparable in Istanbul and Van, but significantly lower in Diyarbakir. In terms of subject status, the lowest mean was observed in the 1st grade

⁵ Some subordinate clause examples taken from the narratives: adverbial clause: *The birds are sitting while the cat has climbed the tree*; complement clause: *And the dog is trying to eat the cat's tail*; relative clause: *The chirping chicks are waiting for their mother*; direct speech clause: *The mommy bird said "I'll be back in a little bit."*



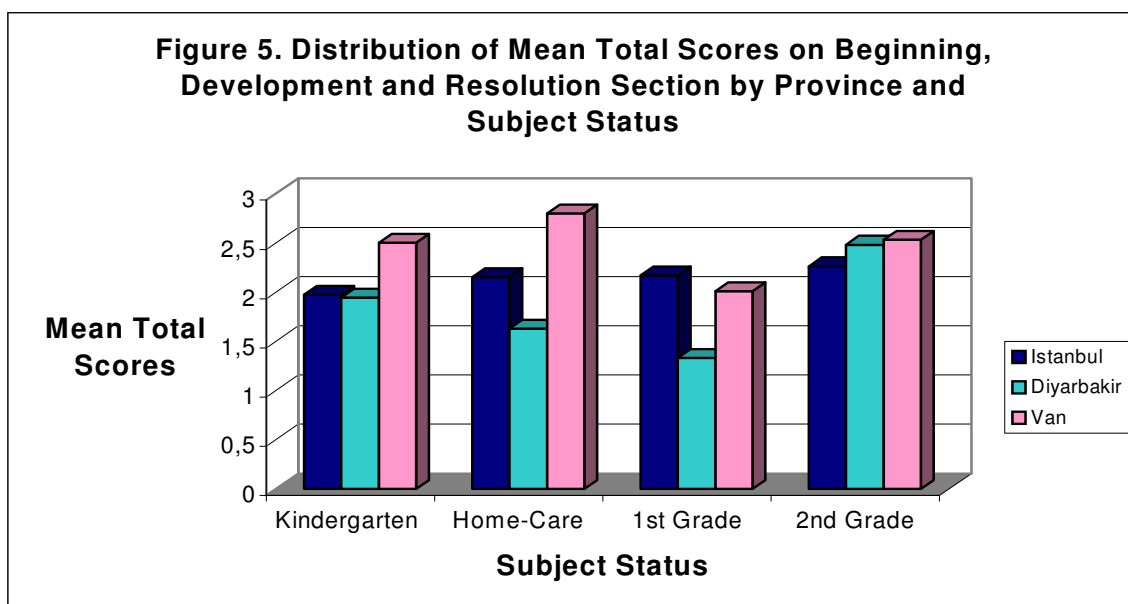
narratives, and the difference between the 1st and 2nd grades was statistically significant. The frequency of complement clauses was higher in Istanbul and Van narratives in comparison to Diyarbakır, but no difference was found in relation to subject status. Since the mean frequencies of direct speech and relative clauses were very low, no further analyses were carried out.



In summary, the highest number of words and clauses were found in the data from Van. However, the number of subordinate clauses - which is the linguistic indicator of structural complexity of the narratives - did not differ in the Istanbul and Van texts, but was much lower in the Diyarbakır. Moreover, it was found that the kindergarten children who were from relatively more educated families, used more subordinate clauses than the 1st graders.

(b) Discourse organizational characteristics of the narratives: analysis of plot structure (beginning, development and resolution)

Children's stories were analyzed to see to what extent they showed the basic components of a plot, that is, a beginning, a development and a resolution section. It was observed that the texts produced by the Diyarbakır children were weaker than those of the Istanbul and Van children. The narratives that included the highest proportion of the structural sections as measured on a scale of 0 to 6 came from the 2nd graders, and the narratives that included the lowest proportion of the structural sections came from 1st graders. The group that performed the lowest in this respect was the Diyarbakır 1st graders.



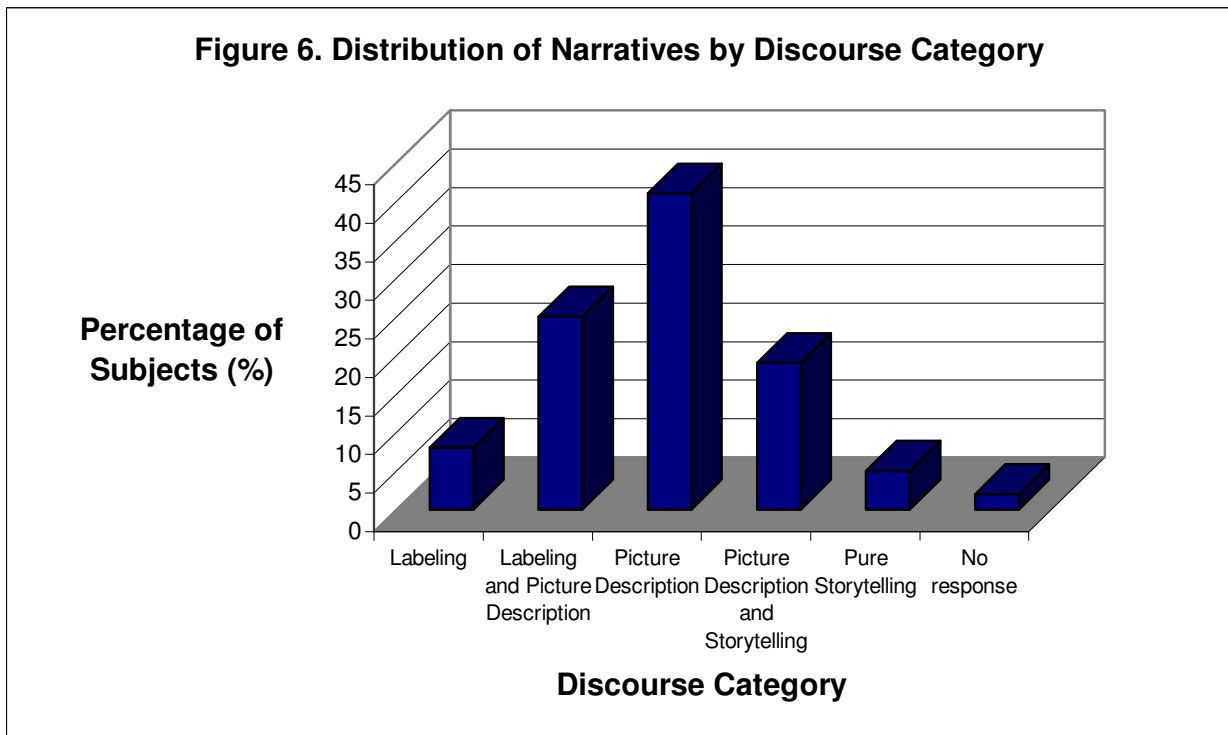


(c) Discourse characteristics of the narratives: labeling, picture description or storytelling?

An analysis of children's narratives in terms of their discourse characteristics revealed that they could be classified into the following categories, ordered in terms of increasing complexity: *labeling*, *labeling and picture description*, *picture description*, *picture description and storytelling* or *pure storytelling*.

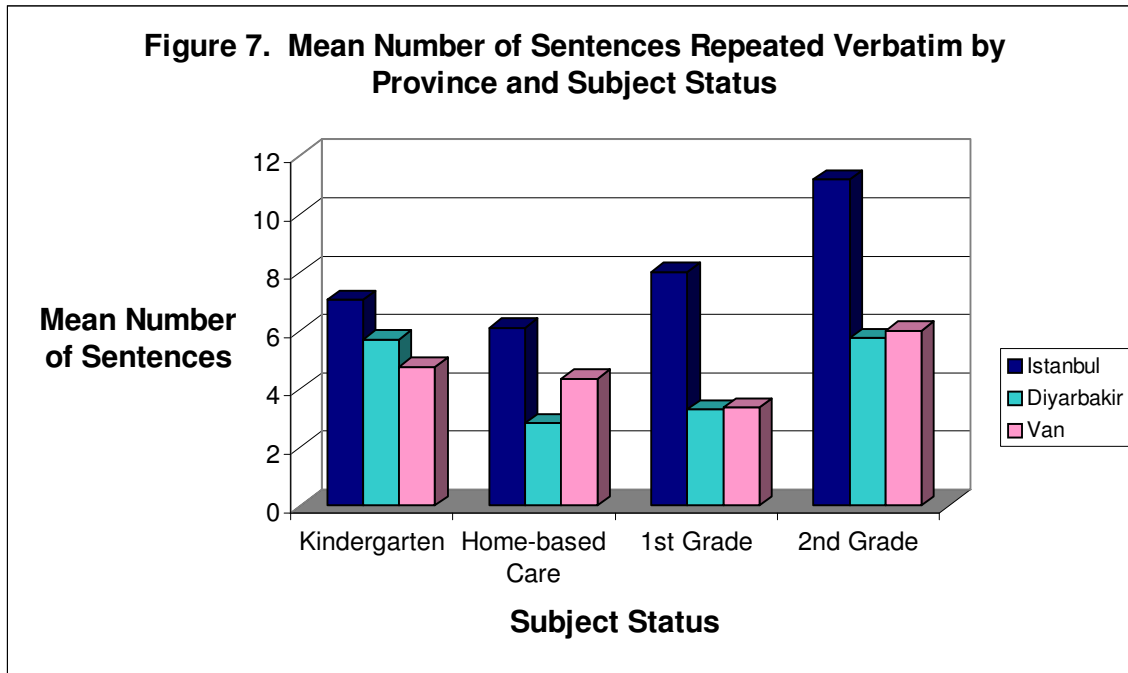
It was found that majority of the children produced *picture descriptions* rather than *stories*. The fact that the discourse type second-most utilized by the children was *labeling* shows that the narrative skills of a large majority of the children in our sample has not yet developed fully. There was not difference between the three provinces in this respect.

The 2nd grader and kindergarten children were found to be more sophisticated than the 1st graders since they produced more developed narratives which involved storytelling via picture description or pure storytelling. Narratives that came closest to storytelling were observed in the Diyarbakır 2nd graders.



(d) Interactions between linguistic and discourse characteristics of the narrative texts: the relationship between total number of clauses, subordinate clauses, and discourse type

First, the discourse categories identified in children's narratives were reduced to the following two groups (i) *picture description* (labeling, labeling and picture description, and picture description) and (ii) *storytelling* (storytelling via picture description, and pure storytelling), then its relation with total number of clauses was investigated. It was found that, among the three provinces, Van had the longest narratives with highest number of clauses, in among the different subject groups, kindergarten and home-care children were the ones who produced the longest narratives. In terms of discourse type, highest number of clauses was found in pure stories. The highest mean number of clauses was observed in the *stories* of the Istanbul kindergarten children and the Van kindergarten, home-care and 1st grade children.



Comparisons between provinces show that the narratives of the Diyarbakir children contain the lowest number of subordinate clauses, and comparisons in terms of subject status reveal that the narratives of the kindergarten children contain more subordinate clauses than the narratives of the 1st graders. Highest number of subordinate clauses was found in *pure storytelling* as discourse type, in the stories of Istanbul kindergarten children, followed by Van home-care children. These findings show that children who are able to talk about the temporal-causal relations between events in the story are able to make use of complex grammatical structures in order to express these links.

4.2.3. Elicited imitation

In order to identify which linguistic structures children have internalized, and which have not yet become a part of their syntactic system, the data consisting of repetitions of 20 stimulus sentences were examined in two main categories in order to determine the following parameters for each child:

- I. Response Type: Number of model sentences (a) not repeated at all, (b) repeated verbatim, and (c) repeated with modification.
- II. Type of Modification: The changes made in the sentences repeated with modification, were classified according to these sub categories: (i) *sentence with no change in meaning*, (ii) *ungrammatical sentence*, (iii) *incomplete sentence*, (iv) *subordinate clause reduction*, (v) *change in sentence type*, (vi) *simplification*, (vii) *focus change*, (viii) *meaning change*.

(a) Distribution of sentences not repeated at all, repeated verbatim, and repeated with modification by province and subject status

The total number of clauses repeated verbatim, that is, correctly, is significantly higher in Istanbul than in Van and Diyarbakir, where the means obtained were similar. In terms of subject status, the second graders performed on a level significantly higher than the other groups and the Istanbul 2nd graders obtained the highest mean values.



An examination of the distribution of sentences not repeated at all, or repeated with modification once again reveals that the Istanbul sample performed better. While the number of sentences that were not repeated at all is significantly lower in Istanbul than in the other provinces, the performance of 2nd graders is significantly higher than that of the 1st graders.

Again, the number of sentences repeated with modification is the lower for Istanbul as compared to the other two provinces, for the 2nd graders as compared to all the other groups, and for the kindergarten group as compared to the home-care group. The lowest number of sentences repeated with modifications was again observed in the data gathered from Istanbul 2nd graders.

Table 7 shows the extent to which each of the 20 sentences used in the elicited imitation task is repeated verbatim, is not repeated at all, or is repeated with modification. It is observed that 8 out of the 20 sentences were repeated verbatim by less than 25% of the subjects, whereas only 2 sentences were repeated verbatim by more than 50%. The lowest rate of verbatim repetition was found to be 6.3% (sentence 4), while the highest rate was at 65.6% (sentence 5). The proportion of subjects who did not repeat the sentence at all varied between 1.1% (sentence 1) and 15.3% (sentence 4). The strategy employed by the children most often in this task was to modify and imitate the sentence. Such modified repetitions were the lowest at 19.8% (sentence 5) and highest at 85.2% (sentence 14).

Table 7. Proportion of no repeat, verbatim repeat and repeat with modification responses for each sentence, for all provinces

Sentence	Not repeated	Repeated verbatim	Repeated w/ modification
1. My father will buy a car and take us for a ride.	1.1	41.3	57.6
2. The weather is not as hot as it was last year.	4.0	14.4	81.6
3. When I start going to school a uniform will be bought for me.	3.1	24.6	72.3
4. The naughty girl and her sibling were chasing Ahmet a little while ago.	15.3	6.3	78.4
5. Who wakes you up every morning?	14.6	65.6	19.8
6. As soon as the weather let up we would go outside and play.	4.0	26.0	70.0
7. We were going to go to my aunt's but couldn't because we had guests.	4.8	19.0	76.3
8. If the cat can't catch the mouse we will have to set up a trap.	11.2	13.8	74.9
9. Your father had promised to buy you a bicycle?	8.5	26.3	65.2
10. My grandmother really enjoys telling us stories.	8.8	33.4	57.8
11. Everybody should brush their teeth after eating.	3.4	30.9	65.7
12. I have always liked pasta more than	4.0	15.9	80.1



spinach.			
13. The little child fell even though s/he was being careful.	3.4	33.3	63.3
14. There are girls and boys playing ball in the school yard.	4.8	10.0	85.2
15. Ayse couldn't go into the sea because she doesn't know how to swim.	3.2	24.5	72.3
16. I would like my mother to buy me ice cream every day.	1.8	34.8	63.3
17. Everybody loves the pies my mother makes.	2.9	54.3	42.7
18. What would you do if your brother/sister broke your toy?	9.6	39.5	50.9
19. We hung the laundry out on the line in the garden so that it would dry.	10.9	31.9	57.2
20. Is it possible to go into town on foot from here?	10.8	41.0	47.9

The rather low proportion of verbatim imitations (which indicates productive competence), may be due to the degree of difficulty of the grammatical structures for the age group tested, as well as to the difference between children in terms of level of linguistic competence. The relatively high proportion of repetitions with modification shows that the children understand the model sentence but change those structures that are not yet a part of their internalized grammars with simpler ones. Finally, the inability to repeat the sentence at all suggests that the child does not understand the sentence enough even to imitate it by modifying it.

(b) Analysis of the types of change resulting from the imitation of the model sentence with modification

Examples of the types of change resulting from repetition with modification either by excluding part of the model sentence (deletion), or by making an addition to it (insertion), or by replacing a part with something else (substitution), are presented below:

(i) *sentence with no meaning change:*

Model sentence: *My father will buy a car and take us for a ride.*

Modification by deletion: *My father will buy a car () take us for a ride.*

(ii) *ungrammatical sentence:*

Model sentence: *If the cat can't catch the mouse we will have to set up a trap.*

Modification by deletion, insertion and substitution: *If the cat can't set the mouse it will go.*

(iii) *incomplete sentence:*

Model sentence: *The naughty girl and her brother/sister were chasing Ahmet a little while ago.*

Modification by deletion: *The naughty sister...*

(iv) *subordinate clause reduction:*

Model sentence: *Is it possible to go into town on foot from here?*

Modification by subordinate clause reduction: *Is it possible to go into town () from here?*

(v) *change in sentence type:*

Model sentence: *Is it possible to go into town on foot from here?*

Modification by deletion and substitution: *It is not possible to go into town from here.*

(vi) *simplification:*

Model sentence: *I have always liked pasta more than spinach.*

Modification by deletion and substitution: *I () like(d) pasta more than spinach.*

(vii) *focus change:*



Model sentence: *I would like my mother to buy me ice cream every day.*

Modification by change in word order: *Every day, I would like my mother to buy me ice cream.*

(viii) **meaning change:**

Model sentence: *My grandmother really enjoys telling us stories.*

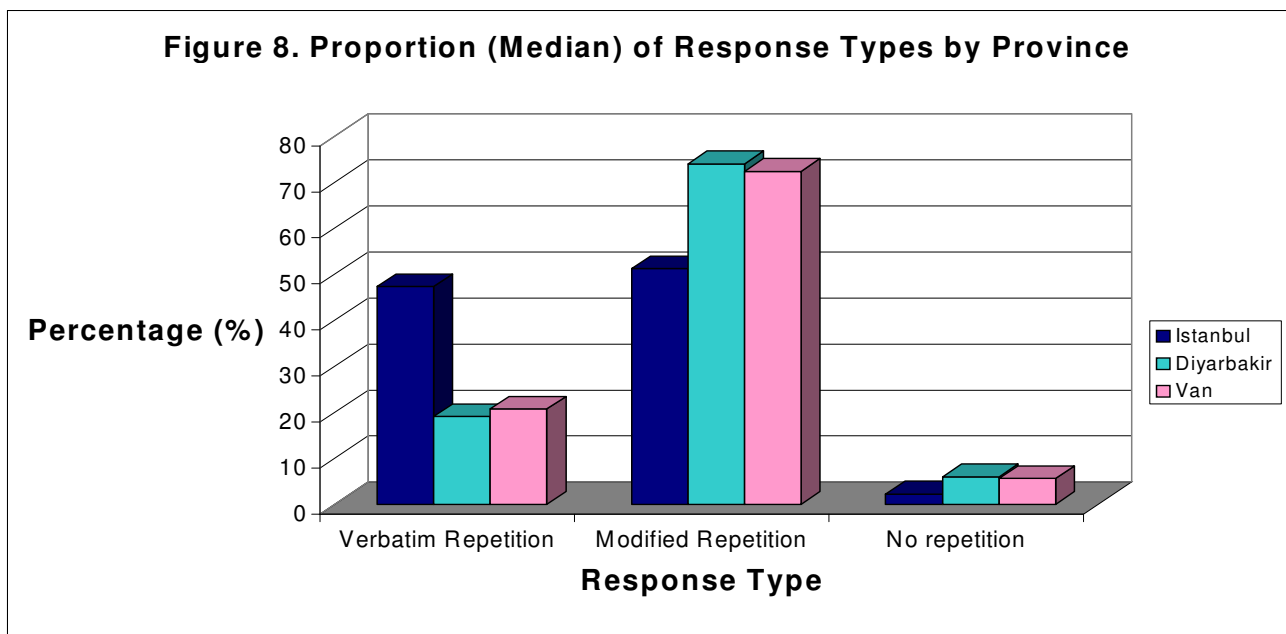
Modification by deletion and substitution: *My mother really likes to tell us stories.*

Among the sentences repeated with modification, the modification types employed the least were *Focus Change* (ranging between 0.2% and 8.5%) and *Meaning Change* (ranging between 2% and 18.5%). *Change in Sentence-type* was observed in only 13 sentences, and was highest for sentence number 9 (27.2%). The more striking findings are the high proportions observed in the types of modification resulting in *Subordinate Clause Reduction* (ranging between 0.2% and 32.3%), *Incomplete Sentence* (ranging between 1.1% and 35.5%) and *Ungrammatical Sentence* (ranging between 2.2% and 34.8%). These modification types, observed particularly for certain sentences, clearly show which grammatical structures the children have difficulty reproducing.

(c) Distribution of response types given to each sentence by province

The proportion of different response types (sentences not repeated at all, repeated verbatim, and repeated with modification) that were obtained for each sentence in each province were calculated. The sentences were then ranked from the highest to the lowest in each category in order to identify the level of difficulty of the structures they incorporated. A closer look at the characteristics of the sentences that were repeated verbatim the least, or were modified the most, revealed that these were semantically complex sentences (such as comparative structures) and/or included more than one subordinate clause.

Although, as would be expected, the ranking of the sentences in terms of difficulty level showed similarities across provinces, differences were observed in the median values and range of the proportions of verbatim repetition, repetition with modification and no repetition responses. (see Figure 8).





In terms of the proportion of verbatim repetitions Istanbul ranks first, Van second and Diyarbakır third. The proportions of modified repetition responses are highest in Diyarbakır and lowest in Istanbul. The highest proportion of sentences not repeated at all are observed in Diyarbakır, and the lowest in Istanbul. These findings show that there is no difference between the three provinces in terms of the grammatical structures children had difficulty repeating, although the proportion of children experiencing this difficulty was higher in Diyarbakır and Van compared to Istanbul. These findings, then, indicate that the level of syntactic competence in Turkish achieved by Diyarbakır and Van children is relatively lower than that reached by İstanbul children.

The proportion of verbatim repetition, modified repetition and no repetition responses the children provided for each sentence were also examined according to subject status. An increase in the proportion of verbatim repetition, reflecting grammatical development by age is observed in Istanbul. In Diyarbakır and Van, however, the gains with age are observed only in conjunction with schooling, that is, only for the second graders. The fact that there was no difference between the home-care group and the first graders in these provinces indicates that these children are not experiencing age-related development in terms of their grammatical competence in Turkish. Furthermore, in all three provinces, the kindergarten children produced higher rates of verbatim repetitions than did their peers in the home-care group.

The rates of modified repetition, on the other hand, drop in Istanbul by age and schooling. In Diyarbakır and Van, however, the proportion of children producing modified responses are similar and much higher than those in Istanbul. Another observation is that in Diyarbakır and Van, there is almost no difference between the home-care and the first grade groups who produced higher rates of modified repetitions in comparison to the kindergarten children. In Diyarbakır, even the second graders are observed to fall behind the kindergarten group.

The proportion of no repetition responses which were in general very low, decreased in Istanbul with age. In Diyarbakır and Van, the highest proportion of this response type was observed in the home-care group, followed by 1st graders. In all three provinces, the level of grammatical competence displayed by the kindergarten children is higher than that of their peers in the home-care and even the first grade groups. As will be remembered from the data on demographic characteristics, the families of the children attending kindergarten have a relatively more advantageous economic background, and the education level of the parents is higher. The fact that such conditions have a positive impact on linguistic development has once again been observed within this sample.

(a) Analysis of imitation with modification responses for each sentence by province and subject status

The sentences that were imitated with modification were examined under four sub-categories:⁶

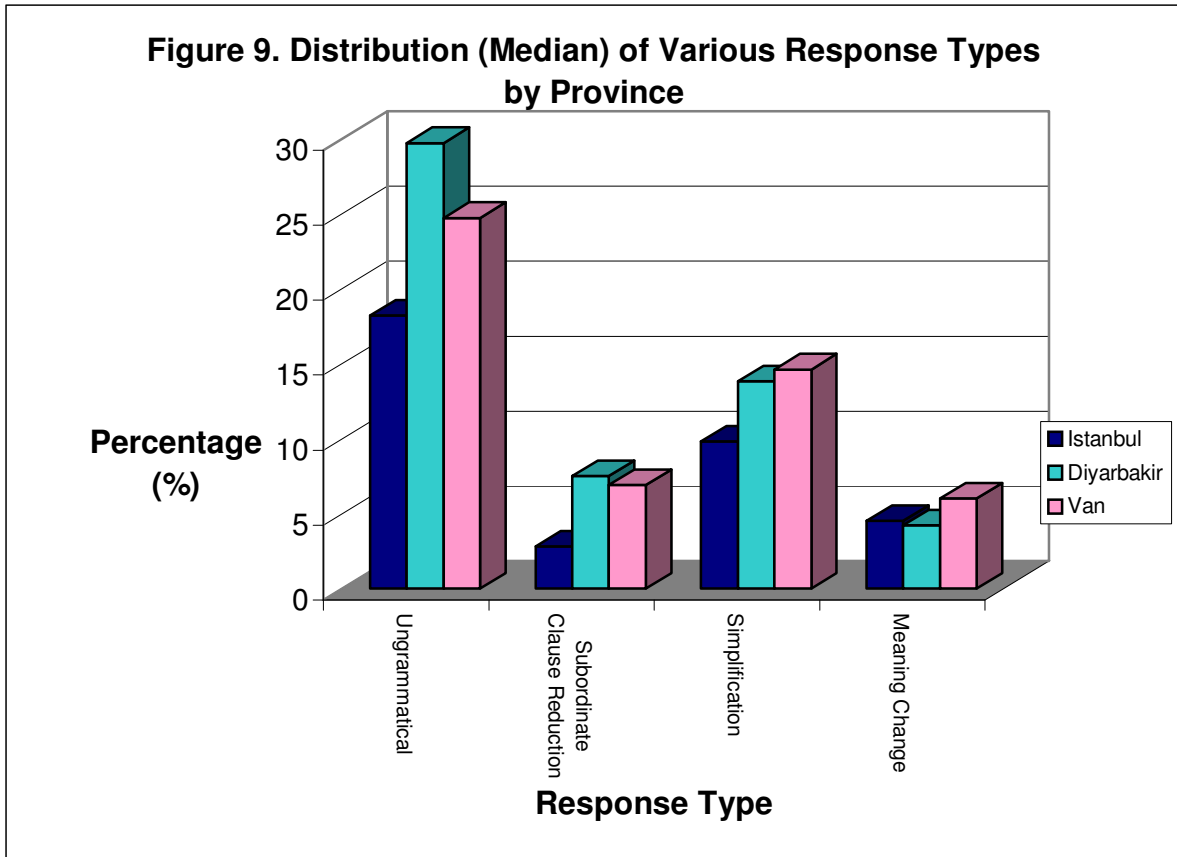
- a) Sentences that are *ungrammatical* or *incomplete*,
- b) Sentences that undergo meaning change as a result of *subordinate clause reduction*,
- c) Sentences that are *simplified* as a result of the deletion at least one morpheme (excluding the subordinate clause); such simplifications may result in change in the meaning of the sentence,

⁶ Since the proportion of modified repetition sub-categories incorporating *change in sentence type* and *focus change* were low, these categories were not examined any further.



- d) Sentences that undergo *meaning change* as a result of an operation other than those identified above (such as changing a word or a suffix or change in word order).

A comparison of the three provinces revealed that imitations with modification resulted in the highest proportion of ungrammatical sentences in Diyarbakır, followed by Van and least of all in Istanbul (see Figure 9).



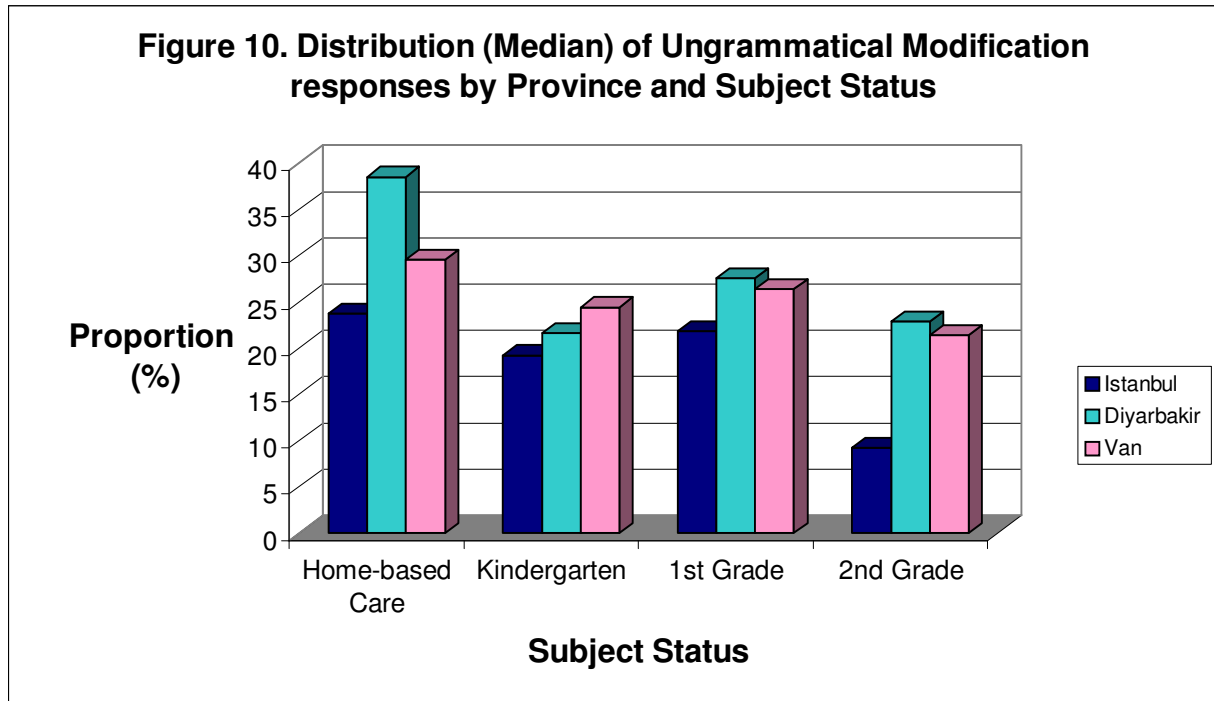
The proportion of modified repetitions resulting in subordinate clause deletion is also highest in Diyarbakır, followed by Van and then Istanbul. Highest proportion of repetitions resulting in simplification were observed in Van, followed by Diyarbakır and least of all in Istanbul. The proportion of sentences that underwent only meaning change were again highest in Van, followed by Istanbul and the least in Diyarbakır.

If a child's imitation yields a sentence that is ungrammatical or incomplete, or results in the deletion of a subordinate clause that is part of the sentence, this means that the child has not fully internalized or does not know the given grammatical structure. In cases where modification results in simplification, it can be assumed that the child does understand the sentence, albeit with difficulty, but does not have sufficient command over the grammatical structures in the sentence to reproduce them. As can be seen in Figure 9, a higher proportion of Diyarbakır children, when reproducing sentences incorporating structures they had difficulty with, produced ungrammatical versions, whereas a lower proportion produced sentences that were just simplified or changed in meaning. The proportion of simplification and meaning change responses, which in fact indicate a higher level of syntactic competence, were similar for Diyarbakır and Van. Istanbul children, on the other hand, compared to the other two provinces, produced the ungrammatical and simplification response types to a lesser rate. In summary, the findings reveal that Istanbul children's syntactic competence in Turkish is more developed in comparison that of Diyarbakır and Van



children, and that the children from Van, in turn, have a higher level of syntactic competence than children from Diyarbakır.

The percentage of the children who modified the sentences as they repeated them in the four ways described above was also analyzed according to age. The data from all three provinces reflect gains by schooling. The proportion of children whose imitations were ungrammatical



was lowest for the second graders, somewhat higher for the first graders and the highest for the home-care group. Kindergarten children performed better both in comparison to their peers in the home-care group and to children a full year older and beginning primary school. The relatively lower proportion of ungrammatical sentences of the first graders reflects the effects of age (see Figure 10). The lowest proportion of subordinate clause reduction and simplification responses were observed among second graders in Istanbul and Van; in Diyarbakır, lowest rate of subordinate clause reduction was observed in the kindergarten group and simplification among the first graders. The proportion of children reproducing sentences with only a change in meaning (a more sophisticated modification response) was lowest for the home-care groups in Diyarbakır and Van, that is for children who are not only younger, but also from socio-economically less advantageous environments.

In summary, the findings show that the level of Turkish syntactic competence of the kindergarten groups in Diyarbakır and Van is more developed in comparison to the other groups in these provinces. This finding may be explained by the fact that children attending kindergarten come from families who have a relatively more advantageous socio-economic standing. In Istanbul, however, the levels of syntactic competence of kindergarten, home-care and first grade children were found to be very similar, and it is only in this province that a linear development expected by age is observed. The performance of the second graders in all three provinces has revealed that age and a year of schooling have a significant effect on children's levels of syntactic competence in. However, the fact that the Diyarbakır and Van second graders have not yet reached the level of linguistic skills achieved by Istanbul second graders leads to the conclusion that this difference may partially be due to difference in the general environmental conditions of the respective provinces. In conclusion, the syntactic competence of children from Diyarbakır and Van is at a lower level in comparison to the



Istanbul children. This finding is due partially to the fact that a great majority of the Diyarbakır and Van children are bilingual, in addition to the fact that the economic and education levels of the families in the region are lower than that of families in Istanbul.

4.2.4. Composition data

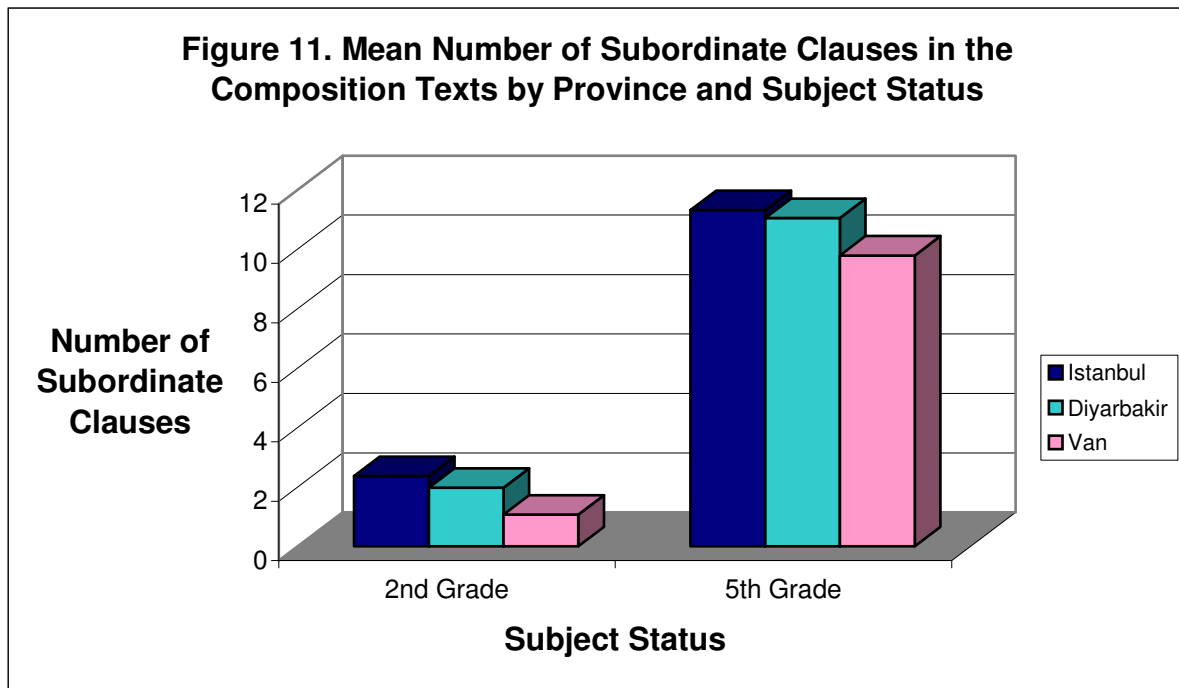
In order to assess the level of literacy achieved at two different points in primary education, data were obtained by having second and fifth grade students write a composition on the subject 'The child who was always losing something'. This data were coded and analyzed as described below:

- (a) *Text length and types of sentences used*: Text length was calculated as the sum of total number of simple and subordinate clauses. This sum is referred to as total number of *clauses*. For the assessment of complexity, total number and the types of subordinate clauses (adverbial, complement, relative and direct speech clauses) were examined.
- (b) *Grammatical errors*,
- (c) *Spelling and punctuation errors*,
- (d) *Plot structure and coherence*

(a) Text length and types of sentences used:

There was no difference in the length of the compositions across the three provinces. However, there was a significant difference between the second and fifth graders in this respect, reflecting the effects of age and schooling. While the second graders wrote texts constituted of 10 clauses on the average, fifth graders produced texts three times as long.

The frequency of subordinate clauses are used in the compositions, an indicator of syntactic complexity, also showed an increase by age and schooling: there were five times as many subordinate clauses in the texts of the fifth graders compared to the second graders. There was a statistically significant difference between Istanbul and Van in this respect; as seen in Figure 11, Van means are lower than Istanbul means.





An examination of the types of adverbial, relative, complement and direct speech clauses revealed that there was no difference in the frequency of adverbial and relative clauses across provinces, but that their use increased as a function of age and schooling. There was, however, a difference in the frequency of complement and direct speech clauses, both between provinces and age groups. The proportion of complement clauses was higher in Istanbul in comparison to Diyarbakır, and the proportion of direct speech clauses was higher in Diyarbakır than in Van. The interesting point here is that in Diyarbakır the proportion of complement clauses was the lowest whereas the proportion of direct speech clauses, which are basically simpler structures that fulfill the same function, were the highest. This finding shows that the bilingual Diyarbakır children avoid using complex structures they have not yet fully internalized, and realize the same discourse function with better mastered simpler structures. Conversely, in Istanbul the exact opposite was observed; the proportion of complement clauses was the highest while the proportion of direct speech clauses was low.

(a) Grammatical errors

Grammatical errors were examined under the agreement (subject-predicate agreement and possessive suffix agreement), infix (passive, causative, reflexive and reciprocal suffixes), tense-aspect, syntax and case suffix categories. All the errors observed within these categories were found to increase with age. This finding may be explained by the fact that with age, there is an increase both in the length of the texts and the complexity of grammatical structures used. There was a difference in syntax errors between the three provinces: the proportion of errors was lower in İstanbul than in Diyarbakır and Van. The errors within this category include the mistakes in the use of the subordinate clause types discussed above.

These findings of lower proportion of use of subordinate clauses, and of higher proportion of errors related to subordinate clauses in Diyarbakır and Van in comparison to İstanbul show that these structures have not been fully grasped by the children in these regions.

(b) Spelling and punctuation mistakes

There was a decrease in punctuation errors with age. The proportion of punctuation errors made by the İstanbul children was found to be less than that of the children in the other two provinces.

The spelling mistakes were examined under the following categories: omitted letter, wrong letter, errors of sound change, suffix written separately and conjunction written attached. Table 8 presents the proportion of children who made spelling mistakes by province and by age.

Table 8. Distribution of children who made spelling mistakes by province and age

	Istanbul		Diyarbakır		Van	
	2 nd grade	5 th grade	2 nd grade	5 th grade	2 nd grade	5 th grade
Omitted letter	64.1	55.6	62.2	55.9	76.4	79.7
Wrong letter	61.7	66.7	71.1	69.9	76.4	65.3
Sound change reflected	18.3	12.5	20.7	18.9	22.0	14.6
Suffix separate	17.4	18.8	17.8	18.9	17.9	21.5
Conjunction attached	41.7	66.0	23.7	58.7	19.5	59.7



It is observed that there is not a significant difference between the three provinces. In the first three categories, there is a trend of decrease in errors by age, while errors pertaining to suffixes written separately and conjunctions attached to the words increases. This situation may be due to the fact that the 5th graders wrote longer texts and used more complex structures than did the 2nd graders. Furthermore, these findings clearly show that the 5th graders in all three provinces have not yet learned fully the rules of spelling and punctuation.

(c) Plot structure and coherence

The compositions were also evaluated in terms of their structural and semantic characteristics.

Text structure was determined by looking at the form of the compositions, which were classified into the following three categories: list, text and mixed. For text coherence, the compositions were classified as coherent, semi-coherent and incoherent. It was observed that among the younger group, that is children who were just starting 2nd grade, nearly one fourth in Istanbul, about half in Diyarbakır and more than half in Van employed the listing method. The proportion of texts incorporating both listing and text characteristics were low in all three provinces. An important difference between the provinces was that while majority of the Istanbul 2nd graders wrote compositions in the form of a text, only about half in Diyarbakır and one fourth in Van were able to construct such texts.

Examination of the compositions in terms of coherence, that is, whether one or more ideas are discussed in an integrated and related fashion, revealed that the texts of the Istanbul 2nd graders qualified as at least partially coherent while almost none of the compositions of the Diyarbakır and Van 2nd graders did so. This difference may be due to the fact that in Diyarbakır and Van, children in the 1st grade have to spend time and effort toward developing their Turkish language skills in addition to acquiring literacy skills. The compositions of the 5th graders were found to be better structured texts, and reached a certain level of coherence in all the three provinces. As can be expected, the Istanbul children who at the 2nd grade level produced partially coherent texts, produced texts that displayed the highest level of coherence in the 5th grade. However, Diyarbakır and Van 5th graders, also showed a major development in terms of text production and coherence as a result of schooling, despite the low level of performance displayed by the 2nd graders.

4.3. Final grades and linguistic competence

When the relationship between different aspects of linguistic competence and final grades was investigated, it was observed that in the Istanbul sample, there was no significant relationship between lexical knowledge scores and grades in Turkish and Math of the 1st graders, however, these two variables were correlated for the 2nd graders. In Diyarbakır and Van, a statistically significant relationship was found for both 1st and 2nd graders between lexical knowledge and final grades. As will be remembered, among the three provinces, Istanbul children displayed the highest level of lexical knowledge. It may be said that this knowledge is sufficient for success in Turkish and Math classes in the 1st grade and thus does not have an impact on end-of-year grades. Conversely, in Diyarbakır and Van, children whose lexical knowledge is more developed were more successful in first grade Turkish and Math classes. However, the fact that a statistically significant relationship was found in all three provinces for second graders indicates that a higher level of lexical knowledge is necessary for success in Turkish and Math classes once reading and writing skills are acquired, and that the students who have attained that level have higher grades on their report cards. For the students in Diyarbakır and Van, who started school with varying levels of



lexical knowledge, it is observed that this difference is reflected in their 2nd grade school success.

Table 9. Correlations between final grades in Turkish and Math and lexical and grammatical knowledge ($p < .05$), by province and grade

		Turkish		Math	
		1 st grade	2 nd grade	1 st grade	2 nd grade
Istanbul	Lexical knowledge	--	.44	--	.49
	Grammar	--	.31	--	.32
Diyarbakır	Lexical knowledge	.42	.38	.51	.37
	Grammar	.38	.35	.37	.37
Van	Lexical knowledge	.37	.52	.57	.41
	Grammar	--	.38	--	.37

The correlation between level of grammatical knowledge and grades in Turkish and Math was not significant for the first graders in Istanbul and Van; however, it was for the second graders. However, in Diyarbakır, the correlation between level of grammatical knowledge and grades in Turkish and Math was significant for both the first and the second graders. In the light of these findings it may be said that in Istanbul and Van, the ability of the 1st graders to understand and produce various grammatical structures is at a sufficient enough level that it does not to make a difference in their Turkish and Math grades. But for the 1st graders in Diyarbakır, it can be seen that having greater command over the grammatical structures of the Turkish language is indeed related to success in the Turkish and Math classes. The statistically significant relationship found in the second grade in all three provinces indicates that the students who are in better command of more complex grammatical structures have higher grades on their report cards. In short, the relationships found between linguistic competence and report card grades reveal that having command over a language is directly linked to school success not only in the beginning of school life, but in the years to come as well.



5. CONCLUSIONS

5.1. General evaluation of the findings

When findings obtained from the interviews with preschool, first grade, second grade and fifth grade teachers in were considered together with the findings obtained from a direct assessment of the level of competence in Turkish of the students from the same grade levels, it was observed that the information gathered from the educator and the educated via different methods overlapped to a great extent. This, in turn, shows that a robust assessment of the situation has been achieved through the measurement and assessment techniques utilized.

The findings reveal that in terms of demographic characteristics, representative samples of the targeted population have been reached in Istanbul, Diyarbakır and Van, but that there are differences between provinces. In terms of level of education of the families Diyarbakır and Van differed from Istanbul with a high percentage of uneducated mothers. In all three provinces majority of the mothers did not work outside the home, while unemployment among the fathers was very low. The highest income level was found in Istanbul, and the lowest in Diyarbakır. The most crowded households were found in Diyarbakır and Van, and the Diyarbakır families had the highest number of children. With regard to the linguistic environment of the child, the highest proportion of bilingual speakers were found in Diyarbakır, followed by Van, and a very small percentage in Istanbul.

In terms of both the characteristics of their physical environment and the availability of developmentally supportive social environment, Diyarbakır children were found to be in the least advantageous position. Regarding the type of early childhood care and education for their children, mothers expressed a preference for center-based education that would support their child's social and cognitive development and prepare them for school, on the one hand, and a training in child care and education for themselves, on the other. Mothers who could not send their children to a center stated that this was because they could not afford to do so, and consequently expressed a desire to have their current situation improved.

Interviews with the teachers revealed that the Istanbul teachers were the most experienced and were graduates of different departments of universities, whereas Diyarbakır and Van teachers were the youngest and were graduates from the departments of education. All the teachers, from all three provinces and all grade levels have unanimously expressed the view that existing conditions in education needed improvement. All the teachers reported that their classrooms were over-crowded. This was particularly so for the first grade classrooms and for the classrooms in Diyarbakır. These findings show that having a one-on-one interaction with the students, establishing discipline and enabling active learning is indeed difficult. All teachers, and particularly those in Diyarbakır and Van, have additionally emphasized the difficulties experienced in acquiring the necessary materials and equipment as well as the need for improving the physical conditions of the schools.

The number of teachers who considered the existing kindergarten program of the ECE system sufficient was higher in Istanbul than in the other provinces, whereas those who said it did not answer their needs was higher in Diyarbakır. The inadequacies noted were the limited number of kindergarten classrooms, inadequate indoor and outdoor spaces and lack of tools and equipment. Furthermore, it was suggested that kindergarten programs did not really prepare children for school, that teachers needed to have more on-the-job training opportunities, and that families were not aware of the importance of early childhood



education. A majority of the kindergarten teachers said that the center-based model was the most appropriate for their regions, while the first grade teachers considered mother education coupled with the center-based model more appropriate. The mother education model was noted as the appropriate model for the region by a higher proportion of teachers in Diyarbakır and Van than in Istanbul.

In all three provinces both the kindergarten and the classroom teachers noted that school readiness should include well-developed manual skills and the ability to adjust to school environment. The kindergarten teachers added the need for children to be able to show self-care. First and second grade teachers noted that students who had attended kindergarten showed better school adjustment, had better developed manual skills and learned faster than children who had not. While the Istanbul teachers did not mention any other region-specific skill that a kindergarten education should provide to students, the teachers in Van and particularly Diyarbakır noted that it was necessary for the child to come to school speaking and understanding Turkish. While kindergarten teachers said that they had few students in their classes who spoke a language other than Turkish, many of the first, second and fifth grade teachers stated that they had children who spoke a language other than Turkish in their classrooms. Compared to Istanbul, the proportion of classrooms that had children who spoke another language was found to be higher in Diyarbakır and Van, and the language spoken was Kurdish. In Istanbul, students who spoke a language other than Turkish were found to speak languages such as Kurdish, Bulgarian, Albanian and Circassian.

The teachers, particularly the first grade teachers in Diyarbakır and Van noted that they were faced with problems stemming from the low level of linguistic competence in Turkish most of their students had on arrival to school. The Istanbul teachers were complacent of their students' difficulties in forming correct sentences, having limited vocabulary and speaking with an accent, while teachers in Diyarbakır and Van, additionally mentioned that they at times came across children who spoke very little Turkish or not at all. As reasons for delays in learning how to read and write, all teachers mentioned individual differences, and lack of parental education and interest, while a majority in Diyarbakır and Van also noted insufficient knowledge of Turkish--the school language. Second and fifth grade teachers stated that they had students who experienced difficulties in reading, writing and reading comprehension, but that the most crucial problem was verbal expression. They identified the reasons for these difficulties as the lack of parental interest and education, as well as having a different mother tongue.

An analysis of the language data collected from the children also yielded in similar findings. In terms of the lexical knowledge children had, Istanbul ranked first, followed by Van and Diyarbakır. The fact that a first grader from Istanbul had the same vocabulary level as a second grader in Diyarbakır is a striking example of differences between provinces. With regard to age/grade level, the fact that second graders in all three provinces obtained the highest scores clearly shows the impact of schooling.

Analysis of children's narratives revealed that the texts produced in Istanbul and Van incorporated more complex language structures than those produced in Diyarbakır. In terms of age, kindergarten children were found to use more complex structures than first graders. In all three provinces, majority of children engaged in picture description, and storytelling was observed on a much lesser scale. This finding shows that the expressive skills of a large majority of the children were not yet fully developed. In this respect there was not a significant difference between provinces, but second graders were more successful in comparison to the other age groups.



In order to determine the language structures children had incorporated into their developing grammars, a sentence imitation task was used with the assumption that a correct repetition of the sentence reflects the full internalization of the syntactic structures it displays. A modified repetition, on the other hand, is a sign of comprehension but also of the fact that those structures that have been modified do not yet exist as an integral part of their own grammatical system. Finally, when a sentence is not repeated at all it is assumed that it has not been understood enough to even be repeated with modification. The findings from this task also show that the levels of grammatical competence in Turkish of children from Van and Diyarbakır are lower than that of Istanbul children. The findings again showed that the grammatical competence of second graders was more developed than the other age groups.

The findings obtained from these three language tasks show that in all three provinces, and particularly in Diyarbakır and Van, kindergarten children had more developed Turkish language skills in comparison to the same-age children in the home-care groups, as well as first graders who were one year older. This striking difference is a result of the fact that the children attending kindergarten are from families that are comparatively more educated and able to provide a more advantageous environment to their children as well as being predominantly monolingual. That fact that the level of Turkish competence displayed by the second graders is the highest among all the other groups is a reflection of the impact of schooling.

The compositions written by second and fifth graders, showed that there were significant improvements by age in text length, use of complex linguistic structures, and overall text coherence. However, the fact that grammatical and spelling errors increased regardless of these improvements points to the fact that the rules of written expression have not yet been completely internalized. More linguistic errors were found in the Diyarbakır and Van compositions in comparison to the Istanbul texts. These findings parallel the deficiencies observed by the second and fifth grade teachers with regard to literacy skills.

The fact that a direct relationship was found for second graders in all three provinces between lexical and grammatical knowledge and final grades shows that the students who had better command of complex grammatical structures and a more extensive vocabulary were more successful in school.

5.2. Suggestions and Policy Recommendations

The findings presented above provide important information for improving the early childhood education system in Turkey so that it can respond better to the existing needs and be more efficient. The inter-regional differences reflected in the findings show that instead of a “uniform” program and “similar” applications, programs and applications structured in accordance with the characteristics of different target groups should be emphasized. The responses mothers provided as to why they sent their children to kindergarten, and the opinions of the teachers concerning the objectives of early childhood education, clearly show the differences between regional needs.

Mothers who did not send their child to a preschool said the reason was that these institutions were “expensive.” If one considers the fact that these findings come from mothers of children living in disadvantaged environments, then it becomes obvious that the sector of society that needs early childhood education the most is in fact the one benefiting from it the least due to its high cost. In a country like Turkey where early childhood education system is



a center-based, the answers to the question “what should be the most appropriate early childhood education model” by mothers and teachers, shows that the system needs to incorporate a variety of models. The fact that a mother education program coupled with a center-based education for the child was desired in Diyarbakır and Van is an important indicator showing that different regions have different needs.

Suggestions as to how early childhood education could be improved, emphasized the need to improve the physical environment and to supply the basic material and equipment needs, particularly in Diyarbakır and Van. Teachers who did not have access to even the most basic goods and materials could not even raise issues related to the improvement of the quality of education. A group of teachers who said they experienced difficulty in program development stated the difficulty to be the “unavailability of ready-to-implement or target-appropriate programs.” Yet it is also true that ready-to-implement programs will not be adequate in responding to the needs of the various groups that teachers provide services to. As important it is for teachers to have the skills to implement target-appropriate programs, it also important for them to realize that ready-to-implement programs will not be sufficient in responding to particular needs. This situation brings to the fore the fact that teachers need to be equipped with the means of determining the developmental needs of the children and to develop programs accordingly.

One of the most important factors that ensures the effectiveness of early childhood education institutions is the collaboration between the school and parents. The fact that children develop in interaction with their environment makes it especially important for the two systems s/he exists in, namely the family and the school, to act in collaboration. If the two systems are similar and support one another, this will have a positive impact on the development of the child.

However, the data has revealed that a very small number of families have the opportunity to establish this collaboration since early childhood education services are found to be very inaccessible and expensive. On the primary school level, the low level of education and interest of the family, crowdedness of classrooms, inability of the teachers to have a one-on-one relationship with the students and the parents, and the school’s expectation for some kind of financial contribution from the families, prevent the opportunities for school-family collaboration from turning into an environment supportive of the development of the child. The current assessment points to the necessity of raising improving school-parent collaboration to a higher level both in terms of content and structure, as well as emphasizing its importance in the context of teacher education.

Another finding important for early childhood education system is the fact that kindergarten and first, second and fifth grade teachers all voiced different opinions in their evaluations of the system. The kindergarten teachers, in comparison with the first, second and fifth grade teachers think that the system responds to needs, while emphasizing the lack of basic materials as a major shortcoming. Teachers in the formal education system state that in addition to the lack of basic materials, the current education program and teacher education curriculum are inadequate. Teachers expressed different views also about the skills necessary for school readiness: kindergarten teachers noted self-care and adjustment to the social environment, whereas the teachers in the formal education system mentioned pre-literacy skills (manual dexterity and language skills) more. In view of the fact that children will continue to the formal education system after kindergarten, attention should be paid to not having a big difference between “readiness” and “expectation” so as not to push the child too hard to adjust. Thus, it is important to ensure that early childhood education and formal education complement one another, and that “child’s readiness” and “school’s expectation”



are as close to one another as possible. The findings also reveal that children who have attended kindergarten fulfill the expectations of the formal education system better than do children who have not. Although the findings show that the children who attended early childhood education institutions are in a more advantageous position and more ready to respond to the needs of formal education in comparison to children who have not, they also point to the fact that this advantage does not completely fulfill the expectations of the formal education system.

Throughout this study it was observed that differences in the Turkish linguistic competence of children was related to environmental factors represented by the province variable, as well as the age / schooling factors represented by subject status. Ranking the three provinces in terms of the lexical knowledge, the syntactic competence and oral and written expression skills their children possess would show Istanbul to be the first, followed by Van and lastly by Diyarbakır. In addition to the disadvantageous social and economical conditions of the provinces, the fact that there is a high proportion of bilingual speakers in Diyarbakır and Van seems to constitute the main reasons for differences across provinces. The facts that these provinces have the highest proportion of uneducated mothers and the least accessible early childhood education services, constitute some of the factors that contribute negatively to the level of linguistic development of children. Additionally, it is only natural that these children who are bilingual do not use Turkish in all kinds of every environments like their monolingual peers, and therefore do not show the same level of development in Turkish language skills.

In summary,

a) The findings of the study related to the objectives of early childhood education, the models within the system, and the current applications, as well as the findings related to the views and recommendations of the teachers provide important insights for the evaluation and improvement of the ECE system. These findings, based on interviews with mothers and teachers of children living in socially and economically disadvantaged environments in three different provinces and three different counties in these provinces, clearly show the widespread need for early childhood education for children living in similar environments, and the positive contribution this education will have on their development.

b) It is apparent that there is a need for the expansion of early childhood education services and the implementation of a support program that will help develop the language skills of children at the kindergarten level. This will prepare the child socially, cognitively and physically to the school environment, and allow him/her to begin formal schooling with the level of linguistic competence needed for the first grade activities focused on literacy acquisition. Such support provided at the kindergarten level will lead in time to a more effective education and to higher school success during the primary school years for the students reached.



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