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**A Study of Turkish Kindergarten Teachers' Attitudes Toward
Two Instructional Models: Direct Instruction and
Child-Initiated Instruction**

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ABSTRACT

The primary purpose of this study was to investigate kindergarten teachers' attitudes toward two instructional models based on two criteria: (1) the classroom social behavior of their kindergarten students, and (2) teacher demographics. In this study, and from a classroom perspective, the author defines children's classroom social behavior as staying seated, asking permission to talk, listening to the teacher, responding appropriately, taking turns, and sharing. The target population of this study was a sampling of kindergarten teachers from several kindergartens in the cities of Ankara and Adana in Turkey. A total of 121 completed surveys (a response rate of 90 percent) were collected for data analysis.

Descriptive statistics, frequencies, correlations and multiple regression analyses were performed for the data analysis in this study.

The conclusions of this study are as follows:

First, it is concluded from this study that overall, the Turkish kindergarten teachers interviewed believed that Child-Initiated Instruction is more effective than Direct Instruction for establishing the classroom social behavior of their kindergarten students.

Second, the results indicated that only one of the teachers' demographics information, "teachers' highest academic degree," did play a role in influencing teachers' attitudes toward Direct Instruction.

Third, none of the teachers' demographics information, including the number of students, the teachers' ages, their years in kindergarten, or their highest academic degree contributed to the teachers' attitudes toward Child-Initiated Instruction.

TABLE OF CONTENTS

LIST OF TABLES	viii
LIST OF FIGURES	x
ACKNOWLEDGMENTS	xi
Chapter 1. INTRODUCTION	1
Background and Setting	1
Curriculum Enhancement	3
Personnel Quality Improvement	4
Need for the Study	6
Purpose of the Study	8
Research Questions	8
Expectations for the Study	9
Definitions of Terms	10
Instructional Programs	10
Direct Instruction	11
Child-Initiated Instruction	11
Classroom Social Behavior	12
Assumptions	13
Limitations	13
Chapter Summary	14
Chapter 2. REVIEW OF THE LITERATURE	16
Direct Instruction	16
Direct Instruction Programs	25
The Engelmann-Becker Direct Instruction Program.....	25
Background	25
DISTAR'S Key Elements.....	26
Classroom Procedures/Methodologies	27
The Englemann-Becker Follow Through Project.....	28
Purposes/Objectives	28
Procedures Used.....	29
Analyses and Results	30
Hunter's Program for Direct Instruction	34
Background	34
Classroom Procedures/Methodologies	36
Summary of Key Elements.....	38
Missouri Mathematics Program	39
Background	39
Classroom Procedures/Methodologies	39
Studies on the Missouri Mathematics Program	41

Implications for DI Programs:	
Teaching Social Behavior Skills to Young Learners	44
Child-Initiated Instruction.....	46
Child-Initiated Programs	47
High/Scope: The First CI Program	48
Head Start: The Second CI Program.....	49
Implications for Head Start	
and High/Scope “Best Practices”	50
Training in Assessment.....	50
Training in Language Use	51
Curriculum.....	51
The Head Start Curriculum	52
The High/Scope Curriculum	52
Similarities and Differences in	
Head Start’s and High/Scope’s Curriculum...	53
Social Behavior in ECE Classroom Settings	53
Social Readiness	54
Findings of Current Social Skills’ Interventions.....	55
Findings of Classical Social Skills’ Interventions	57
Similarities and Differences in Skills Interventions.....	57
Chapter Summary	58
Chapter 3. METHODOLOGY.....	60
Research Design	60
Participants	61
Instrument Development and Pilot Testing	62
Phase 1: Developing the Survey	63
Phase 2: Identifying Panel Members/	
Distributing the Survey	64
Phase 3: Meeting with Panel Members	
and Identifying Disagreements	65
Phase 4: Reconciling the Disagreements	66
Phase 5: Translation to/from Turkish/English.....	68
Phase 6: Instrument Pilot Testing	69
Phase 7: Revising and Modifying the Survey.....	70
Phase 8: Statistical Analyses and Revisions	71
The Main Study.....	72
Phase 1: Receiving Human Subjects	
Research Approval	72
Phase 2: Contacting the Kindergarten Directors.....	73
Phase 3: Selecting the Participants.....	73
Phase 4: Distributing and Collecting the Surveys	74
Phase 5: Analyzing the Survey Data.....	75
Chapter Summary	77

Chapter 4. RESULTS	79
Profile of the Participants	79
Description of the Teachers' Attitudes	81
Teachers' Attitudes Towards DI	82
Teachers' Attitudes Towards CI.....	86
Factors Influencing the Teachers' Attitudes.....	88
Chapter 5. SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS FOR FURTHER STUDY	93
Purpose of the Study	93
Procedures	94
Discussion	96
Research Question 1	96
Research Question 2	98
Teachers' Attitudes Towards DI.....	98
Teachers' Attitudes Towards CI.....	99
Conclusions.....	99
Recommendations for Further Study.....	101
Turkish Ministry of National Education (TMONE).....	101
Directions for Future Research.....	102
REFERENCES	103
Appendix A KINDERGARTEN TEACHERS SURVEY	112
Appendix B INFORMED CONSENT FORM	117
Appendix C IRB Approval Letter	118
Appendix D DESCRIPTIVE STATISTICS FOR THE DI AND CI MODELS	120

LIST OF TABLES

Table	Page
2.1 Three Direct Instruction Programs: A comparison of Instructional Events.....	43
3.1 Questionnaire Revisions Based on Participants' Responses to the Pilot Study.....	71
3.2 Reliability Analysis of the Pilot Study.....	72
3.3 Data Analysis Procedures.....	77
4.1 Characteristics of the Participants.....	80
4.2 Means and Standard Deviations of Kindergarten Teachers' Attitudes toward Direct Instruction Based on Classroom Social Behavior.....	83
4.3 Levels of Kindergarten Teachers' Attitudes toward Direct Instruction Based on Classroom Social Behavior.....	85
4.4 Means and Standard Deviations of Kindergarten Teachers' Attitudes toward Child Initiated Instruction Based on Classroom Social Behavior.....	86
4.5 Levels of Kindergarten Teachers' Attitudes toward Child Initiated Instruction Based on Classroom Social Behavior	88
4.6 Zero-Order Correlations for Factors Used in the Regression Analysis.....	90

4.7	Multiple Regression Results of the Teacher Attitudes toward Direct Instruction Regressed on Selected Independent Variables.....	91
4.8	Multiple Regression Results of the Teacher Attitudes toward Child Initiated Instruction Regressed on Selected Independent Variables.....	92

LIST OF FIGURES

Figure	Page
1 Framework for This Study.....	61

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Chapter 1

INTRODUCTION

Chapter 1 introduces the foundations for this study of Turkish kindergarten teachers' attitudes toward Direct Instruction (DI) and Child-Initiated Instruction (CI). The main sections of this chapter are: (a) background and setting, (b) need for the study, (c) purpose of the study, (d) research questions, (e) expectations for the study, (f) definitions of terms, along with two assumptions about the generalizability of the results of the study, and (g) the limitations of the study.

Each of these sections follows. These descriptions provide support for this study.

Background and Setting

Turkey's project of modernization has guided the country toward Westernization during the past century (Eskicumali, 1994). In 1923, Mustafa Kemal Ataturk led a revolution in Turkey that initiated new customs and programs that transitioned the country from traditional Ottoman institutions and values to those approximating Western countries. One key aspect of this transition has been the assimilation

of secularism into Turkey's existing societal systems. Secularism in this context means the separation of religion and government. To achieve this, Turkey has begun to reform its current educational system to more closely represent Western educational norms. The reason for this shift in policy is based on the attempt to become more contemporary in many societal areas, including educational settings. The educational setting incorporates selected multiple standards of the European Union, and is a major element of Turkey's overall societal goal toward becoming more Westernized (Eskicumali).

Until recently, education in Turkey had been highly centralized. Part of this centralized form of instruction included methods that closely represent what is known in the West as Direct Instruction (DI). In educational settings in Turkey, the government, via the Ministry of Education, maintains complete control of both the curriculum and the manner in which the teachers teach it to their students. For example, teaching is centered on the teacher. Quietness and discipline are considered equivalent to successful classroom behavior management (Cankirili, 2004). In Western DI settings, teachers are provided with daily lesson scripts telling them what to say and do when instructing children (Hiralall & Martens, 1998). Therefore, while it was not being referred to as DI in Turkey, this was one of the methods being

employed by the Turkish government. Today, in an attempt to continue the Westernization of Turkey's educational system, DI is being coupled with Child-Initiated Instruction (CI), which is currently accepted and being implemented at all levels except pre-schools in Turkish schools.

With the move toward CI, Turkey's educational system has become less centralized. However, the Ministry of Education continues to maintain its important role of coordinating education and maintaining national academic standards.

The coupling of DI with CI did not happen immediately. After becoming a member of the Organization for Economic Co-operation and Development (OECD) in 1951, Turkey began selective modernization of its educational system. Essentially, the Turkish Ministry of Education was reorganized to reinvent education in Turkey (Özdem, 2005). Two major elements of this reinvention have included curriculum enhancement and personnel quality improvement (Özdem). These are described below.

Curriculum Enhancement

Enhancing curriculum improves the structure, content, and development of national curriculum programs by increasing the

technical and physical quality of the textbooks, and the technical and physical quality of the teaching materials and their usage. Such curriculum enhancement also provides modern and appropriate equipment to schools as well as textbook and teaching materials in a more useful and sufficient amount. Finally, it provides for the development of students with disabilities and special needs children (Özdem, 2005).

Enhancing curriculum is a necessary element of modernization. The process of switching to CI requires appropriate textbooks, equipment, and teaching materials for this instructional program, including those for students with disabilities or special needs (Özdem, 2005).

Personnel Quality Improvement (PQI)

PQI refers to improving the quality of Turkish teacher education to meet the educational standards of other OECD countries by improving the knowledge and skills of teaching personnel. In addition, PQI improves the quality and suitability of teacher education programs. Finally, PQI redistributes teachers with low workloads to places with insufficient numbers of teachers (Özdem, 2005). Personnel quality improvement as an element of modernization in Turkish

education is necessary because the process of switching to CI requires teacher training in this “new” instructional program, since the teachers have mainly been using DI.

In 1990, Turkey initiated the National Education Project. The most notable enhancement from this initiative was the establishment of 208 strategically located Curriculum Lab Schools (Özdem, 2005). These schools served as testing grounds for new and innovative teaching methods and educational technological advances (Özdem).

Methods and technologies deemed successful were then implemented throughout the entire educational system. This process bridges teacher-centered education with more student-centered education. Implementation of this new methodology began slowly, but increased as the product or goal after Turkey joined the OECD, along with efforts to join the European Union (Özdem). The process of incorporating student-centered education into the curriculum has become a critical focus of the modernized educational system in Turkey.

This attempt to switch from DI to CI is a topic of debate in Turkey. However, discussions are often fueled or skewed by political viewpoints. Teachers, on the other hand, have to adjust from using

strictly formulated “scripted teaching” to the less-structured student-centered instruction.

However, if the switch from DI to CI is to be successful in Turkey, it is very important to assess the teachers’ opinions of the effect of these two different models of instruction. It is also essential to assess their opinions based on relevant data, such as classroom social behavior and demographics, as opposed to political influence or intuitive beliefs. The teachers are the ones to implement the new instruction, not the politicians (Erbil et al., 2003; Ipsir, 2002).

Need for the Study

To this investigator’s knowledge, there is no previous research to examine Turkish kindergarten teachers’ attitudes toward the two different models of instruction. In addition, there is no study in Turkey of how these instructional strategies affect or impact young children’s classroom social behaviors. In addition, very little research on DI or CI in general exists in Turkey. Therefore, the investigator has chosen to reference Western literature when discussing these instructional methodologies and how they apply to this particular study.

In Turkey, kindergarten is usually the first setting where young children experience a structured learning environment in which they

interact with peers and adults. It is also the place where children find out which behaviors are acceptable and suitable for the school setting. Kindergarten teachers are primarily in charge of shaping and nurturing these new behaviors (Hiralall & Martens, 1998).

Therefore, it is essential that they use effective instructional strategies that do so. Regrettably, many early childhood educators and professionals have little awareness of, or training in, instructional strategies. Even after training, they have trouble applying and generalizing these skills (Hiralall & Martens).

This research also has the potential to make some contribution to the current discussions in Turkey regarding the two methods of instruction in the following ways: (a) by shifting the debate surrounding the two methods, from political issues to the educational issues themselves, and (b) by providing valuable data for Turkish administrators who are currently attempting to improve the quality of teacher education programs. In regard to the first, this study removes such external political elements from these discussions.

In sum, this study explores the importance of the Turkish kindergarten teachers' opinions regarding two instructional methods, and, hopefully, encourages future, more-in-depth studies that remove the political element and focus specifically on the effectiveness of the

two kinds of instructional models. Effectiveness here means the impact on children's social behaviors.

Purpose of the Study

There are two purposes for this research. The first is to explore Turkish kindergarten teachers' attitudes toward two different kinds of kindergarten classroom instructional models: Direct Instruction and Child-Initiated Instruction.

The second purpose is to examine how the kindergarten teachers' attitudes toward these two models are affected by: (a) the classroom behaviors of their kindergarteners, (b) the teachers' highest academic degree and their age, (c) the number of years they have been teaching kindergarten, (d) the number of professional organizations they participate in, and (e) and the teacher-child ratio.

Research Questions

This study focuses on classroom social behavior exclusively rather than on general social development. Thus, this investigator treats the school classroom social behavior of young children differently from their social development in other settings of life (e.g., home, religious meetings). Classroom social behavior is different than

social behavior; for example, raising a hand to get permission to speak in the classroom is a social behavior unique to the classroom environment. But this gesture would not be needed in ordinary social behavior outside the classroom. Social behavior, for example greeting people (Hi, Hello) is not unique to the classroom environment.

This study attempts to address the following research questions:

1. Are Turkish kindergarten teachers' attitudes toward Direct Instruction and Child-Initiated Instruction positive or negative, based on the effectiveness of these instructional methods on establishing and maintaining classroom social behavior?

2. When simultaneously examined, to what extent are the dependent variables "attitudes toward Direct Instruction" and "attitudes toward Child-Initiated Instruction" associated with the independent variables "teachers' highest academic degree, age, years spent teaching kindergarten, and the teacher-child ratio"?

Expectations for the Study

In this study, there are two expectations as follows:

1. There will be statistically significant correlations between the kindergarten teachers' attitudes toward the two instructional approaches and the teachers' ages and educational background.

2. There will be no statistically significant correlations between the kindergarten teachers' attitudes toward the two instructional approaches and the number of years they have taught kindergarten, or the teacher-child ratio.

Definitions of Terms

The following terms are used in this study: (a) instructional programs, (b) Direct Instruction, (c) Child-Initiated Instruction, and (d) classroom social behavior. Each is defined below.

Instructional Programs

A program of instruction is defined as an educational system that combines theory with practice and is supported by child development research and educational evaluation (Epstein, Schweinhart, & McAdoo, 1996). The practical application of such a system includes guidelines on how to set up the physical environment, structure the activities, interact with children and their families, and support staff members in

their initial training and ongoing implementation of the program (Epstein et al.).

In sum, an instructional program defines program process and content, shapes staff training and supervision, and allows meaningful assessment of program quality and effectiveness. It is “one of the best ways to pass on lessons gained from years of practice and research, allowing new teachers to build on the experiences of their mentors” (Epstein et al., p. 10).

Direct Instruction

“Direct Instruction is a curriculum in which teachers are provided with daily lesson scripts telling them what to say and do when instructing children” (Hiralall & Martens, 1998, p. 2). Schweinhart and Weikart (1998) defined DI as an approach in which teachers deliver scripted lessons and the students respond to them. DI is a systematic approach to teaching based principally on Skinnerian behaviorism (Vaughn, Kim, Sloan, & Hughes, 2003).

Child-Initiated Instruction

In Child-Initiated Instruction, the teachers construct classroom themes from daily events and promote children’s active participation in

free play. The purpose of this kind of instruction is to create an environment for children's natural development (Schweinhart & Weikart, 1998).

Peer collaboration and cooperative learning are the primary components of this instruction. Cooperative learning in this context means a set of instructional strategies that encourages cooperative student-student interactions to collectively and individually achieve lesson objectives (Prater, Bruhl, & Serna, 1998).

Peer collaboration here falls under the umbrella of cooperative learning. Peer collaboration encourages maximum student participation at the idea level, resulting in more flexible thinking, multiple solutions, and a clearer understanding of the steps leading to those solutions. This enhanced knowledge of the processes involved in problem solving allows the student to more easily adapt and generalize the learning to novel situations (Kewley, 1998).

Classroom Social Behavior

Classroom social behavior is shaped by the teachers' rules, guidelines, and classroom regulations. In this study, and from a classroom perspective, the author defines children's classroom social

behavior as staying seated, asking permission to talk, listening to the teacher, responding appropriately, taking turns, and sharing.

Assumptions

There are two assumptions in this study. They follow:

1. Education is highly centralized in Turkey, that is, the organization of the classrooms materials and promotion of teacher quality in kindergartens are similar across the country. Thus, the research results from this study of kindergartens in the cities of Ankara and Adana, may be generalizable to all kindergartens in Turkey.

2. There is no reason to believe that the research results from this study would be only for kindergarten teachers. Rather, the results might be appropriately generalized to teachers within the area of early childhood education in Turkey because DI and CI are used at other levels.

Limitations

The findings of the study were limited by the following factors.

1. Survey items developed by the investigator are probably never an exact match to the phenomena they attempt to measure. As a result of this limitation, the total picture of Turkish kindergarten

teachers' attitudes toward two instructional methods may not have been fully captured.

2. The population of the study was restricted geographically to kindergarten teachers in two major cities, Ankara and Adana in Turkey.

3. The study was carried out during the 2005-2006 school year in kindergartens in cities of Ankara and Adana in Turkey.

Chapter Summary

In sum, this chapter has set the context or background for this study in regard to Turkey's attempt to modernize its educational system representing Western approaches since 1951. Part of this modernization involves the ongoing transition from Direct Instruction to Child-Initiated Instruction and a move toward decentralization of education. Curriculum enhancement and personnel quality improvement have been part of this decentralization and modernization of Turkey's education.

This chapter has also presented the purposes of the study, which are to examine the attitudes of Turkish kindergarten teachers toward these two instructional methods and how their attitudes toward the two models are affected by the classroom behaviors of their kindergarteners, as well as by such variables as the teachers'

education, age, teaching experience, professional memberships, and the teacher-child ratio.

Additionally, this chapter provided the need for the study, stated the two research questions and two expected outcomes of the study; given definitions of terms, assumptions about the generalizability, and stated the limitations of the study.

Chapter 2

REVIEW OF THE LITERATURE

In reviewing effective teaching practices, Rosenshine (1976) first introduced the term “direct instruction (DI)” into the literature (Stein, Carnine, & Dixon, 1988). Since then, educators and researchers have been discussing the effectiveness of Direct Instruction (DI) and child-initiated instruction (CI) as a basis for research-based instruction in early childhood education.

The actual methods for implementing the DI program are based on the educational framework described below. The first section explains the theoretical foundations of DI. The second section focuses on descriptive and research studies that describe the elements or parts of specific DI programs implemented in the classroom, particularly their effects on students’ social behavior.

Direct Instruction

Direct instruction is an instructional method by which teachers deliver scripted lessons with cues and signals and the students respond to them. As a systematic approach to teaching (Vaughn, Kim, Sloan, & Hughes, 2003), some or parts of DI characteristically involve

direct teaching and the mastery of isolated skills (for example, pronouncing consonants) to reach mastery in reading (Swanson, 1999).

For classroom implementation, the major features of DI are: providing corrective feedback (Hiralall & Martens, 1998; Stein et al., 1998; Swanson, 1999), increasing academic-engaged time through the use of small-group instruction (Stein et al.), and breaking the instruction down into a single sequence that can be used in a number of subject areas (Hiralall & Martens; Stein et al.; Swanson).

In addition, examples of other features include: (a) scripted lessons, (b) classroom organization, (c) monitored student progress, (d) provision of set materials, (e) questions from teachers, (f) breakdown of tasks into smaller steps, and (g) the administration of probes (Hiralall & Martens, 1998; Stein et al., 1998; Swanson, 1999).

When teachers deliver DI lessons in a structured, sequential manner, students process them in the order in which the lessons are taught. The teachers do not exclude parts of the order (Rosenshine & Stevens, 1986). This approach and the practices implied by DI, that is, using carefully ordered lessons, provide teachers with face-to-face instruction in small student groups. The relevant cognitive skills are taught explicitly and are deliberately sequenced in a meaningful order

to achieve the desired result of a lesson learned (Rosenshine & Stevens).

DI has been shown to support enhanced academic achievement, self-esteem, and problem-solving abilities in children (Watkins, 1988). The convenience of DI as a representation of an effective teaching method has been established across many settings for numerous purposes: (a) to enhance high school achievement (Koziuff, LaNunziata, Cowardin, & Bessellieu, 2001), (b) to teach classroom management skills to preschool staff (Hiralall & Martens, 1998), (c) to predict treatment outcomes for students with learning disabilities (Swanson, 1999), (d) to see its effects on engaged behavior of students with disabilities in general education classrooms (Logan, Bakeman, & Keefe, 1997), (e) to teach socially validated skills (e.g., listening, problem solving, and negotiating), and (f) to teach intermediate-age students with disabilities (Prater et al., 1998).

Below, selected studies are explained in detail. Since this research is both descriptively and empirically based, the investigator presents statistical research articles that describe the design, variables (dependent, independent measures), and statistical instruments used to analyze data and results.

Koziuff et al. (2001) wrote a comprehensive description of direct instruction (DI) that is part of the instructivist approach to education, which emphasizes applied behavior analysis and precision teaching. Instructivism is a teacher-centered approach to learning, which includes addressing how a child learns through interaction with the environment. Koziuff, et al. (2001) state that "instructivist educators believe that virtually all students can succeed, and when they do not succeed, something is wrong with the instruction" (p. 3). The authors list five aspects of instructivism that are the mission of instructivist teachers: (a) an investment in the educational process, (b) viewing the class as a community, (c) teaching conceptual knowledge (concepts in every subject as well as reasoning and high-order thinking), (d) teaching practical knowledge, such as strategies and operations for problem solving, and (e) an interest in increasing the student's ability to direct his or her own learning.

These authors explain in considerable detail why constructivism/progressivism has not produced students who are proficient in the basics of reading, mathematics, and writing. The intention of Koziuff et al. was to introduce secondary school teachers and administrators to the major features of DI with the idea that the schools might utilize this approach for effective teaching.

Since Koziuff et al. believe that instructivism can help students increase their ability to direct their own learning, DI is more than just “talk and chalk.” Rather, it is a comprehensive approach that includes an investment in the educational process, which includes conceptual and practical knowledge and participation in a positive social environment, as listed in the five-part concepts above.

One of the most important aspects of DI is that it is not rote learning. Rote learning is synonymous with repetition and memorization, often without acknowledging the need for understanding. For example, a child may be asked to memorize a poem with some difficult terms or meaning. He or she may memorize it perfectly without knowing what the poem really says. Mastery is the goal of DI. According Koziuff et al., the guiding principle is that if the students are not learning, then the teacher is not teaching. According to these authors teachers are not teaching well because of a poorly designed curriculum or because he/she is not following the proposed and approved curriculum. The burden of proof is on the teacher, not on the student.

Koziuff et al. also noted that in order for this method to work at the high school level, it must be implemented beginning in kindergarten. The reason for this assertion is the mastery of

cumulative knowledge from the first day of school to high school graduation.

In their empirical study, Hiralall and Martens (1998) used Direct Instruction to teach classroom management skills to preschool staff. Independent variables were scripted instructional sequences; dependent variables were student and teacher behavior. Factor analysis was used as a statistical instrument to analyze the data for this study.

Hiralall and Martens used scripted instructional sequences to test student and teacher behavior. The sequence included using eye contact, step-by-step instructions, and modeling, praise, and redirectives by both students and teachers in a preschool setting. These authors believe that these scripts serve as an aid for newly acquired teaching skills. In their study, four preschool, qualified, experienced teachers and 14 children from a private day care center were chosen to test this hypothesis. Each teacher was observed in her use of a direct instruction sequence with a small group of preschool children, ages three years and eight months to four years and 10 months, none of whom had special needs. The classroom was divided into three main sections (play area, eating area, and an area for arts and crafts). One teacher worked in the structured arts and crafts

section with her group, while the other three teachers engaged the children in supervised free play in the large play area.

Two separate observers recorded teacher behavior and child behavior. These observation sessions lasted about 10-14 minutes and were conducted three times per week for one month.

The teachers were trained to use a sequence of managerial and instructional strategies that required the teachers to (a) keep the students' attention with eye contact, (b) provide clear directions orally, (c) give specific praise where noted, (d) redirect children who were not on-task and providing praise when their behavior became appropriate, (e) and monitor children's behavior by moving about in the play area, redirecting and praising as needed.

Hiralall and Martens chose an art activity for their study. This activity provided the teachers with several opportunities to implement different strategies that they had been trained to use in order to encourage appropriate classroom behaviors. After they had completed the study, each teacher completed an intervention rating profile and a survey that measured their opinions of the script method used in DI.

Concerning the observers, as a result of their observations, agreement for teacher behaviors were in the 90th percentile for the teachers' use of redirectives, facts, modeling, instruction, and on-task

activities. The data suggest that all 14 children were responsive to the script used by the teachers.

The findings of Hiralall and Martens indicate that the sequence of direct instruction the teachers used could be a highly effective instructional method for preschoolers. Sequence here means that the teachers are given scripts and training for the order in which something is being taught.

The results of Hiralall and Martens' study showed that all the teachers implemented the instructional sequence with high levels of integrity following training, and engaged in more instructional statements, modeling, and praise compared to the baseline. Follow-up observations conducted one month later indicated that two teachers continued to use the instructional sequence with high levels of integrity, whereas the other two teachers showed a decreasing trend.

One limitation of Hiralall and Martens' study was that it did not address children with special needs. Another limitation of their study is that all four teachers came from the same preschool. The second limitation means that there may be less diversity in the results because only one school was used in the study. In a different environment (another preschool) with different teachers, the observers could compare the results between the two schools. The authors

themselves recommended that future research address special needs children and a more diversified sample. Despite these limitations, this study did show positive results on preschool children when the teachers used the DI program as they had been instructed to.

Direct Instruction represents a specific set of principles and concepts (e.g., scripted lessons, teachers modeling a skill, etc.); however, classroom implementation of those concepts varied according to the DI program being followed. There are three major programs of direct instruction teaching practices that have been extensively discussed and studied over the past several decades. They are: (a) The Engelmann-Becker Direct Instruction Program, (b) Hunter's Program for Direct Instruction, and (c) the Missouri Mathematics Program.

There are two types of Engelmann-Becker DI Programs based on age and grade level at which the students attend these programs. The Engelmann-Becker DI Program deals with preschool and kindergarten students while the Follow Through Project of the Engelmann-Becker Program focuses on primary grade students. Both types are described below.

Direct Instruction Programs

Four kinds of Direct Instruction Programs are presented and described in this section. They are the Engelmann-Becker Direct Instruction Program, the Englemann-Becker Project Follow Through Project, Hunter's Program for Direct Instruction, and the Missouri Mathematics Program.

The Engelmann-Becker Direct Instruction Program:

The First DI Program

Background

Direct instruction began with the work of Engelmann in the early 1960s when he taught his non-identical twins. As he became interested in the principles of education, he began to explore the most efficient ways to teach by using a behavioral methodology.

Englemann's (1968) view of instruction is that learning can be greatly accelerated if instructional presentations are clear, with likely misinterpretations ruled out, and if the presentations also facilitate children's generalizations to new situations. Each DI program is shaped through field test tryouts with carefully scripted and tightly

sequenced lessons. Also, student errors are carefully evaluated (Engelmann).

Engelmann's early works focused on beginning reading, language, and mathematics published by Science Research Associates (Engelmann, 1968) under the trade name of the Direct Instruction System for Teaching and Remediation (DISTAR).

DISTAR'S Key Elements

Features of the Engelmann-Becker DI Program include:

(a) teaching students in small groups which are constituted by ability, (b) focusing attention on the teacher, (c) scripting for presentation of carefully designed instruction, (d) students responding quickly as a group and as individuals, (e) students responding when cued by the teacher, (f) providing frequent feedback and correction, and (g) using high-paced lesson formats.

From 1966 to 1969, Engelmann developed other programs that included high school students from low-income backgrounds and preschoolers with Down syndrome. During this period he formalized the rationale and methods for direct instruction (DI), some of which are described below.

Classroom Procedures/Methodologies

In the DISTAR version of DI Programs, children are grouped for a lesson on the basis of their abilities. They are seated in a semi-circle with one or two rows, without desks, close to and facing the teacher. Typically the teacher has a chalkboard, an overhead projector, or other visual aids that are used to present stimuli to the learners (Becker, 1992). The teacher refers to a script that contains carefully sequenced instruction, questions, and prompts. These scripts were field tested with other learners and were designed to maximize learning and minimize confusion. The rationale is that having prepared lessons that are optimized for teaching and learning frees the teacher to focus on motivational and extra-instructional features of the learning environment.

The tempo of the instruction is fast. Rather than giving explanations of new concepts, the children respond to examples and nonexamples presented by the teacher at a focused rate. In the early stages of a lesson, the learners are asked to respond as a group, giving their responses in harmony at the signal from the teacher (Becker, 1992). Periodically, the teacher asks individual students to respond, especially if the teacher suspects that the learner is having problems. Overall, the learners have a rate of 10 to 14 responses per

minute. "Underlying the visible features is a procedural structure built around the rule, 'teach more in less time.' Procedures are favored which reduce wasted time and hasten the teaching of given objectives" (Becker, 1992, p. 72).

Positive reinforcement for correct responses is noticeable and errors are corrected immediately (Becker, 1992). The high response rate of the learners makes the feedback mutual, alerting the teacher to difficulties that a learner is having, while providing natural reinforcement for the teacher's activities. Compared with traditional one-way teaching, DI provides maximal opportunities for interaction for the learning of both student and teacher (Becker, 1992).

The Englemann-Becker Follow Through Project

Purposes/Objectives

The Englemann-Becker Follow Through Project dealt with primary grade students. It was a massive educational experiment (Nadler, 1998) and is referred to as the largest controlled, educational comparative study of teaching methods. It was completed in the 1970s at a cost of more than \$600 million, enrolling 79,000 children in 180 communities.

The purpose of this Follow Through Project was to provide a comparison of the effectiveness of different early childhood programs with disadvantaged children in kindergarten to third grade. Children in three Engelmann-Becker sites were compared with children in other programs of instruction (Engelmann, 1998, p. 2).

Procedures Used

When Project Follow Through was implemented, each program had three to eight sites, beginning in either kindergarten or first grade. Each Follow Through (FT) school district identified a non-Follow Through (NFT) district to act as a control group. A total of 9,255 FT and 6,485 NFT children were in the final analysis group. Students in each school district were tested at entry and again each spring until third grade. Five different tests were used to assess academic achievement, cognitive development, and affective behavior. The following five tests were used: academic achievement was measured by the Metropolitan Achievement Test (MAT) and the Wide Range Achievement Test (WRAT); cognitive development was tested by Raven's Colored Progressive Matrices (RCPM); and affective behavior was assessed by the Intellectual Achievement Responsibility Scale (IARS) and the Coopersmith Self-Esteem Inventory (CSI). Each Follow

Through program was compared to both its local control group and with the pooled control groups of the entire project (Engelmann, 1998).

Analyses and Results

The Englemann-Becker Follow Through Project showed that students receiving direct instruction yielded significantly higher academic scores than those receiving other forms of instruction. "When the testing was over, students in Direct Instruction classrooms had placed first in reading, first in mathematics, first in spelling and first in language. No other program came close" (Nadler, 1998, p. 2).

Other types of programs that closely resemble many of today's educational approaches, such as "holistic," "student-centered learning," "learning-to-learn," "active learning," "cooperative education," and "whole language", showed poorer results in basic skills assessments (Nadler, 1998). Direct instruction improved cognitive skills dramatically, relative to the control groups, and showed the highest improvement in self-esteem scores compared to the control groups (Nadler).

In a later study, Becker and Gersten (2001) investigated the later effects of DI with fifth and sixth graders who had participated in

the first-through-third grade Follow Through DI Program. The MAT and the WRAT were used to measure the results of this study.

The 1975-1976 study focused on the effect of the three-year experimental Follow Through Programs. Becker and Gersten described the results of the Direct Instruction Follow Through (DIFT) program in reading and mathematics, comparing it with a typical third-grade academic performance by minority children from low-income families. The purpose of Becker and Gersten's follow-up study was to examine how or whether the DIFT program continued to build on and maintain the academic gains made in the early elementary grades (K-3). In addition, these authors traced the six-year longitudinal progress of the Follow Through children to see how their scores compared with the standardized sample of the same achievement tests.

Fifteen sites that were already affiliated with the DIFT model were asked to participate. Eight agreed to participate. Since five of the six remaining acceptable sites were part of a three-year program in the early grades, the analyses were necessarily limited to the three-year sites.

This later study involved 624 Follow Through graduates (from primary grades) and 567 Non-Follow Through students from the 1975 study. The 1976 study included 473 Follow Through graduates and 403

non-Follow Through students, with an emphasis in both studies on low-income students. Three different analytic strategies were used. Becker and Gersten summarized the results as follows.

The test for reading decoding, that is, word attack skills, measured children's ability to read isolated words accurately (Becker & Gersten, 2001). This test showed the strongest positive outcomes across sites, grade levels, and levels of the test. The results indicated that these reading skills were maintained, even two to three years after they were taught using DI in the early primary grades.

For spelling, there was a consistent, positive effect according to the MAT results. Becker and Gersten (2001) posited that the spelling mastery might be related to the phonic and word attack skills that the DIFT students had mastered in the early grades of school.

Word knowledge, mathematics concepts, language subtests, and the composite scores for total reading and total mathematics were more variable in their effects. The authors note that there is reasonable evidence that the later effects of DI were significant. They point out that the strongest effects were in WRAT reading, MAT spelling, and MAT problem solving. Also, using the Jones and Fiske (1953) statistical tests for the combined sample, the authors found evidence of significant and long-lasting effects in all areas except MAT

reading, which tested reading comprehension. The authors suggest that this may be the result of low-income children not having received the same vocabulary development at home as their high-income peers.

In sum, Becker and Gersten's (2001) report of their research indicate "reasonably high consistency across grade levels when the same children are followed" (p. 9). This means that Becker and Gersten also reported two significant findings: (a) Positive finding - In most of the areas assessed by standardized achievement tests, low-income graduates of the (elementary grades) three-year DIFT Program did perform better than comparable (low-income) children in schools from diverse communities who had not had access to the program. WRAT reading (decoding), math problem solving, and spelling seem to have the most enduring effects. (b) Negative finding - When the DIFT graduates were compared to the national norm, which takes into account all income levels, the results were not impressive. The children lost ground in the three years after leaving Follow Through.

Two conclusions can be drawn from the Becker and Gersten study, according to these researchers/authors: (a) If students learn the strategies and skills for problem solving well, this knowledge is not lost. This fact was demonstrated when the DIFT students

outperformed their community counterparts who did not have access to this program. (b) However, compared to their middle- and higher-income peers, these DIFT graduates are losing ground as they move onto the middle grades. They are not mastering new computational skills, and their vocabularies and reading comprehension skills are not being developed. Children with limited English skills seem to lose the most as they move up to higher grades.

Hunter's Program for Direct Instruction:

The Second DI Program

Background

Hunter (1994) developed a teacher decision-making program for planning instruction. Her program is called Instructional Theory into Practice (ITIP) and is widely used in school districts around the country. There are three categories that are considered basic to ITIP lesson design. They are: content, learner behaviors, and teacher behaviors. Each is described below (Hunter).

Content: Within the context of grade level, content standards, student ability and lesson rationale, the teacher decides what content to teach.

Learner Behaviors: Teacher must decide what students do to learn and to demonstrate that they have learned.

Teacher Behaviors: Teachers must decide which "research-based" teaching principles most effectively promote learning for their students.

When using Direct Instruction as the framework for planning, the teacher increases his/her effectiveness by considering Hunter's Seven Elements (listed below) as they "make real" the content or as they "scaffold" the learning needs of the students. Teacher decision making is the basis for this approach to teaching. "Decide, then design" is the foundation on which successful instruction is built" (Hunter, 1994). Therefore, when designing lessons, the teacher considers seven elements in a certain order, since each is derived from, and has a relationship to these previous elements: (a) learning objectives, (b) anticipatory set, (c) stated lesson objectives, (d) input, (e) check for understanding, (f) guided practice, and (g) independent practice. A decision must be made about inclusion or exclusion of each element in the final design. When this design framework is implemented in teaching, the sequence of the elements a teacher includes is determined by his/her professional judgment (Hunter). These elements are described below.

Classroom Procedures/Methodologies

The first element of Hunter's Program is "learning objectives." Teachers are instructed to select an objective at an appropriate level of difficulty and complexity, as determined through task analysis and diagnostic testing. The second element involves motivating the instruction by emphasizing the learning task, its importance, and the learning that led to this objective.

In the third element, teachers are told to state clearly the lesson objectives to the students. In the fourth element, teachers should then identify and teach the main concepts and skills, emphasizing clear explanations and maintaining frequent use of examples and diagrams (also known as input).

In "check for understanding" (the fifth element), by observing and interpreting student reactions (active interest, boredom) and by frequent formative evaluations with immediate feedback, teachers can adjust instruction as needed and re-teach if necessary.

The sixth element instructs teachers to provide guided practice following the instruction by having students answer questions, demonstrate skills, or solve problems. Teachers should provide immediate feedback and re-teach if necessary. In the seventh and

final element, teachers assign independent practice to solidify skills and knowledge when students have demonstrated understanding.

In sum, the seven elements described above are not always included in every lesson. Several lessons may be necessary before students are ready for guided and/or independent practice. Also, the simple presence of an element in a lesson does not guarantee quality teaching. A teacher may use an anticipatory set that spreads rather than focuses students' attention (e.g., "Think of your favorite food; today we are going to talk about cereals"). Input may be done ineffectively. The modeling may be distracting, e.g., "I will cut this chocolate cupcake in fourths." The seven elements are guides in planning for creative and effective lessons. They are not mandates!

Further, simply "knowing" the seven elements of planning for effective instruction does not ensure that those elements are implemented effectively. Also, simply having a "knack with kids" does not ensure that the elements that promote successful learning are included in instructional planning. Both the science and the art of teaching are essential. Deliberate consideration of these seven elements, which promote effective instruction, constitutes the launching pad for planning effective and artistic teaching (using any

program of teaching with any type of student) to achieve greater student achievement of any objective or goal (Hunter, 1994).

Hunter (1989) applied this program in several English classrooms. She gave examples for her “seven elements” in the context of English curricula. For example, a teacher is teaching toward a specific learning objective, which is Hunter’s first element, and then the learners demonstrate increased eagerness to read Shakespeare. The teacher introduces *Romeo and Juliet* with modern real-life Romeo and Juliet situations. In this way, Shakespeare becomes meaningful. The principle of connecting what is being learned to something the students are already interested in and know is employed to increase motivation.

Summary of Key Elements

DI lessons that follow the Hunter Program include objectives, a materials list, warm-up, presentation, guided practice, independent practice, closure, appraisal, and evaluation. This teaching strategy is strongly teacher-centered, and many teachers routinely follow this strategy.

Hunter’s Program was studied as an instruction that supports a process approach to teaching writing. When teaching writing as a

process, input happens in mini-lessons, in individual or group conferences, and in whole-class meetings (input). The teacher models phases of the writing process (modeling). The writing conference provides a continuous opportunity to assess student understanding (checking for understanding) (Phil, 1990).

Missouri Mathematics: Third and Final DI Program

Background

The Missouri Mathematics DI Program employs daily, weekly, and monthly reviews as part of the program for teaching mathematics. The aim is to help students develop a feeling of continuity about the mathematics they are learning, to help them reorganize the material at their own comprehension levels, and to provide systematic practice that promotes retention. Good and Grouws (1979) have shown that these techniques or strategies promote achievement.

Classroom Procedures/Methodologies

Summary of key instructional behaviors include daily review (except Mondays), development, seatwork, homework assignment, and special reviews. Each is described below (Good & Grouws, 1979).

Daily review (first 8 minutes except Mondays): The teacher reviews the concepts and skills associated with homework, collects homework, and performs mental computation exercises with the students.

Development (about 20 minutes): The teacher first focuses on prerequisite skills and concepts, then promotes student understanding via lively explanations, demonstrations, illustrations etc. Student comprehension is assessed through process questions (active interaction) and controlled practice. Repetition of the meaning portion is performed as necessary.

Seatwork (about 15 minutes): The teacher provides uninterrupted successful practice and involves everyone, and the teacher's role is to sustain this involvement. Students' work is checked at the end of the session.

Homework Assignment: Approximately 15 minutes of regular homework is assigned at the end of each class. Work includes one or two review problems.

Special Reviews: Teachers conduct a weekly review for 20 minutes each Monday that focuses on skills and concepts covered during the previous week. A monthly review is conducted every fourth month.

After a topic or unit is taught, key points or objectives are reviewed. Students thus become aware of the major highlights of the lesson, so they can focus on the skills or concepts that are needed in future lessons. It should be made clear to students that this is not simply a collection of exercises and problems. The review includes those topics that are the most important to remember. Short periods of intensive review are better than long periods to sustain student interest (Good & Grouws, 1979). Interspersing reviews throughout the textbook or curriculum is better than having an extensive review at one time.

Long-term retention is best served if assignments about a particular skill are spread out in time, rather than concentrated within a short interval (Good & Grouws, 1979). Reviewing immediately after instruction consolidates the ideas from that instruction, while delayed review aids in the relearning of forgotten material (Good & Grouws).

Studies on the Missouri Mathematics Program

Good and Grouws (1979) conducted a study that investigated the effectiveness of the Missouri Mathematics Program. The treatment program was primarily based on a study of comparatively effective mathematics teachers. Students were tested before and after with a

standardized test and a content test (posttest only), which had been designed to approximate the actual instructional content that each student had received during the treatment. Observational measures revealed that the teachers generally implemented the treatment, and an analysis of product data showed that the students of the treatment teachers generally outperformed those of the control teachers on both the standardized and the content tests. Good and Grouws concluded that teaching methods could put forth a significant difference on student progress in mathematics. Participants included 40 teachers drawn from 27 schools.

Table 2.1 that follows compares the three DI programs based on events that take place during instruction.

Table 2. 1

Three Direct Instruction Programs: A Comparison of Instructional Events

Engelmann & Becker (1968) Direct Instruction System for Teaching and Remediation (DISTAR)	Hunter (1982) Mastery Teaching (MT)	Good and Grouws (1979) Missouri Mathematics Program(MMP)
1. Opening	1. Objectives; provide anticipatory set	1. Opening
2. Review	2. Review	2. Review homework; mental computations; review prerequisites
3. Scripted presentation of carefully designed instruction	3. Input and modeling	3. Development
4. Frequent feedback and correction	4. Check understanding and guided practice	4. Assess student comprehension
5. Small groups, student seated facing the teacher, according to their ability	5. Independent practice	5. Seatwork
	6. Homework	6. Homework; weekly and monthly reviews
7. High Pace		
8. Active Responding as a group and individually		
9. Repeating after teacher as a group		

**Adapted from Huitt, W. (2003). Classroom Instruction.*

***Implications for DI Programs:
Teaching Social Behavioral Skills to Young Learners***

The study of social behavior includes the study of attitudes, values, and beliefs, which are taken to influence behavior, as well as the study of face-to-face interaction (Harre & Roger, 1986). In this study, and from a classroom perspective, the author uses the term classroom social behavior as staying seated, asking permission to talk, listening to the teacher, responding appropriately, taking turns, and sharing.

In Engelmann-Becker Direct Instruction settings, there are some routines that the children do together as small groups or as one large group. For example, children are grouped together and seated in a semi-circle with one or two rows, without desks, close to and facing the teacher. The children respond actively (repeat after teacher) as groups or as one large group. The author considers this physical closeness of young students as a strength to promote positive peer interaction and the learning of classroom social behaviors. In addition, positive reinforcement of appropriate classroom social behavior, frequent feedback, and correcting of inappropriate classroom social behaviors immediately are also strengths of Engelmann-Becker settings when teaching classroom social behaviors to young children.

In addition, having prepared scripted lessons that are optimized for teaching and learning then frees the teacher to focus on classroom social behaviors as extra-instructional features of the learning environment. However, absence of modeling of appropriate behavior in this program is a difference from the other Direct Instruction Programs.

In Hunter's Direct Instruction settings, when teaching classroom social behaviors, teachers motivate students for the appropriate behaviors, frequently use examples and visuals for appropriate behaviors, and model the appropriate behaviors. Teachers check for understanding as well. The author finds these features to be strengths of this program.

In Missouri Mathematics' Direct Instruction settings, the teacher reviews appropriate classroom social behaviors daily, weekly, and monthly. In addition, teachers assess the comprehension of these social behaviors. The investigator considers these features to be strengths when teaching classroom social behaviors to young children. However, the absence of positive reinforcement of appropriate behavior and the modeling of appropriate behavior in this program are weaknesses.

The actual methods for implementing the CI program are based on the educational framework described below. The first section explains the theoretical foundations of CI. The second section focuses on descriptive and research studies that describe the elements or parts of specific CI programs implemented in the classroom, particularly their effects on students' social behavior.

Child-Initiated Instruction

In CI, the teachers construct classroom themes from daily events and promote children's active participation in free play. The purpose of this kind of instruction is to create an environment for children's natural development (Schweinhart & Weikart, 1998). Peer collaboration and cooperative learning are the primary components of this instruction.

Child-Initiated activities facilitate children's social responsibility and interpersonal skills (Schweinhart & Weikart, 1998). In the Prater et al. (1998) study, they observed that all of the student ratings of their peers were more positive in the teacher-directed instruction group and there were more behavior problems in child-initiated instruction groups.

Classroom fulfillment skills such as following directions and completing assignments are among the expectations for classrooms that encourage individual seatwork and the completion of a sequence of worksheets. However, classrooms that encourage cooperation to use the resources of all students and to create a higher level of learning require a more complex set of social expectations to promote social performance. Conflict played an important role in collaborative problem solving unlike teacher-directed learning (Kewley, 1998).

Schweinhart and Weikart (1997) suggest that although preschool programs based on child-initiated learning activities contribute to children's social development, preschool programs based on teacher-directed lessons achieve an advantage in children's academic development by instituting a long-term contribution to their social development. In other words, research supports the use of curriculum designs based on teacher-directed instructions for preschool programs and does not support those based on Child-Initiated Instruction.

Child-Initiated Programs

In this study, the investigator focused on High/Scope and Head Start as two important CI Programs used for teacher training in public schools in United States of America.

High/Scope: The First CI Program

High/Scope is an "active learning" approach for educating children from birth to young adulthood. As a CI program It was developed in 1962 in Ypsilanti, Michigan. The High/Scope approach is now used across the United States and worldwide. Schools using it include half- and full-day preschools, nursery schools, home-based child care programs, and programs for children with special needs.

The High/Scope curricula foster social as well as intellectual competencies in all skills essential for children's school success based on concrete child development principles. Long-term studies have shown that the High/Scope approach promotes the healthy development of children and provides long-lasting benefits throughout adulthood.

The most recent follow-up of the High/Scope Perry Preschool study shows that high quality early childhood programs can have lasting benefits for children living in poverty and who are at high risk of school failure. At age 27, compared to the no-program group, those who attended preschool had higher monthly earnings, more home ownership, more high school graduation, less adult welfare use, and fewer arrests (Schweinhart, Barnes, & Weikart, 1993).

Head Start: The Second CI Program

Head Start and Early Head Start are comprehensive child development programs, which serve children from birth to age five as well as pregnant women and their families. They are child-focused programs with the overall goal of increasing the school readiness of young children in low-income families.

The Head Start program delivers comprehensive and high quality services designed to foster healthy development in low-income children. Head Start grantee and delegate agencies provide a range of individualized services in the areas of education and early childhood development; medical, dental, and mental health; nutrition; and parent involvement. In addition, all Head Start services are responsive and appropriate to each child's and family's developmental, ethnic, cultural, and linguistic heritage and experience. In 1964, the Federal Government asked a panel of child development experts to draw up a program to help communities meet the needs of disadvantaged preschool children. The panel report became the blueprint for Project Head Start.

Implications for Head Start and High/Scope for "Best Practices"

Because early childhood education can have long-term effects, establishing and maintaining the key features of best practices are essential. The Cost, Quality, and Outcomes Study "National Center for Early Development and Learning (NCEDL)" (1999) shows that high-quality child care contributes to school readiness.

For public and private schools implementing the High/Scope curriculum, it is reasonable to determine whether the High/Scope educational approach is compatible with the Head Start Program. Head Start aims to be a national program of "best practices" in early childhood and serves as a valuable comparison.

The investigator has identified the key features of Head Start and High/Scope as having the best programs and practices. He compares High/Scope and Head Start based on teacher training, curriculum, learning environment, adult-child interaction, child-initiated planning, and developmental appropriateness.

Training in Assessment

Head Start and High/Scope promote observing, not testing, for child and program assessment. High/Scope, like Head Start, believes

that observation is the most valid and authentic way to document young children's ongoing growth and development. In fact, High/Scope teachers record and discuss anecdotal notes as the basis of their daily planning for individual children. They are trained to write these daily, objective notes on what children do and say, rather than to rely on unclear, subjective impressions.

Training in Language Use

English is not the primary language for about 20% of Head Start children. Recognizing this fact, High/Scope teachers are trained to use a variety of strategies for communicating with these children in a classroom or center. For example, teachers often describe materials and activities in both languages, repeating children's non-English words in English, and accompanying words with gestures.

Curriculum

The Head Start Curriculum.

The Head Start curriculum focuses on the goals for children's development and learning, and the experiences through which they achieve these goals. In addition, what staff and parents do to help

children achieve these goals, and the materials needed to support the implementation of the curriculum.

The High/Scope Curriculum.

High/Scope has long advocated the use of a CI curriculum program in early childhood programs. The High/Scope definition of curriculum is consistent with the one offered by Head Start. High/Scope defines a curriculum program as an educational system that combines theory with practice and is supported by child development research and educational evaluation. The practical application of such a system includes guidelines on how to set up the physical environment, structure the activities, interact with children and their families, and support the staff members in their initial training and ongoing implementation of the program.

In sum, a curriculum program defines program process and content, shapes staff training and supervision, and allows meaningful assessment of program quality and effectiveness. The High/Scope curriculum is “one of the best ways to pass on lessons gained from years of practice and research, allowing new teachers to build on the experiences of their mentors” (Schweinhart & Weikart, 1997, p. 10).

Similarities and Differences in Head Start's and High/Scope's Curriculum.

In the Head Start and High/Scope programs, curriculum provides practitioners with information on how to set up and equip the learning environment, how to provide activities and experiences for children, and how to support and interact with children to promote development. Features explicitly added by High/Scope — but by no means inconsistent with Head Start — are a theoretical and research base, staff development strategies, and ongoing assessment of program quality and children's development. Head Start promotes and finances ongoing training for staff. High/Scope sees these features as essential that they are included in its definition of curriculum (Epstein, 1998).

Since this study focused on classroom social behavior, the researcher discusses social behavior in Early Childhood Education classrooms in the following section.

Social Behavior in ECE Classroom Settings

The social behavior of children has been a subject of increased attention since 1980s. However, the concept of social behavior has changed from a universal concept referring to the overall capability of

a person's social performance to a multidimensional assemblage consisting a number of interacting components contributing to social behavior.

In this study, and from a classroom perspective, the author uses the term children's classroom social behavior to mean staying seated, asking permission to talk, listening to the teacher, responding appropriately, turn taking, and sharing.

Social Readiness

Children who have had positive experiences in groups are more likely to survive successfully during their first school experience (Katz & McClellan, 1991). Young children can approach new friends with self-confidence if they have already had some positive experience under the authority of adults outside their family. They adjust to school life if they have experienced enjoyable relations with a group of peers, and in that way, gained social skills such as taking turns, sharing, and approaching unfamiliar children (Katz & McClellan). Parents and preschool teachers contribute to social readiness by promoting positive experiences in group settings outside of the home and by helping children reinforce their social skills and understanding (Katz & McClellan).

Findings of Current Social Skills' Interventions

Ödom, McConnell, McEvoy, and Peterson's study in 1999 compared the effects of different intervention approaches designed to promote peer-related social competence of young children with disabilities. Ninety-eight preschool-age children with disabilities (66 boys and 32 girls who were enrolled in classes in Tennessee and Minnesota) participated in four intervention conditions (i.e., environmental arrangements, child specific, peer mediated, and comprehensive) and a control (i.e., no intervention) condition. Ninety-two children remained at the end of the year and participated in the posttest assessments, and 83 children participated in the follow-up assessments. A performance-based assessment of social competence, which consisted of observational, teacher rating, and peer rating measures, was collected before and after the interventions and again the following school year.

The following types of intervention were shown to be most effective:

Modeling: Peers and teachers demonstrate specific desired behaviors to children with disabilities.

Play-related activities: Specific play activities intended to help the development of cognition, language, and social functioning are used.

Prompting: Students are prompted to display target behaviors.

Rehearsal and Practice: Students practice the target behaviors.

Other effective intervention features included reinforcement of appropriate behaviors through systematic rewards; free-play generalization where children play with untrained peers or with untrained toys during free playtime; and Direct Instruction, which teaches specific behaviors.

Many of the most effective interventions had been integrated into daily instructional programs by classroom teachers, allowing them to concentrate their efforts on the implementation of social skills intervention programs that connect with the early intervention programs they are providing, rather than determining the specific type of independent social skills intervention that is most effective. In addition to current studies, there are several classical studies conducted with three-to eight-year-old children with disabilities between 1985-1995.

Findings of Classical Social Skills' Interventions

LeBlanc and Matson (1995) conducted a study that explored social behavior with participants that included 32 preschool children with mild to moderate developmental delays. Children went through one-hour Social Skills Training sessions twice a week for six weeks. Each session included (a) structured group activity-targeted social behaviors (e.g., greetings, using puppets, peer modeling), and (b) reinforcement in play situation-reinforcement for target behaviors. A time-out chair was used for inappropriate behavior. The control group consisted of children who learned pre-academic skill.

Matson, Fee, Coe and Smith (1991) also conducted a study on social behavior. Participants were 28 young children with developmental delays. Children went through the same social skills training, intervention, duration, and intensity as participants in the LeBlanc and Matson (1995) study. The control group consisted of untrained children in typical classes.

Similarities and Differences in Social Skills Interventions.

Matson et al., (1991) found that a similar social skills training program for preschoolers with developmental delays in a non-categorical preschool could increase appropriate behaviors and

decrease inappropriate behaviors. However, generalization of social skills to other settings with non-trained handicapped preschoolers was not investigated.

Unlike Matson et al.'s (1991) study, LeBlanc and Matson (1995) investigated the generalization of treatment effects to non-trained handicapped preschoolers.

Chapter Summary

In this chapter, the review of the literature focused on the following three main sections: Direct Instruction, Child-Initiated Instruction, and classroom social behavior in ECE classroom settings.

Under the DI section, the following subsections are examined: (a) theoretical foundations of Direct Instruction, (b) descriptive and research studies that describe the elements or parts of specific DI programs implemented in the classroom, particularly their effects on students' social behavior, (c) three major DI programs, and (d) implications for DI programs to teach social behavioral skills to young learners.

Under the CI section, the following subsections are examined: (a) theoretical foundations of CI, (b) Child-Initiated Programs, (c)

implications from CI programs for best practices, (d) similarities and differences between CI curriculums.

Under classroom social behavior in the ECE classroom settings section, the following subsections are examined: (a) social readiness, (b) findings of current social skills' interventions, (c) findings of classical social skills' interventions, and (d) similarities and differences between different social skills interventions.

According to the literature review, both DI and CI have effects on the classroom social behavior of young children. This study is designed to understand kindergarten teachers' attitudes toward these two instructional methods based on the classroom social behavior of students.

Chapter 3

METHODOLOGY

There are two purposes for this research. The first is to explore Turkish kindergarten teachers' attitudes toward two different kinds of kindergarten classroom instructional models: Direct Instruction and Child-Initiated Instruction.

The second purpose is to examine how the kindergarten teachers' attitudes toward these two models are influenced by: (a) the classroom behaviors of their kindergarteners, (b) the teachers' highest academic degree and their age, (c) the number of years they have been teaching kindergarten, (d) the number of professional organizations they participate in, and (e) and the teacher-child ratio.

To provide a complete description of the methodology for this study, this chapter is divided into four sections: research design, participants, pilot study, and research study.

Research Design

This study is based on descriptive correlational research using quantitative strategies. The data were gathered using a questionnaire, the Kindergarten Teachers' Survey (KTS), designed by the investigator

specifically for the study. The questionnaire was distributed to 134 kindergarten teachers in two cities, Ankara, and Adana in Turkey. Figure 1 presents the basic study framework.

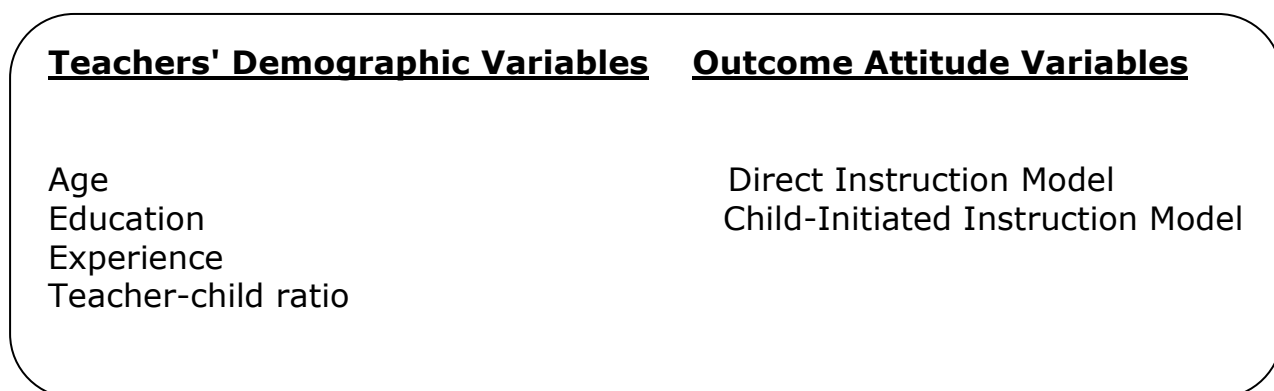


Figure 1. Framework for this study.

The outcome variables were the teachers' attitudes toward two different instructional models (Direct and Child-Initiated Instruction).

Participants

One hundred twenty one (121) kindergarten teachers were chosen to participate in this study. They were chosen from kindergartens in the cities of Ankara and Adana, Turkey. These cities were selected by the investigator because he has personal contacts in these cities. The investigator went to college, lived in, and/or worked

in these cities. The kindergarten teacher population characteristics of these three cities are representative of other cities' kindergarten teachers across Turkey, Ankara and Adana represent metropolitan cities. These cities were chosen because of the nature of their diverse populations, influenced largely by immigration, and also because they are two of the most highly populated cities in Turkey. Due to their representative characteristics and high population, Ankara and Adana have frequently been used in research studies and for public opinion polls in Turkey for many years.

Participants had to be 18 years of age or older to take part in this research study. They were given a copy of a signed and dated consent form for their records. To maintain the confidentiality of the participants' responses, they were instructed not to write their names on the survey. All of their responses remained confidential; no personally identifiable information is shared because their names are not linked to their responses.

Instrument Development and Pilot Testing

Instrument development consisted of six phases, each of which is described below: (a) developing the initial survey, (b) identifying panel members and distributing survey to panel members, (c) meeting

with panel members and identifying disagreements, (d) reconciling disagreements, (e) translations to/from Turkish and English languages (f) instrument pilot testing, (g) revising and modifying the instrument, and (h) statistical analyses and revisions.

Phase 1: Developing the Survey

KTS (see Appendix A) was used to collect the data for the study. It was developed by the investigator and based on a comprehensive review of the studies reflected in Chapter 2. This survey contains two sections. Section 1 of the KTS deals with the demographic information of the participants in regard to five areas: age, educational background, years of kindergarten teaching experience, teacher-child ratio, and membership in professional associations. Section 2 of the KTS includes items designed to measure participants' attitudes toward two kindergarten instruction models, Direct Instruction and Child-Initiated Instruction, based on classroom social behavior of kindergarteners.

In Section 1 of the KTS, blank spaces are provided for the participants' answers. For example:

"Grade level you are most comfortable teaching _____."

In Section 2, a Likert response scale ranging from 4 to 1 is used. Numeral 4 represents "Strongly agree", numeral 3 represents "Agree", numeral 2 represents "Disagree", and numeral 1 represents "Strongly disagree." For example, participants are asked to use the scale to respond to a statement such as: "An effective way to modify the classroom behavior of kindergarten children."

***Phase 2: Identifying Panel Members/
Distributing the Survey***

In an effort to involve panel members from different educational backgrounds, the investigator invited three professional people to participate in evaluating the survey instrument with him.

A third grade teacher with elementary and special education certifications had three years experience teaching children with developmental disabilities including Autism and Down syndrome. She had two years experience as a second grade teacher of typical English-as-a-Second-Language (ESL) and special-needs children in an urban environment.

An elementary school director with a Ph.D. degree in Curriculum and Instruction, Social Studies Education and Comparative and

International Education, participated as a panel member. He had four years of teaching experience in secondary education.

A graduate student, a Ph.D. candidate, had a master's degree in Curriculum and Instruction. She had 14 years of experience in pre-school, kindergarten and elementary settings.

All panel members had a working knowledge and understanding of the two instructional models.

The survey was distributed to panel members one week before the panel meeting to enable them to get familiarized with the survey questions. They were then asked to send their initial responses back to the investigator.

Phase 3: Meeting with Panel Members and Identifying Disagreements

The investigator began the meeting by defining each panel member's responsibilities. Panel members then began listing their responses to the survey, identifying agreements and disagreements. Panel members were asked to carefully read each of the items to determine whether they were clear, straightforward, and meaningful. If they identified questions that did not meet these criteria, they were

instructed to rewrite the questions to make them more understandable.

Phase 4: Reconciling the Disagreements

There were 20 agreements and 4 disagreements about survey items among the three panel members. The panel also agreed to add one more demographic question to the survey. The first discrepancy occurred in Section 1: Demographic Information, question 1₃. The meaning of the demographic question is not clear enough. The researcher decided to revise this question. The original question was: "1₃. Level you are mostly identified with." Revising this question makes the intent more understandable. Revised content for question 1₃ appears as "Level you are most comfortable teaching."

The second discrepancy occurred in Section 1: Demographic Information, question 1₅. The panel members agreed that the meaning of the question was not clear. With suggestions from the panel, the researcher revised this statement. The original question was: "1₅. Which area of specialization are you identified with?" Revising this statement made the intent of this question more understandable. Revised content for statement 1₃ appears as "Areas of specialization_____."

The third discrepancy occurred in Section 1: Demographic Information. Two of the four panel members felt a new question should be added. The researcher made the addition. The question numbered 1₁₀ was added the survey as follows:

1₁₀. My kindergarten is located in a setting best described as:

- a) Urban b) Suburban c) Rural

The fourth discrepancy occurred in Section 1: Demographic Information. One panel member suggested adding another question. The suggested question is "Are there children with special needs in your classroom?" The panel decided not to make the addition due to the fact that special education students are not currently included with mainstream students in Turkey.

The fifth discrepancy occurred in Section 2: Attitudes Toward the Direct Instruction Model and the Child-Initiated Instruction Model. All panel members suggested a change in the number of Likert-type response options. Original response options ranged from 1 to 7 (1=Very strongly disagree, 2=Disagree, 3=Disagree, mildly, 4=No real opinion, 5=Agree, mildly, 6=Agree, 7=Very strongly agree). The revised response options range 4 to 1 (4=Strongly Agree, 3=Agree,

2=Disagree, 1=Strongly Disagree). The reasons for the change are that seven items might be confusing to potential teacher participants and could also create major analyses problems.

Phase 5: Translation to/from Turkish and English

The original survey was in English. It was translated by the investigator and appeared in the Turkish language when distributed to the study participants. The translation was verified by a professional at The Pennsylvania State University who is proficient in both English and Turkish. When completed, the copies were compared and revised as necessary. To further ensure the accuracy of the translations, the revised Turkish text was given to a graduate student at The Pennsylvania State University who is fluent both in Turkish and English. She retranslated the survey from its Turkish translation back to English. The outcomes of the "back-to-back" translations were compared. In doing the translations, the meaning as a whole was taken into primary consideration rather than doing a one-to-one translation of individual words. This time there were no discrepancies.

Phase 6: Instrument Pilot Testing

The instrument pilot testing had a number of critical elements. First, a convenience sample of 10 Turkish teachers from the Pittsburgh, Pennsylvania, area was chosen as the pilot study group that met the following criteria. A convenience sample is one in which the researcher uses whatever individuals are available rather than selecting from the entire population (Krueger, 2001).

Krueger (2001) reports that a sample of between 10 and 30 individuals would be sufficient to conduct pilot studies of the 15-item instrument. In certain situations, 10 to 30 individuals might be sufficient for other statistical analyses such as a *t* test or analysis of variance. For pilot studies, survey items under certain situations that yielded Cronbach's alpha value of .50 or less were then modified or dropped from the survey. However, Krueger recommends using a .75 Cronbach's alpha criterion for either item revision or deletion.

The major common characteristics of the participants in this pilot study included the following:

1. The participants were all teachers of Turkish descent currently living in the United States.
2. All participants were native speakers of Turkish and proficient in English.

3. These participants were chosen because they all have education backgrounds and teaching experience.

The pilot survey was administered in a classroom and the participants were given up to one hour to complete the survey. No payment was given for participation in the survey. The participants were assured that their responses were confidential as their names were not included on the surveys.

Phase 7: Revising and Modifying the Survey

Pilot study participants also reviewed the questionnaire for face validity and content validity with the researcher, making appropriate modifications to the instrument based on their input. After collecting data from the participants, the investigator reviewed their responses to the pilot study and revised the questionnaires based on their responses. Table 3.1 shows how items were modified after receiving their responses to the pilot study.

Table 3.1
Questionnaire Revisions Based on Participants' Responses to the Pilot Study

Original Question	Final Question
8. Degree?	8. What is your current highest completed degree?
9. Other Degrees?	9. What other degrees do you hold?

Phase 8: Statistical Analyses and Revisions

After gathering the data from the 10 participants in the pilot study, they were coded in accord with the Statistical Package for Social Sciences (SPSS, Version 12.0.1).

For reliability, the investigator used Cronbach's alpha coefficient to determine internal consistency. Reliability was calculated using the data provided by the pilot study respondents. Table 3.2 provides the reliability coefficients of the pilot study.

Table 3.2.***Reliability Analysis of the Pilot Study***

Category	Number of Items	Cronbach's Alpha
Direct Instruction Model	15	.96
Child-Initiated Instruction Model	15	.95

The Main Study

The main study was conducted in April 2006. It was conducted in the following five phases: (a) receiving approvals: human subjects forms completed/approved, (b) contacting Turkish kindergarten directors, (c) selecting [articipants, (d) submitting and collecting surveys, and (e) analyzing the survey data.

Phase 1: Receiving Human Subjects Research Approval

Approval for the study was required from The Pennsylvania State University's Human Subjects Committee. Several steps were followed. First, an Application for the Use of Human Participants form entitled "A Study of the Relationship among Turkish Kindergarten Teachers Attitudes Toward Two Kindergarten Instructional Models Based on

Classroom Social Behavior of Kindergarteners and Teachers' Demographics" was submitted to the Office for Research Protections. The document was assigned an IRB number: IRB#20660. Changes were requested to the form, after review by the Research Compliance Coordinator. The changes were incorporated and the revised form was sent back to the Office for Research Protections. The revised form received approval on March 17, 2006. (See Appendix C)

Phase 2: Contacting Kindergarten Directors

In this phase, directors were contacted in several kindergartens in the cities of Ankara and Adana, in Turkey. Telephone calls were made to local kindergarten directors to set up meetings to discuss the research ideas behind the study, request teachers' rosters, and arrange schedules for submitting and collecting surveys.

Phase 3: Selecting the Participants

The investigator made initial contact through personal communication with the kindergarten directors. The teachers were approached with a personal invitation, and information sessions took

place primarily in school staff rooms. Information about the project was provided in the faculty rooms of the schools.

In an attempt to exclude teachers who did not have experience with or knowledge of the different instructional models, the investigator chose to eliminate certain participants from the study, namely those who did not have at least a high school diploma, those who were younger than 18 years of age, and teachers who had less than one year of experience in kindergarten settings.

Phase 4: Distributing and Collecting the Surveys

Before distributing the surveys to the participants, the study procedure and contents were explained. The investigator distributed the informed consent documents (see Appendix B), which were submitted to and had been approved by, the Office for Research Protections, The Pennsylvania State University, to the participants and explained their rights. Following that, the questionnaires were distributed to the participants.

Clear survey instructions were provided to each study participant upon distribution of the survey. The surveys were collected from participating teachers one week after submission. Follow-up reminder

telephone calls were made to participants who had not returned their surveys.

A total of 134 kindergarten teachers were recruited for this study. Of the 134 subjects, 121 completed and returned their surveys for a return rate of 90%. The questionnaires were collected and coded by number to enable analysis using the statistical program SPSS, 12.0.1) version for Windows.

Phase 5: Analyzing the Survey Data

All data were recorded, entered, and analyzed using the statistical program SPSS, 12.0.1 version for Windows. For reliability, the investigator used Cronbach's alpha coefficient to determine internal consistency. The reliability was calculated using the data provided by the main study respondents. The responses were collected from 120 individuals, and Cronbach's alpha reliability of .86 was calculated for Direct Instruction Model, and Cronbach's alpha reliability of .92 was calculated for Child-Initiated Instruction Model.

The study was intended to describe Turkish kindergarten teachers' attitudes toward two kindergarten instructional models, DI and CI models based on the classroom social behaviors of their kindergarteners.

Frequencies, percentages, measures of central tendency (mean, mode), variability, and standard deviation of data were calculated to measure the kindergarten teachers' attitudes toward two kindergarten instructional models, Direct Instruction and Child-Initiated Instruction, based on the classroom social behavior of their kindergarteners.

Descriptive statistics and Spearman rank-correlation coefficients were calculated using the statistical program SPSS, 12.0.1 version for Windows available at the Center for Academic Computing, The Pennsylvania State University.

Spearman rank correlation (Glass & Hopkins, 1996) and rank-biserial correlation coefficients (Glass & Hopkins) were calculated to determine if there were significant correlations between the teachers' attitudes and their age, their kindergarten teaching experience, educational background, teacher-child ratio, and membership in professional organizations. Regression Analyses were calculated to compare the attitudes of the teachers in different categories toward these two kindergarten instruction models.

On the following page, Table 3.3 summarizes the data analysis procedures.

Table 3.3***Data Analysis Procedures***

Research Questions	Methods of Data Analysis
1. Are Turkish kindergarten teachers' attitudes toward Direct Instruction and Child-Initiated Instruction positive or negative, based on the effects of these instructional methods on classroom social behavior?	Descriptive Statistics Frequencies
2. When simultaneously examined, to what extent are the dependent variables "attitudes toward Direct Instruction" and "attitudes toward Child-Initiated Instruction" associated with the independent variables "teachers' highest academic degree, age, years spent teaching kindergarten, and the teacher-child ratio"?	Correlation Multiple Regression

Chapter Summary

To summarize, this chapter contains a description of the methodology and procedures followed in the conduct and analysis of the data collected during this study. First, the researcher discussed the procedures used in participant selection. Next, information relating to

the development of the instrument was presented. Finally, the procedures for data collection and the methods of data analysis were presented and described.

Chapter 4

RESULTS

This study was designed to investigate Turkish kindergarten teachers' attitudes toward the two instructional Models (Direct and Child-Initiated Instruction). This chapter presents the findings from this research in the following sections: (a) profile of the participants, (b) descriptive statistics information, (c) analysis of the relationships between the teachers' "attitudes toward Direct Instruction" and the teachers' demographic variables (i.e., the teachers' highest academic degree, age, years spent teaching kindergarten, and the teacher-child ratio), (d) analysis of the relationships between the teachers' "attitudes toward Child-Initiated Instruction" and the teachers' demographic variables (i.e., the teachers' highest academic degree, age, years spent teaching kindergarten, and the teacher-child ratio), and (e) additional findings.

Profile of the Participants

A total of 134 kindergarten teachers were recruited for this study. Of the 134 teachers, 121 completed and returned their surveys for a return rate of 90%. Demographic information about the kindergarten teachers is shown in Table 4.1.

Table 4.1.***Characteristics of the Participants
(n=121)***

Variable		Frequency	Percentage
Gender	Male	3	2.5
	Female	118	97.5
Age	18-23	37	30.5
	24-33	61	50.4
	34-43	14	11.6
	44-51	8	6.6
	Missing	1	0.8
Years taught in kindergarten	1-5	62	51.2
	6-10	36	29.8
	11-15	12	9.9
	16-20	8	6.6
	21-25	2	1.7
	26 or above	1	0.8
Specialization	Child development	58	47.9
	Director	4	3.3
	Early childhood education	43	35.5
	Missing	16	13.2
Degree	College	74	61.2
	High school	45	37.2
	Master's	1	0.8
	Missing	1	0.8
Number of children in classroom	5-15	48	39.7
	16-25	56	46.3
	26 or above	12	9.9
	Missing	5	4.1
Location of school	Urban	117	96.7

Suburban	3	2.5
Rural	1	0.8

Of the 121 participants who completed and returned their surveys, only three (2.5%) were males. Eighty-one percent of those who responded to the survey were between the ages of 18 and 33, and 18% were between the ages of 34 and 51. Eighty-one percent had taught for 1 to 10 years, and 19% had taught for 11 or more years. Among these participants, 61% had obtained a college degree and 37% had obtained a high school degree as their highest level of education. Over 83% of the participants had majored in Child Development and Early Childhood Education. Over 39% of the participants had 5 to 15 children in their classrooms, and 56% had 16 or more children in their classrooms. The average number of children was 19.4 with a median of 18. The range was 5 to 90 children. Over 96% of the kindergartens were located in urban areas.

Description of the Teachers' Attitudes

The questionnaire employed for this study included 15 items regarding the kindergarten teachers' attitudes toward Direct Instruction (DI) and Child-Initiated Instruction (CI) models.

Descriptive statistics regarding their attitudes toward the two instructional models is presented separately: (a) attitudes toward DI, and (b) attitudes toward CI. In addition, Appendix C includes the distribution of responses for each individual item for the DI model and the distribution of responses for each individual item for the CI model.

The Teachers' Attitudes Toward DI

A 4-point, Likert-type response scale ranging from "4: strongly agree to 1: strongly disagree" was applied to each question to determine the teachers' attitudes toward the DI model. Table 4.2. shows the mean values for the teachers' attitudes on 15 specific items. The means for all 15 statements ranged from a low of 2.50 to a high of 3.03, which had an average score of 2.79 (SD=1.04). Lower values reflect a lower level of agreement with the item.

Table 4.2

Means and Standard Deviations of Kindergarten Teachers' Attitudes Toward Direct Instruction Based On Classroom Social Behavior (n=121)

Items for Attitudes toward the DI Model	Mean	SD
An effective way to "modify classroom behaviors"	2.56	1.12
Can help teach "asking permission to talk" behavior	3.02	0.96
Effective way to teach "taking turns" behavior	2.91	0.98
Useful teaching method to teach "raising hand"	2.98	1.01
Plays an important role in "modifying behaviors"	2.94	1.08
A method to teach "sitting quietly" behavior	2.91	1.01
Successful to teach "sharing toys" behavior	2.65	1.06
Successful to teach "playing cooperatively" behavior	2.51	1.05
Helps identify and use "classroom social behaviors"	2.69	1.07
Helps children to "act and talk appropriately"	2.71	1.06
Helps children "demonstrate consideration for others"	2.61	1.06
Very successful to teach "following simple directions"	2.91	1.02
Encourages students to "share responsibility"	2.75	1.03
Helps students use strategies to "solve social problems"	2.81	1.04
A method to teach the "listening to teachers/peers"	3.03	1.02
Overall Attitudes Toward DI	2.79	1.04

Note: Attitude scale was: 4=strongly agree to 1=strongly disagree.

Further, the means for the 15 items that concerned the teachers' attitudes toward DI were clustered into three levels by the investigator so that each level had .25 differences between its highest mean value and its lowest mean value. The three levels of attitude scores were (a) 2.50-2.74, low; (b) 2.75-2.99, medium; and (c) 3.00-3.75, high. The greater mean value the higher the attitude of the teachers. Table 4.3

shows mean scores of the teachers' attitudes toward DI at three levels. Seven items were categorized at the low level, while 8 items were grouped at the medium level and no items were grouped at the high level.

As shown at the low level, the item, "successful to teach 'playing cooperatively' behavior" had a mean of 2.51, indicating that it had the lowest mean attitude score reported by the kindergarten teachers. The item, "An effective way to modify classroom behaviors" had the second lowest mean score, indicating that generally the kindergarten teachers are between "disagree" and "agree" regarding their attitude that DI can modify classroom social behaviors.

As shown at the medium level, the standard deviation for item "An effective way to modify classroom behaviors" had the highest value of 1.12, indicating greater disagreement among these teachers.

No items existed at the high level. As shown at the medium level, the standard deviation for item, "Can help teach 'asking permission to talk' behavior" had the lowest score of .96, indicating less disagreement among these teachers.

Table 4.3

Levels of Kindergarten Teachers' Attitudes Toward Direct Instruction based on Classroom Social Behavior (n=121)

Level/Item	Mean
<hr/>	
Level-1 Low (Value=2.51-2.84)	
Successful to teach "playing cooperatively" behavior	2.51
An effective way to "modify classroom behaviors"	2.56
Helps children "demonstrate consideration for others"	2.61
Helps identify and use "classroom social behaviors"	2.69
Helps children to "act and talk appropriately"	2.71
Encourages students to "share responsibility"	2.75
Helps students use strategies to "solve social problems"	2.81
<hr/>	
Level-1 Medium (Value=2.85-3.18)	
Very successful to teach "following simple directions"	2.91
Effective way to teach "taking turns" behavior	2.91
A method to teach "sitting quietly" behavior	2.91
Plays an important role "modifying behaviors"	2.94
Successful to teach "sharing toys" behavior	2.98
Useful teaching method to teach "raising hand"	2.98
Can help teach "asking permission to talk" behavior	3.02
A method to teach the "listening to teachers/peers"	3.03
<hr/>	
Level-1 High (Value=3.19-3.51)	
No items at this level	
<hr/>	

Teachers' Attitudes Toward CI

Table 4.4. shows the mean values for teachers' attitudes on 15 specific items. The means for all 15 statements ranged from a low of 2.50 to a high of 3.03 with an average score of 3.23 (SD=.89)

Table 4.4

Means and Standard Deviations of Kindergarten Teachers' Attitudes Toward Child-Initiated Instruction Based on Classroom Social Behavior (n=121)

Items for Attitudes Toward the CI Model	Mean	SD
An effective way to "modify classroom behaviors"	3.34	0.87
Can help teach "asking permission to talk" behavior	2.93	0.95
Effective way to teach "taking turns" behavior	3.15	1.00
Useful teaching method to teach "raising hand"	2.81	0.98
Plays an important role "modifying behaviors"	3.21	0.88
A method to teach "sitting quietly" behavior	2.98	0.97
Successful to teach "sharing toys" behavior	3.37	0.86
Successful to teach "playing cooperatively" behavior	3.46	0.81
Helps identify and use "classroom social behaviors"	3.41	0.84
Helps children to "act and talk appropriately"	3.45	0.85
Helps children "demonstrate consideration for others"	3.51	0.79
Very successful to teach "following simple directions"	3.06	0.88
Encourages students to "share responsibility"	3.36	0.85
Helps students use strategies to "solve social problems"	3.29	0.93
A method to teach the "listening to teachers/peers"	3.19	0.90
Overall Attitudes Toward CI	3.23	.89

Note: Attitude scale was: 4=strongly agree to 1=strongly disagree.

Further, the means for the 15 items that concerned the teachers' attitudes toward CI were clustered into three levels by the investigator

so that each level had .33 differences between its highest mean value and its lowest mean value. The three levels of attitude scores were: (a) 2.51-2.84, low; (b) 2.85-3.18, medium; and (c) 3.19-3.51, high. The greater the mean value the higher attitude of the teachers.

Table 4.5 shows the mean values of the teachers' attitudes toward CI at three levels. One item was categorized at the low level, while 4 items were grouped at the medium level and 10 items were grouped at the high level.

As shown at the low level, the item, "Useful teaching method to teach 'raising hand' behavior" had a mean of 2.81. This indicated that it had the lowest mean attitude score reported by the kindergarten teachers. The item, "Helps children demonstrate consideration for others" had the highest mean score of 3.51, indicating that the kindergarten teachers perceive that the CI Model can be used to teach this classroom social behavior. In addition, this item had the lowest standard deviation value of .79, indicating least disagreement on this item among the kindergarten teachers compared to the other items.

At the medium level, the standard deviation for the item, "Effective way to teach 'taking turns' behavior" had the highest value of 1.11, indicating greater disagreement among these teachers.

Table 4.5

***Levels of Kindergarten Teachers' Attitudes Toward
Child-Initiated Instruction Based on Classroom Social Behavior
(n=121)***

Level/Item	Mean
Level-1 Low (Value=2.51-2.84)	
Useful teaching method to teach "raising hand"	2.81
Level-1 Medium (Value=2.85-3.18)	
Can help teach "asking permission to talk" behavior	2.93
A method to teach "sitting quietly" behavior	2.98
Very successful to teach "following simple directions"	3.06
Effective way to teach "taking turns" behavior	3.15
Level-1 High (Value=3.19-3.51)	
A method to teach the "listening to teachers/peers"	3.19
Plays an important role "modifying behaviors"	3.21
Helps students use strategies to "solve social problems"	3.29
An effective way to "modify classroom behaviors"	3.34
Encourages students to "share responsibility"	3.36
Successful to teach "sharing toys" behavior	3.37
Helps identify and use "classroom social behaviors"	3.41
Helps children to "act and talk appropriately"	3.45
Successful to teach "playing cooperatively" behavior	3.46
Helps children "demonstrate consideration for others"	3.51

Factors Influencing the Teachers' Attitudes

Tables 4.2 and 4.4 show that the summated item mean value for the teachers' attitudes toward Child-Initiated Instruction Model (3.23) is higher than that of the teachers' attitudes toward the Direct Instruction Model (2.81).

In sum, the greater the mean value, the higher (the more positive the level of agreement) the attitude of the teachers toward the instruction model based on classroom social behavior of their kindergarteners. Turkish kindergarten teachers have higher (more positive) overall attitudes toward the CI Model than toward the DI model based on the classroom social behavior of their kindergarteners.

To examine the influence of various factors on the teachers' attitudes toward each of the models, regression analyses were used. Table 4.6 summarizes the correlation results for variables used in the regression analysis.

Table 4.6***Zero-Order Correlations for Factors Used in the Regression Analysis***

Factor	1	2	3	4	5	6
1. DI Total	1					
2. CI Total	-.192(*)	1				
3. Age	-.225(*)	.134	1			
4. Years taught in kindergarten	-.194(*)	.019	.700(**)	1		
5. Number of children	.025	.102	.341(**)	.331(**)	1	
6. Highest degree (0=HS degree and 1=College degree)	-.301(**)	.219(*)	.403(**)	.357(**)	.211(*)	1

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Table 4.7***Multiple Regression Results of the Teachers' Attitudes Toward Direct Instruction Regressed on Selected Independent Variables***

Independent Variable	B	Std. Error	Beta	Partial	t	Sig.
(Constant)	3.122	.260			12.017	.000
Age	-.108	.140	-.104	-.076	-.776	.439
Number of Children	.200	.135	.147	.144	1.481	.142
Highest Degree	-.482	.179	-.270	-.256	-2.699	.008
Years Taught in Kindergarten	-.067	.108	-.083	-.061	-.619	.537

Summary Information

F = 3.705

Df = 4/104

P = .007

Multiple R = .353

R Square = .125

Adj. R Square = .091

Highest degree is the only variable in the model that is significant. When interpreting the results on the teachers with a college degree or a master's degree, they have significantly lower agreement when compared to those with a high school degree.

The number of children, the teachers' ages, and their years teaching kindergarten were not significant in explaining differences in the teachers' attitudes.

Table 4.8***Multiple Regression Results of the Teachers' Attitudes Toward Child-Initiated Instruction Regressed on Selected Independent Variables***

Independent Variable	B	Std. Error	Beta	Partial	t	Sig.
(Constant)	2.793	.175			15.931	.000
Age	.113	.093	.166	.118	1.213	.228
Number of Children	.034	.092	.038	.036	.370	.712
Highest Degree	.220	.124	.184	.171	1.774	.079
Years Taught in Kindergarten	-.091	.073	-.168	-.121	-1.247	.215

Summary Information

F = 1.62

Df = 4/105

P = .174

Multiple R = .24

R Square = .06

Adj. R Square = .02

The number of children, the teachers' ages, their years in kindergarten, and their highest degree were not statistically significant. One item came close to significance, which was the highest degree. However, the overall regression model was not statistically significant.

Chapter 5

SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS FOR FURTHER STUDY

This chapter presents the summary, discussion, conclusions and recommendations of this study. Information is presented on the purpose and objectives of the study, the research questions, procedures used, discussion, conclusions, and recommendations for practice and future study.

Purpose of the Study

There were two purposes for this research. The first was to explore Turkish kindergarten teachers' attitudes toward two different kinds of kindergarten classroom instructional models: Direct Instruction and Child-Initiated Instruction.

The second purpose was to examine how the kindergarten teachers' attitudes toward these two models are affected by (a) the classroom behaviors of their kindergarteners, (b) the teachers' highest academic degree and their ages, (c) the number of years they have been teaching kindergarten, (d) the number of professional organizations they participate in, and (e) the teacher-child ratio.

This study attempted to address the following research questions:

1. Are Turkish kindergarten teachers' attitudes toward Direct Instruction (DI) and Child-Initiated Instruction (CI) positive or negative, based on the effects of these instructional methods on classroom social behavior?

2. When simultaneously examined, to what extent are the dependent variables "attitudes toward Direct Instruction" and "attitudes toward Child-Initiated Instruction" associated with the independent variables "teachers' highest academic degree, age, years spent teaching kindergarten, and the teacher-child ratio"?

Procedures

The target population for this study was the kindergarten teachers from the cities of Ankara and Adana, Turkey. There were 134 possible participants.

The instrument (KTS) used in this study was a self-administered survey containing two sections, including: (a) Demographic Information and (b) Attitudes Toward DI and the CI. The first section of the survey contained 11 items and deals with the demographic information of the participants in five areas: age, educational background, years of kindergarten teaching experience, teacher-child ratio, and membership in professional associations. The second section

of the survey includes 15 items designed to measure the participants' attitudes toward two kindergarten instructional models, Direct Instruction and Child-Initiated Instruction, based on the classroom social behavior of their kindergarteners.

A total of 15 statements, based on the current literature and research on the two instructional models, were generated according to these models. A 4-point, Likert-type response scale ranging from "4: Strongly agree" to "1: Strongly disagree" was applied to the statements to determine the teachers' attitudes.

The survey was pilot tested using 10 volunteer Turkish teachers from the Pittsburgh area. The purpose of the pilot test was to identify problems with regard to content validity and accuracy of the statements, and to secure a preliminary estimate of the reliability of the attitudes part of the survey. The attitudes part had a highly reliability value for both DI (Cronbach's Alpha =.96) and CI (Cronbach's Alpha =.95).

The investigator distributed the 134 surveys in April 2006 with the permission of the Turkish kindergarten directors. Eventually, a total of 121 completed their surveys for a return rate of 90%, which were collected for the data analysis.

All data were recorded, entered, and analyzed using the statistical program SPSS, 12.0.1 version for Windows. Descriptive statistics, correlations, and regression analysis were performed for the analysis of the data.

Discussion

The results of this study present a portrait of kindergarten teachers' attitudes toward the effectiveness of two instructional models based on the classroom social behavior of their students and their own demographics. According to the descriptive statistics information, "Turkish kindergarten teachers' attitudes toward Child-Initiated Instruction based on the classroom social behavior of their kindergarteners" reported a higher value than "Turkish kindergarten teachers' attitudes toward Direct Instruction based on the classroom social behavior of their kindergarteners". In fact, previous studies have found that Child-Initiated activities have a significant effect on children's social behaviors (Schweinhart & Weikart 1998; Weikart 1997).

Research Question 1

Are Turkish kindergarten teachers' attitudes toward Direct Instruction and Child-Initiated Instruction positive or negative, based

on the effects of these instructional methods on classroom social behavior?

The results of this study indicated that Turkish kindergarten teachers have higher (more positive) overall attitudes toward the CI Model than toward the DI model based on the classroom social behavior of their kindergarteners. This finding is consistent with the previous research on Child Initiated Instruction. For example, Schweinhart and Weikart (1997) suggest that educational programs designed for young children based on Child-initiated learning activities contribute to children's social development. In addition Schweinhart & Weikart (1998) stated that Child-initiated activities facilitate children's social responsibility and interpersonal skills

Tables 4.2 and 4.4 show that the summated item mean value for the teachers' attitudes toward Child-Initiated Instruction Model (3.23) is higher than that of the teachers' attitudes toward the Direct Instruction Model (2.81).

It can be seen in Table 4.3 and 4.5 that CI Model had ten items in its high level while DI Model had no items in its high level.

Research Question 2

When simultaneously examined, to what extent are the dependent variables “attitudes toward Direct Instruction” and “attitudes toward Child-Initiated Instruction” associated with the independent variables “teachers’ highest academic degree, age, years spent teaching kindergarten, and the teacher-child ratio”?

Teachers’ Attitudes toward Direct Instruction

The results from this study indicated that only one teachers’ demographics information, “teachers’ highest academic degree” was significantly related to teachers’ attitudes toward Direct Instruction. When interpreting the results on the teachers with a college degree or a master’s degree, they have significantly lower agreement when compared to those with a high school degree.

The number of children, the teachers’ ages, and their years teaching kindergarten were not significant in explaining differences in the teachers’ attitudes toward Direct Instruction.

Teachers' Attitudes toward Child-Initiated Instruction

The results from this study indicated that the number of children, the teachers' ages, their years in kindergarten, and their highest academic degree were not significantly related to teachers' attitudes toward Child Initiated Instruction. One came close to significance, which was the teachers' highest academic degree. However, the overall regression model was not statistically significant.

Conclusions

The conclusions were generated by the investigator using the following criteria: (1) this study was developed to explore Turkish kindergarten teachers' attitudes toward two different kinds of kindergarten classroom instructional models: Direct Instruction and Child-Initiated Instruction, and (2) to examine how the kindergarten teachers' attitudes toward these two models are affected by: (a) the classroom behaviors of their kindergarteners, (b) the teachers' highest academic degree and their age, (c) the number of years they have been teaching kindergarten, (d) the number of professional organizations they participate in, and (e) and the teacher-child ratio.(3) The findings in this study also have the potential to make

some contribution to the current discussions in Turkey regarding the two methods of instruction in the following ways: (a) by shifting the debate surrounding the two methods, from political issues to the educational issues themselves, (b) by providing valuable data for Turkish administrators who are currently attempting to improve the quality of teacher education programs, and (c) by igniting interest in the topic, encouraging both European and Turkish scholars to conduct further study. Accordingly, the conclusions are listed and explained below.

First, it is concluded from this study that Turkish kindergarten teachers believed that Child-Initiated Instruction is more effective than Direct Instruction when establishing classroom social behaviors of their kindergarteners.

Second, the results indicated that teachers' highest academic degree did play a role in influencing teachers' attitudes toward Direct Instruction based on classroom social behavior of their kindergarteners.

Third, none of the teacher's demographics information including the number of children, the teachers' ages, their years in kindergarten, and their highest academic degree contributed to the teachers' attitudes toward Child-Initiated Instruction.

Recommendations for Further Study

The following recommendations are based on the findings and conclusions from this study of Turkish kindergarten teachers' attitudes toward two instructional models based on their kindergarteners' classroom social behaviors.

Turkish Ministry of National Education (TMNE)

Two recommendations for TMNE are provided below.

First, the present research has shown that Turkish kindergarten teachers perceive Child Initiated Instruction as the most effective when establishing classroom social behavior of kindergarteners. Based on this finding, the researcher suggests that TMNE speed up the switch from Direct Instruction to Child Initiated Instruction across Turkey.

Second, TMNE states getting children ready socially for primary education as an important goal of early childhood education. Findings of this study support this goal. The researcher suggests TMNE to completely switch to Child Initiated Instruction to reach this goal. Children who have had positive experiences in groups are more likely to survive successfully during their first school experience (Katz & McClellan, 1991). They adjust to school life if they have experienced enjoyable relations with a group of peers, and in that way, gained

social skills such as taking turns, sharing, and approaching unfamiliar children (Katz & McClellan).

Directions for Future Research

After conducting this study and upon examining the literature, the investigator recognizes the need for further research. The following directions for further educational research studies are based on the findings from this study.

One direction for future research could be to include interview and observation components to the study design in order to examine the actual classroom practices of teachers to see how teacher' attitudes are reflected in their actual classroom practices. Data gathered from three sources, survey, interviews and observation, would let us construct a better or more complete picture of Turkish kindergarten teachers' attitudes toward two instructions based on classroom social behavior of their kindergarteners.

Second, researchers should continue to expand their efforts to explore the teachers' attitudes in depth, not only through quantitative methods but through qualitative approaches in order to better understand their attitudes toward the two instructional models based on their kindergarteners' classroom social behavior.

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Appendix A

KINDERGARTEN TEACHERS' SURVEY (KTS)

Kindergarten Teacher Survey

The survey is composed of two sections.

Section 1: Demographic Information

Confidentiality is assured.

Instructions: For the following Five questions, please write or check the answer in the space provided.

1. Gender: Male _____ Female _____
2. Grade level you are currently teaching _____
3. Grade level you are most comfortable teaching _____
4. I taught kindergarten for _____ year(s)
5. Areas of specialization (s) _____

Instructions: For the following six questions, please write or circle the answer which best describes yourself.

6. What is your current age? _____
7. What is your current highest completed degree? _____
8. What other degrees do you hold? _____
9. In a typical kindergarten day, What is the number of children you are currently in charge of at the same time? _____
10. In which of the following professional organizations do you currently have membership?
 - A. Mother Child Education Foundation
 - B. Turkish Psychological Counseling and Guidance Association

C. Turkish Psychological Association

11. My kindergarten is located in a setting best described as:

a) Urban b) Suburban c) Rural

Section 2: Attitudes towards the Direct Instruction Model and the Child-Initiated Instruction Model

Definitions:

Direct Instruction: “Direct Instruction is a curriculum in which teachers are provided with daily lesson scripts telling them what to say and do when instructing children” (Hiralall & Martens, 1998, p.2.). Schweinhart and Weikart, (1998) defined Direct Instruction as an approach in which teachers deliver scripted lessons and the students respond to them. Direct Instruction is a systematic approach to teaching (Vaughn, Kim, Sloan & Hughes, 2003).

Child-Initiated Instruction: Child-initiated Instruction is a curriculum in which children decide what to do and the teachers react to them. Peer collaboration and cooperative learning are the primary components of this instruction. The teachers construct classroom themes from daily events and promote children for their active participation in free play. The purpose is to create an environment for children's natural development (Schweinhart & Weikart, 1998).

Instructions:

For each of the following 15 statements, please indicate your attitudes by circling the corresponding number.

4 Strongly agree	3 Agree	2 Disagree	1 Strongly disagree
---------------------	------------	---------------	------------------------

Direct Instruction Model**Child Initiated Instruction Model**

*Teachers deliver scripted lessons

*Children decide what to do and the teachers react to them

*Students respond to them

*Peer collaboration and cooperative learning are important

*A systematic approach to teaching

*Active participation in free play

Please place a circle on both sides of the numerical scale for the following questions

Direct Instruction Model**Child Initiated Instruction Model**

1	4	3	2	1	An effective way to modify the classroom behavior of kindergarten children.	4	3	2	1
2	4	3	2	1	Can be used to teach the classroom behavior "asking permission to speak in the classroom".	4	3	2	1
3	4	3	2	1	A highly effective teaching method when teaching students how to take turns (waiting for his/her turn while playing games when reminded).	4	3	2	1

4 Strongly agree	3 Agree	2 Disagree	1 Strongly disagree
---------------------	------------	---------------	------------------------

Please place a circle on both sides of the numerical scale for the following questions

Direct Instruction Model

Child Initiated Instruction Model

4	3	2	1	A useful teaching method for teaching the classroom behavior "how to raise hand in the classroom".	4	3	2	1
---	---	---	---	--	---	---	---	---

4	3	2	1	Plays an important role in modifying classroom behavior of kindergarten children.	4	3	2	1
---	---	---	---	---	---	---	---	---

4	3	2	1	Should be used as a method to teach the classroom behavior "sitting quietly to listen to short stories (5-10) minutes."	4	3	2	1
---	---	---	---	---	---	---	---	---

4	3	2	1	Very successful to teach the classroom behavior "sharing toys"	4	3	2	1
---	---	---	---	--	---	---	---	---

4	3	2	1	Very successful to teach the classroom behavior "playing cooperatively with other kids"	4	3	2	1
---	---	---	---	---	---	---	---	---

4	3	2	1	Helps children to identify and use classroom social behavior skills.	4	3	2	1
---	---	---	---	--	---	---	---	---

4	3	2	1	Helps children to act and talk in appropriate ways with peers and adults during activity periods.	4	3	2	1
---	---	---	---	---	---	---	---	---

4 Strongly agree	3 Agree	2 Disagree	1 Strongly disagree
---------------------	------------	---------------	------------------------

Please place a circle on both sides of the numerical scale for the following questions

Direct Instruction Model

Child Initiated Instruction Model

11

4	3	2	1	Helps children demonstrate consideration for others by helping them (e.g., assist with clean-ups; help to care for materials).	4	3	2	1
---	---	---	---	--	---	---	---	---

12

4	3	2	1	Very successful to teach the classroom behavior “following simple directions at least 3 steps”	4	3	2	1
---	---	---	---	--	---	---	---	---

13

4	3	2	1	Encourages students to share responsibility for planning classroom events and activities.	4	3	2	1
---	---	---	---	---	---	---	---	---

14

4	3	2	1	Helps students use a variety of simple strategies to solve social problems (e.g., seek assistance from teacher for conflict resolution, talk about possible solutions).	4	3	2	1
---	---	---	---	---	---	---	---	---

15

4	3	2	1	Should be used as a method to teach the classroom behavior “Listening to teachers or peers”	4	3	2	1
---	---	---	---	---	---	---	---	---

Appendix B

INFORMED CONSENT FORM

To: Kindergarten Teachers in Kindergartens in Turkey
Fr: Mr. Riza Ulker, Ph.D. Candidate, The Pennsylvania State University
Re: Invitation for a Kindergarten Teacher Survey
Da: April 5, 2005

Dear kindergarten teachers,

I am, Riza Ulker, a Ph.D. candidate in the Department of Curriculum and Instruction at The Pennsylvania State University, USA. I am now doing research about teachers' attitudes toward two kindergarten instruction models based on the classroom social behavior of kindergarteners and teachers' demographics in kindergartens in Turkey. You are cordially invited to participate in this study.

In this study, you will be requested to participate in one session that will take you around 30 minutes to finish a kindergarten teacher survey, which aims to study your attitudes toward two kindergarten instruction models based on the classroom social behavior of kindergarteners.

Prior to completing the survey, you will need to read and sign two copies of an Informed Consent Form, one of which will be retained for your personal record, and the second to be given to me.

Your assistance will be highly appreciated!

Sincerely,

Riza Ulker
Principal Investigator
2433 Haymaker Rd.
Monroeville, PA 15146
011-90-322-4358147 (Turkey)
Email: rxu109@psu.edu

Dr. Thomas D. Yawkey
Project Advisor
165 Chambers Building
University Park, PA 16802
814-863-2937
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This consent letter (IRB#20660) was reviewed and approved by the Office for Research Protections at The Pennsylvania State University on 4.28.2005.

Appendix C

IRB APPROVAL LETTER

Hi Riza,

The Office for Research Protections (ORP) has reviewed the modification for the above referenced study. This request does not change the exemption status and this study continues to be exempt from IRB review. You may continue with your research.

MODIFICATION REVIEW CATEGORY:

Category 2: Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observations of public behavior unless: (i) information obtained is recorded in such a manner that human participants can be identified, directly or through identifiers linked to the participants; **and** (ii) any disclosure of the human participants' responses outside the research could reasonably place the participants at risk of criminal or civil liability or be damaging to the participants' financial standing, employability, or reputation. [45 CFR 46.101(b)(2)]

COMMENT: Approval of the March 17, 2006 email has been granted.

PLEASE NOTE THE FOLLOWING:

- Include your IRB number in any correspondence to the ORP.
- The principal investigator is responsible for determining and adhering to additional requirements established by any outside sponsors/funding sources.
- **Record Keeping**
 - The principal investigator is expected to maintain the original signed informed consent forms, if applicable, along with the research records for at least three (3) years after termination of the study.
 - This will be the only correspondence you will receive from our office regarding this modification determination.
 - **MAINTAIN A COPY OF THIS EMAIL FOR YOUR RECORDS.**
- **Follow-Up**
 - The Office for Research Protections will contact you in three (3) years to inquire if this study will be on-going.
 - If the study is completed within the three year period, the principal investigator may complete and submit a **Project Close-Out Report**.
(<http://www.research.psu.edu/orp/areas/humans/applications/closeout.rtf>)
- **Revisions/Modifications**
 - Any changes or modifications to the study must be submitted to the Office for Research Protections on the Exempt Modification Request Form available on our website:
<http://www.research.psu.edu/orp/areas/humans/applications/exemptmod.rtf>

Please do not hesitate to contact me if you have any questions or concerns.

Thank you,

Jodi

Jodi L. Mathieu, BS, CIP
Research Compliance Coordinator
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Appendix D

DESCRIPTIVE STATISTICS FOR THE DI AND CI MODELS

Descriptive Statistics for the DI Model

	N	Minimum	Maximum	Mean	Std. Deviation
modify behaviors	119	1.00	4.00	2.5630	1.12475
ask permission to talk	121	1.00	4.00	3.0248	.96145
take turns	120	1.00	4.00	2.9000	.98219
raise hand	121	1.00	4.00	2.9835	1.01639
modify behaviors	121	1.00	4.00	2.9421	1.08242
sit quietly	120	1.00	4.00	2.9083	1.01249
share toys	120	1.00	4.00	2.6500	1.05838
play cooperatively	121	1.00	4.00	2.5702	1.05535
identify and use behavior	121	1.00	4.00	2.6942	1.07116
talk appropriate	121	1.00	4.00	2.7025	1.06962
consideration for others	121	1.00	4.00	2.6116	1.06749
follow simple directions	121	1.00	4.00	2.9174	1.02946
share responsibility	121	1.00	4.00	2.7521	1.03506
solve social problems	121	1.00	4.00	2.8182	1.04881
listening to teachers/peers	121	1.00	4.00	3.0331	1.02416
Valid N (listwise)	116				

Descriptive Statistics for the CI Model

	N	Minimum	Maximum	Mean	Std. Deviation
modify behaviors	119	1.00	4.00	3.3445	.87756
ask permission to talk	121	1.00	4.00	2.9339	.95512
take turns	120	1.00	4.00	3.1500	1.00126
raise hand	121	1.00	4.00	2.8099	.98585
modify behaviors	121	1.00	4.00	3.2066	.88428
sit quietly	120	1.00	4.00	2.9833	.97000
share toys	120	1.00	4.00	3.3750	.86055
play cooperatively	121	1.00	4.00	3.4628	.81692
identify and use behavior	121	1.00	4.00	3.4050	.84240
talk appropriate	121	1.00	4.00	3.4545	.85635
consideration for others	121	1.00	4.00	3.5124	.79703
follow simple directions	121	1.00	4.00	3.0661	.88257
share responsibility	121	1.00	4.00	3.3636	.85635
solve social problems	121	1.00	4.00	3.2975	.93670
listening to teachers/peers	121	1.00	4.00	3.1983	.90939
Valid N (listwise)	116				

VITA

Riza Ulker

EDUCATION

- Ph. D 2006 Curriculum and Instruction, Early Childhood Education
Academic Ph. D. Minor in Educational Psychology
The Pennsylvania State University, University Park, PA
- M.Ed. 2001 Early Childhood Education
The Pennsylvania State University, University Park, PA
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PROFESSIONAL EXPERIENCE

- 2005-Present Early Education Coordinator, Young Scholars of
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CONVENTION PRESENTATIONS/PUBLICATIONS

- Ulker, R., Perez, R. R., Stuchul, D. & Gu, W. (2005, January). *“Understanding ESL Pre-service Teachers’ Perceptions of Needs: Building Responsive Teacher Education Programs”*. Paper presentation at The College Teaching & Learning (TLC) Conference, Orlando, Florida
- Ulker, R. & Gu, W.(2004). *“Traditional Play; Chinese and Turkish Examples”*. Paper Presentation at the Association for the Study of Play (TASP) Conference (February 18-22, 2004). Atlanta, Georgia.
- Tarman, B. & Ulker, R.(2004). *“The Nature of Teaching Through Pre-service Teachers’ Eyes.”* Paper Presentation at Hawaii International Conference on Education (January 3-6, 2004). Waikiki, Hawaii.