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The Examination of the Relationship between the Quality of Teacher-Child Interaction and Children's Self-Regulation Skills*

Öğretmen Çocuk Etkileşiminin Niteliği ile Çocukların Öz Düzenleme Becerisi Arasındaki İlişkinin İncelenmesi

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ABSTRACT: The objective of this study is to examine the validity and reliability of the Classroom Assessment Scoring System (CLASS) in Turkey and analyze the relationship between the quality of teacher-child interaction and children's self-regulation skills. 120 preschool classrooms were observed in 2012-2013 Academic Year in Ankara and it was seen that fit indices of CLASS were at an appropriate level. It was seen that the quality of teacher-child interaction was at medium level in emotional support and classroom organization domains, and at low level in instructional support domain. It was found that the quality of teacher-child interaction varies by experience and the number of professional development courses taken by teachers. It was also seen that the children's self-regulation skills showed positive and high correlation with teacher-child interaction in the attention-impulse control sub-dimension and low correlation in the positive emotion sub-dimension. Teachers need additional assistance to improve the quality of their interactions with children, especially in instructional support. It is suggested that the quality of teacher-child interaction can be improved with a coaching system supporting teachers.
Keywords: Early childhood education, quality of teacher-child interaction, self-regulation

ÖZ: Bu çalışmanın amacı, Sınıf Değerlendirme Puanlama Aracı'nın Türkiye'de geçerli ve güvenilir olup olmadığını sınayarak, öğretmen çocuk etkileşiminin niteliği ile çocukların öz düzenleme becerisi arasındaki ilişkiyi incelemektir. 2012-2013 eğitim öğretim yılında Ankara ilinde 120 okul öncesi eğitimi sınıfı gözlemlenmiş ve SDPA'nın uyum indekslerinin kabul edilebilir düzeyde olduğu saptanmıştır. Öğretmen çocuk etkileşiminin niteliğinin duygusal destek ve sınıf organizasyonu boyutunda orta, eğitimsel destek boyutunda ise düşük olduğu sonucuna varılmıştır. Öğretmen çocuk arasındaki etkileşimin niteliğinin öğretmenlerin mesleki deneyimi ve katıldıkları hizmet içi eğitim sayısına bağlı olarak farklılaştığı görülmüştür. Çocukların öz düzenleme becerisinin ise öğretmen çocuk etkileşimi ile dikkat dürtü kontrolü alt boyutuyla olumlu ve yüksek, olumlu duygu alt boyutu ile olumlu ve düşük korelasyon gösterdiği saptanmıştır. Öğretmenlerin özellikle eğitimsel destek boyutunda desteğe ihtiyaçları vardır. Bu anlamda, öğretmenleri birebir destekleyecek bir koçluk sisteminin geliştirilmesi ile niteliğin arttırılabileceği önerilmektedir.
Anahtar sözcükler: Erken çocukluk eğitimi, öğretmen çocuk etkileşiminin niteliği, öz düzenleme becerisi

1. INTRODUCTION

1.1. Quality of Teacher-Child Interactions

When reviewing the literature, it is seen that the primary purpose and function of rating scales such as ITERS, ECERS-R, FDCRS, SACERS, which assess the parameters of early childhood education, is to evaluate the physical environment of the classroom. Each of the rating scales focuses on environmental factors affecting the quality of teacher-child interaction, however they involve very few items about teacher-child interactions. A valid and reliable rating scale is required to assess the quality of teacher-child interactions because of the vital relationship between child development and teacher-child interactions. Assessing teacher-child interactions in classroom environment is considered as an important step to develop early

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childhood education policies in our country. We aimed at this study to assess the validity and reliability of the Classroom Assessment Scoring System used in measuring the quality of teacher-child interactions in preschool institutions in Turkey (Pianta et al., 2008). We also focused on the effect of the qualifications of teachers on the quality of teacher-child interactions. Mashburn and Pianta (2010) highlight that the factors such as having a significant academic background, having attended professional development courses and having considerable experience in the field may have positive effects on the classroom organization skills of teachers and the extent of emotional and instructional support they provided for the children.

When the theoretical framework of the Classroom Assessment Scoring System is analyzed, classroom environment is seemed important for child to improve his/her learning and stimulate his/her social development. There are three primary domains of teacher-child interactions: the emotional support, the classroom organization and the instructional support. Each domain includes definite dimensions. Each dimension is defined by distinctive categories or indicators including observable, behavioral definitions of teacher-child or child-child interactions in classroom environment. The Emotional Support domain consists of positive atmosphere, negative atmosphere, teacher sensitivity and regard for students' perspective dimensions. Teachers' allowing teacher-child and child-child interactions, and striving to improve children's social and emotional functioning are of paramount importance. Classrooms where teachers create a warm atmosphere, strengthen the emotional bonds between children, address children by their first names, know details on their lives outside school, pay close attention to each and every one of them, and offering them opportunities for self-expression and independent studying are essential. The Classroom Organization domain includes the behavioral management, the productivity and the instructional learning formats dimensions. Teachers manage children's behaviors in a more careful and secret manner, prepare activity schedules and materials by taking children's expectations and skills into consideration in a manner that long transitions are minimized and organize activities suitable for active participation in this kind of classrooms. The Instructional Support domain includes the concept development, the quality of feedback and the language modeling dimensions. It is believed that the interactions provided through instructional support, discussions in educational contexts focusing on understanding, feedback facilitating learning and methods stimulating and simplifying the language contribute to cognitive and language development of children. These interactions are seen in classrooms where teachers ask questions to improve problem-solving and higher order thinking skills of children, offer opportunities aimed at applying previously acquired knowledge to new and unfamiliar situations, direct learning to everyday situations, extend learning period with frequent feedback loops and adapt the use of language to many purposes (socializing, vocabulary, expression) (Pianta et al., 2008).

1.2. Self-Regulation Skill

The self-regulation skill is a structurally and functionally multi-dimensional, individual and transformational process. This skill includes cognitive, emotional, behavioral and motivational factors (Grolnick & Farkas, 2002). While assessing self-regulation achievement, it is not possible to consider this skill as separate from the developmental process. This skill improves through interactions that include various factors such as knowledge and experience gained in the family (genetic factors and care), interactions with teachers, peers, playmates, physical setting and materials (books, toys, etc.). Therefore, taking into consideration the effect of the social environment is of great importance in terms of the success of the development process of self- regulation in children (Polnariev, 2006).

Based on this point, the present study focuses on the classroom environment, which is one of the social contexts of the child, and the quality of teacher-child interactions in the

classroom environment. It is believed that the quality of these interactions is strongly associated with the self-regulation skills of children.

1.3. Research Questions

Within this framework the purpose of the study is to answer the following research questions:

1. Is the Classroom Assessment Scoring System (CLASS) a valid and reliable assessment tool for Turkish institutions for early childhood education?

2. What is the quality of teacher-child interactions in observed Turkish classrooms?

3. Do teachers' qualifications (experience and number of professional development courses they took) have an effect on the quality of teacher-child interactions?

4. Is there a relationship between the quality of teacher-child interactions and children's self-regulation skills?

2. METHOD

The quantitative research method (survey) was used in this study. Survey studies aim to determine the relationship and its level between two or more variables (Creswell, 2005; Karasar, 2009).

2.1. Participants

Participants of the current research were 120 classrooms consisting of children aged between 48-72 months old from preschool institutions affiliated to the Ministry of Education in Ankara in 2012-2013 Academic year. Stratified sampling and simple random sampling methods were used in the research. 120 classrooms were distributed as following according to the population density of the districts:

Table 1: The numbers of the classrooms in the study for each district

		48-60 months old	60-72 months old	Total
District	Keçiören	13 classes	13 classes	26
	Çankaya	13 classes	13 classes	26
	Yenimahalle	11 classes	11 classes	22
	Mamak	9 classes	9 classes	18
	Etimesgut	7 classes	7 classes	14
	Altındağ	7 classes	7 classes	14
Total		**60 classes**	**60 classes**	**120**

After determining the numbers of the classrooms by districts in the study, the researchers selected one child from each of the classrooms randomly to assess the self-regulation skills of the children. Thus, the self-regulation skills of 120 children were assessed.

2.2. Instruments

2.2.1. The Classroom Assessment Scoring System (CLASS)

The Classroom Assessment Scoring System (CLASS) was developed by Pianta, La Paro and Hamre (2008) and it was translated, by the author of this study, into Turkish as "Sınıf Değerlendirme Puanlama Aracı". Class Pre-K is an observation instrument developed to assess the quality of teacher-child interactions during early childhood education. This observation instrument has three domains: instructional support, emotional support and classroom organization. In order to participate in the Class Pre-K, observers should attend Observer Trainings and achieve a score of at least 80% in the online application test. Successful participants are awarded a certificate showing their success rates. Classrooms are observed during 20-minute-long observation periods. These periods may include events as well as

routines and transitions. Each classroom should be observed for at least two observation periods. The observation form should include notes related to dimensions and then the observer should proceed to the assessment process. In the assessment process, observer should select an appropriate number between 1 (the lowest) and 7 (the highest) for each dimension. For instance, the quality of the emotional support domain is measured by averaging its dimensions; namely positive atmosphere, negative atmosphere, teacher sensitivity and regard for students' perspective. The quality of each domain is measured, as well as the overall quality score, which is measured by averaging three different domains. 1 or 2 points indicate low quality, 3, 4 or 5 points indicate medium quality and 6 or 7 points indicate high quality.

2.2.2. The Preschool Self-Regulation Assessment (PSRA)

The Preschool Self-Regulation Assessment developed by Smith-Donald et al. (2007), is an assessment instrument which allows a performance-based assessment, and is composed of two main parts; assessor guide for the tasks that the child is expected to perform and PSRA Assessor Report Examiner Rating Scale. The first part of the scale is comprised of 10 tasks developed to assess the self-regulation performance of children. The PSRA Assessor Report Examiner Rating Scale is the second part of the scale. This part allows the assessor to assess the child's emotion, attention level and behavior based on the assessor-child interaction. It is a rubric-type assessment tool consisting of items coded between 0 and 3. The items include behavioral indicators; 0 denoting the lowest score and 3 denoting the highest score. Fındık-Tanrıbuyurdu (2012) carried out the adaptation study of PSRA Assessor Report Examiner Rating Scale in Turkish. Analyses showed the scale had a two-factor construct, which accounted for 52% of the total variance. Overall reliability coefficient (α) was 0.83 while the reliability coefficients for the Attention/Impulse Control and the Positive Emotion sub-dimensions were 0.88 and 0.80, respectively. Test-retest reliability correlation coefficient was 0.86. These results indicate that the PSRA is a valid and reliable instrument for assessing the self-regulatory skills of children in Turkey.

2.3. Data Analysis

Observations made in 120 classrooms were analyzed in order to confirm the structural validity of the Classroom Assessment Scoring System (CLASS) (translated into Turkish as 'Sınıf Değerlendirme Puanlama Aracı'). The confirmatory factor analysis is frequently used when carrying out cross-cultural adaptation studies to confirm the validity of the structures (Cokluk, Sekercioglu & Buyukozturk, 2010). In this context, the confirmatory factor analysis was performed on the Classroom Assessment Scoring System through LISREL 8.7 packaged software. Original form of the Scoring System was maintained and the system was analyzed using three-dimensional factor analysis. The internal consistency coefficient of the scale was calculated using Cronbach's Alpha measure. The compatibility rate between two observers was measured in percentage. The CLASS average points of two different days and the compatibility between the days were calculated using correlation coefficients. Arithmetic means, standard deviations and the highest-the lowest scores at the end of the observation periods were calculated using the CLASS in order to determine the quality of teacher-child interactions in preschool institutions for children between 48-72 months old. Analysis of variance for unrelated samples (ANOVA) was done in order to examine whether teacher qualifications (the experience and the number of professional development courses they took) have an effect on the quality of teacher-child interactions or not. Pearson coefficient of correlation was calculated to determine the relationship between the quality of teacher child interactions and children's (48-72 months old) self-regulation skills.

3. FINDINGS

3.1. Validity of the Classroom Assessment Scoring System

The whole system's translation from English to Turkish was done by three researchers and experts on early childhood education, who have a good command of English and are independent from each other. After the translation into Turkish was complete, coherence of the three different parts were reviewed until all three experts had a consensus. Then, the approved Scoring System was sent for review to five associate professors in order to prevent conceptual errors caused by translation. The second phase included the reverse translation method and translation from the target language to the source language was done by a professional translator who works on early childhood education industry in the USA, whose native language is Turkish and who has in-depth knowledge of both cultures. After the reverse translation, necessary corrections were made. Therefore problems arising from cross-cultural differences that may negatively affect the reliability and validity of the system or that may cause problems in practice tried to be eliminated.

Five associate professors on early childhood education and two assessment and evaluation experts provided feedbacks to help test the content validity of the scoring system. Feedback provided by the experts had a compatibility rate of .94. Indicators providing observers with hints are included in the dimensions on the observation form. In addition to the certain indicators used when observing classrooms in the USA, a wide range of indicators were added to the observation form written in Turkish. For example, observations in the classrooms show that teachers generally tend to act like control mechanisms, use imperative verbs and keep the children under pressure in the classrooms observed. In the light of the learned opinion of the experts, it was decided that such indicators should be analyzed under the dimension of regard for student's perspective. Other frequently spotted behaviors in the classrooms are complaints and threats. Based on the learnt opinion, these two behaviors were included in the indicators within the dimension of the classroom atmosphere. Besides, pilot applications of 20-minute-long periods were found to be insufficient and further observations were planned as 30-minute-long periods.

Applications carried out in 120 classrooms were analyzed in order to confirm the structural the Classroom Assessment Scoring System (translated into Turkish as Sınıf Değerlendirme Puanlama Aracı). The confirmatory factor analysis is frequently used when working on cross-cultural adaptation studies to confirm the validity of the structures. The original form of the Scoring System was maintained and the system was analyzed using dimensional factor analysis.

As a result of the analysis, it was determined to combine the dimensions of the positive and negative classroom atmospheres under the emotional support domain and to combine the dimensions of the behavior management and productivity under the classroom organization domain. In this context, when associating dimensions with each other, we theoretically remained faithful to the scoring system. It is reported that the indicators related to the negative atmosphere were not ubiquitous during the observations. The reason for this could be that major percentage of the teachers, that were observed, held at least an undergraduate degree in the field of early childhood education (ECE). There are similar programs countrywide on teacher training and having been trained in the field of early childhood education is a must for working as a teacher in preschool institutions in Turkey. Turkish teachers' having had such a homogenous and qualified training accounts for lack of negative atmosphere in Turkish preschool institutions. Furthermore, the frequency of the violence against the child is decreasing day by day in the Turkish culture and behavioral patterns such as controlling by punishment, insulting,

mocking and severe negativity are rarely observed in preschool institutions. For that reason, the positive and negative atmosphere were decided to be used as a sub-dimension of the classroom atmosphere instead of rating them separately when using the scoring system.

Likewise, indicators related to the productivity dimension were frequently observed in the classrooms where teachers clearly expressed their expectations, took responsibilities, and led problematic behaviors successfully and where students could express themselves freely (indicators related to the dimension of behavior management). In these classrooms, the time for learning was wide, additionally; routines and transitions were consistently managed. At this point, it was decided to rate the behavior management and the productivity dimensions together, which both of them formed a new dimension called "Behavior Management and Productivity".

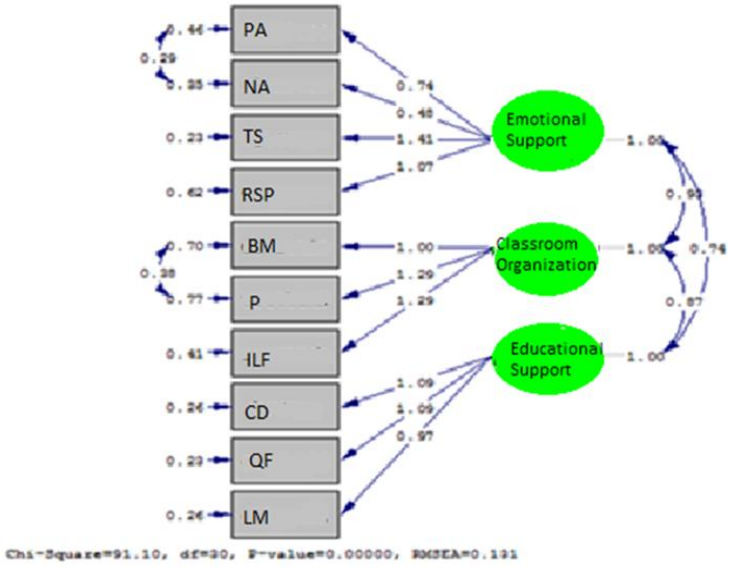


Figure 1. Classroom assessment scoring system (CLASS) path diagram

Fit indices calculated with the confirmatory factor analysis of the Classroom Assessment Scoring System adaptation in the study are as following: (x2/sd)= 3.31, GFI= 0.87, RMSEA (Root Mean Square of Approximation Errors) = 0.13, AGFI= 0.76, CFI = 0.97, NFI= 0.95, RMR= 0.074. According to the results of the confirmatory factor analysis, it is seen that the model is at an acceptable level. The compatibility of a model is regarded as acceptable when x2 ratio and levels of freedom are lesser than 5, values of GFI>.85 and AGFI>.80, RMR<.10 and RMSEA<.10 (Simsek, 2007). When GFI, AGFI, CFI and NFI values' approaching to 0.90 means perfect harmony (Hair et al., 1998), the results obtained confirm the validity of the adapted scoring system.

3.2. The Reliability of the Classroom Assessment Scoring System

The internal consistency coefficient of the scoring system was calculated based on the Cronbach's Alpha. The consistency coefficient (α) for eight dimensions, which constitute the scoring system, was determined as 0.93. Internal consistency coefficients of the domains were found as follows: .78 for the domain of emotional support, .85 for the domain of classroom organization and .92 for the domain of instructional support. Alpha value .70 means a reliable level (Altunisik et al., 2010; Nakip, 2006). When the related literature scan is taken into consideration, it could be said that the CLASS is reliable based on the alpha values. When inter-

rater reliability is analyzed, the observers received the observer training of the CLASS for using the scoring system to minimize the number of possible errors. At the end of the training, the researchers completed the reliability test, and as a result of the test; it was seen that the compatibility between the rates of the expert coder and the researcher was observed at 92%. To ensure the reliability of the scoring system, 30 classrooms were independently observed by another researcher who has a CLASS observer certificate and compatibility rates between the scores are illustrated. Results based on domains are as following:

Table 2. Two observers' reliability percentages of the classroom assessment scoring system

Dimensions	**%**
Classroom Atmosphere	0.80
Teacher Sensitivity	0.80
Regard for Students' Perspective	0.83
Behavior Management and Productivity	0.87
Instructional Learning Formats	0.87
Concept Development	0.89
Quality of Feedback	0.85
Language Modeling	0.90
All dimensions	**0.83**

After it was found that the compatibility between the observers was high, the researcher made observations in 120 classrooms during two periods for each. At this point, a total of 240 observation periods were completed. Each observation period lasted 30 minutes. The CLASS average points of two separate days and correlation between the two days were included in Table 3.

Table 3. Correlations between two observation periods

Dimensions	Classroom Atmosphere	Teacher Sensitivity	Regard for Students Perspective	Behavior Management and Productivity	Instructural Learning Formats	Concept Development	Quality of Feedback	Language Modeling
Classroom Atmosphere	.974*							
Teacher Sensitivity		.947*						
Regard for Students' Perspective			.888*					
Behavior Management and Productivity				.978*				
Instructional Learning Formats					.935*			
Concept Development						.909*		
Quality of Feedback							.923*	
Language Modeling								.910*

n: 120 *p<0.01

When the Table 3 was analyzed, correlation coefficients between the first and the second observation periods were observed at .974 for classroom atmosphere, .947 for teacher sensitivity, .888 for regard for students' perspective, .978 for behavior management and productivity, .935 for instructional learning formats, .909 for concept development, .923 for quality of feedback and .910 for language modeling. Generally, there was a high and positive level of correlation between the two observations in terms of 0.01 significant levels.

3.3. The Quality of Teacher-Child Interactions in Turkish Preschool Institutions

Based on the observations carried out, it was understood that, unlike their American counterparts, the teachers in Turkey tend to organize the whole classroom activities instead of individual and small group activities. The frequency values of these observed activities are presented in the Table 4.

Table 4. The frequency values and percentages of the different types of activities

Type of the activity	f	%
Free choice activities	51	21.2
Turkish	45	18.7
Early Literacy	42	17.5
Arts and Crafts Activities	38	15.8
Play	25	10.4
Routines (Breakfast/ Lunch /Cleaning)	12	5
Music	10	4.16
Mathematics	8	3.33
Drama	5	2.08
Science	4	1.66
Total	**240**	**100**

It was seen that the most frequently observed type of activity was free choice activities. They were followed by language (45) and literacy (42) activities.

Table 5. The minimum, maximum, mean and standard deviation values of the class domains and dimensions

Domains/Dimensions	Min.	Max.	$\overline{X}$	ss
Classroom Atmosphere	3,00	6,50	5,8083	,84499
Teacher Sensitivity	1,00	6,00	3,4708	1,48847
Regard for Students' Perspective	1,00	6,00	3,0375	1,33341
Behavior Management and Productivity	1,50	6,00	3,7479	1,36296
Instructional Learning Formats	1,00	6,00	2,9792	1,43836
Concept Development	1,00	5,00	1,9500	1,20468
Quality of Feedback	1,00	5,00	1,8917	1,19555
Language Modeling	1,00	5,00	1,8458	1,09582
Emotional Support Domain	**1,67**	**6,17**	**4,1056**	**1,10262**
Classroom Organization Domain	**1,25**	**6,00**	**3,3635**	**1,30750**
Instructional Support Domain	**1,00**	**4,67**	**1,8958**	**1,09089**

When the Table 5 was analyzed, the quality point averages of the dimensions in the observed classrooms were as following: Classroom Atmosphere had an average of 5.80 points, Teacher Sensitivity had an average of 3.47 points, Regard for Students' Perspective had an average of 3.03 points, Behavior Management and Productivity had an average of 3.74 points, Instructional Learning Formats had an average of 2.97 points, Concept Development had an average of 1.95 points, Quality of Feedback had an average of 1.89 points and Language Modeling had an average of 1.84 points. When the dimensions were compared, it was found that Language Modeling was the dimension with the lowest average (1.84 points). On the other hand, Classroom Atmosphere was the dimension with the highest average (5.80 points), a dimension of the Emotional Support domain. Classrooms had an average of 4.10 points in the emotional support domain and an average of 3.36 points in the classroom organization domain, corresponding to medium level. The Instructional Support domain had an average of 1.89 points, which corresponds to low level (1, 2=low; 3, 4, 5=medium; 6, 7=high).

3.4. The Effect of the Experience of Teachers on the Quality of Teacher-Child Interactions

The results of the analysis showed that scores obtained in the Classroom Organization and Instructional Support domains did not change significantly by the experiences of the teachers, however it was seen that the experiences of the teachers made a significant difference in terms of the scores obtained in the Emotional Support domain ($F(3, 115)=2.893$ $p<0.05$).

Table 6. The effect of the experience of teachers on the emotional support scores of the teachers

Source of the variance	Sum of squares	sd	Mean of squares	F	p	Significant difference
Between groups	13.226	4	3.307	2.893	.025	+30 years and 22-29 years
Within groups	131.451	115	1.143			+30 years and 14-21 years
Total	144.677	119				+30 years and 7-13 years
						+30 years and 1-6 years

It was seen that the teachers who have 30 years or more experience support children emotionally less than the teachers who have less experience.

3.5. The Effect of the Number of Professional Development Courses on the Quality of Teacher-Child Interactions

The Tables 7, 8 and 9 show the results of the analysis regarding the effect of the number of professional development courses on CLASS domains.

Table 7. The effect of the number of professional development courses' on the emotional support scores of teachers

Source of the variance	Sum of squares	sd	Mean of squares	F	p	Significant difference
Between groups	12.852	3	4.284	3.77	.013	Between 0 -2 and 6-9 pd courses
Within groups	131.825	116	1.136			Between 3-5 and 6-9 pd courses
Total	144.677		119			

Table 8. Number of professional development courses' effect on teachers' classroom organization scores

Source of the variance	Sum of squares	sd	Mean of squares	F	p	Significant difference
Between groups	17.664	3	5.888	3.677	.014	Between 0 -2 and 6-9 pd courses
Within groups	185.773	116	1.601			Between 0 -2 and 10-16 pd courses
Total	203.437	119				Between 3 -5 and 6-9 pd courses

Table 9. The effect of the number of professional development courses' on teachers' instructional support scores

Source of the variance	Sum of squares	sd	Mean of squares	F	p	Significant difference
Between groups	10.989	3	3.663	3.253	.024	Between 0-2 and 6-9 pd courses
Within groups	130.625	116	1.126			Between 3-5 and 6-9 pd courses
Total	141.615	119				

The results of the analysis showed that there was a significant difference between the emotional support ($F(3,116)=3.77$ $p<0.05$), classroom organization ($F(3,116)=3.677$ $p<0.05$) and instructional support ($F(3,116)=3.253$ $p<0.05$) scores of the teachers' according to the number of professional development courses they took

3.6. The Relationship between the Quality of Teacher-Child Interactions and Children's Self-Regulation Skill

Table10. The correlation between the quality of teacher-child interaction and children's' self-regulation skills scores

Classroom Assessment Scoring System Domains	Preschool Self-Regulation Assessment	
	Attention/Impulse Control	Positive Emotion
Emotional Support	.573(**)	.364(**)
Classroom Organization	.721(**)	.222(*)
Instructional Support	.622(**)	.147

n: 120 *p<0.01

It was found that there was a positive and high correlation between the attention/impulse control (which is one of the sub-dimensions of children's self-regulation skills) and all domains of the CLASS in terms of 0.01 significant levels. It was seen that the highest correlation was between the classroom organization domain and the attention/impulse control scores. In addition, it was determined that there was a positive but low correlation between the positive emotion scores (which is the other sub-dimension of the self-regulation skills) and all domains of the CLASS in terms of 0.01 significant level.

4. DISCUSSION and RESULTS

In addition to certain indicators used observing classrooms in the USA, various indicators were added to the observation form written in Turkish to help measure the quality of teacher-child interactions between children and teachers working in preschool institutions in Turkey. For example, the observations on classrooms show that teachers generally tend to act like control mechanisms, use imperative verbs and keep the children under pressure. Based on learned opinion, it was decided that such indicators should be evaluated under the dimension of regard for students' perspective. The other frequently spotted behaviors in classrooms were complaints and threats. These two behaviors were included as indicators in the dimension of classroom atmosphere. It was assumed that various indicators added to the form within the scope of conceptual validity are causing emotional support scores to be stabilized at a medium level. According to the results of the confirmatory factor analysis, while remaining faithful to the scoring system, it is understood that fit indices and internal consistency coefficients of the adapted Turkish version are in line with the results obtained in the USA, having used the original scoring system (Pianta et al., 2008) in measurements.

Furthermore, pilot applications of 20-minute-long periods were found to be insufficient and 30-minute-long observations were planned. The reason for this alteration was, as demonstrated in the Table 4, the fact that most of the observations were done during free choice activities. When observation notes were analyzed, it was noticed that the teachers got out of the class frequently and only encouraged painting and play-dough activities during the free choice activities. It was included in the observation notes that almost none of the classrooms were engaged in other activities. It was also noted that the teachers did not include pre-story and post-story activities during Turkish language learning periods and by only reading the story and focusing on summarizing, and they only allowed a few implicit questions, just enough for the children to understand the story. It was also noted that most of the teachers were not using a daily plan (80 observations), most of them did not have planned activities (83), children were spending more time with the assistant teacher (45), breakfast/lunch, toilet and other routines were taking most of the day (95), and most of the classrooms spent nearly a day on leisure activities (70). These observations were noted down under the "observations" section of the CLASS. Reading and writing preparation activities were observed 42 times and it was found that letter writing covered nearly the whole activity. It was also found that the teachers only organized activities that were included in textbooks and most of the teachers named these activities as "homework" and "lesson". Musical activities, which covered just a small portion of activities, included repeated sessions of singing songs that were taught in the classrooms and involved no other activities. In addition, original observation form includes "individual activity" and "small group activity" titles under the types of activities. However, 120 classrooms observed within the scope of this research included no small group or individual activities but only whole class activities. On the contrary, the Early Childhood Education Program under the Ministry of Education strongly suggests that teachers should encourage small group and individual activities based on the interests and needs of each child (MEB, 2013).

When the findings regarding the scores on the quality of teacher-child interactions in Turkey were examined, it was determined that it had an average of 4.10 points in the emotional support domain and 3.36 points in the classroom organization, corresponding to medium level. Instructional support domain had an average of 1.89 points, which corresponds to low level (1, 2=low; 3, 4, 5=medium; 6, 7=high). In a study carried out by Early et. al. (2005), 694 classrooms and 730 preschools in 11 different states of the USA were rated using the CLASS. Quality points of the classrooms in terms of the dimensions were as following: Positive Atmosphere had an average of 5.28 points, Negative Atmosphere had an average of 1.59 points, Teacher Sensitivity had an average of 4.70 points, Regard for Students' Perspective had an average of 1.59 points, Behavior Management had an average of 4.97 points, Productivity had an average of 4.50 points, Instructional Learning Formats had an average of 3.90 points, Concept Development had an average of 2.09 points, Quality of Feedback had an average of 2.09 points and Language Modeling had an average of 2.03 points. When these results were compared with the results of the Turkish adaptation, only the dimension of "Regard for Students' Perspective" was rated higher in Turkey. When these findings were compared with My Teaching Partner, a study conducted by Pianta et al. in 2008b, at 164 different early childhood education centers, 4.94 average points of the Classroom Organization domain were higher than 3.36 average points of the Classroom Organization domain observed in the classrooms in Turkey (cited Pianta et al., 2008a). Another adaptation of the CLASS, conducted in Finland by Pakerinen et al. in 2010 demonstrated similar results with classrooms in Turkey in terms of a high level of class atmosphere dimension (average 5.30 points). Different from Turkey and the USA, the teacher sensitivity, regard for students' perspective, behavior management, productivity and instructional learning formats dimensions in Finland are located at the higher end of the medium level (dimension averages varying between 4.74 and 5.67 points). It was also noted that instructional support dimension of the classrooms in Finland was

different than the classrooms in Turkey and USA. The classrooms in Finland had an average of 3.76 points in the concept development, a dimension of the instructional support domain, an average of 3.89 points in the feedback quality dimension and an average of 4.27 points in the language modeling dimension. In this context, the instructional support values in classrooms in Finland were at medium level, a higher level of quality compared to classrooms in Turkey and the USA.

When the findings regarding the effect of the characteristics of teachers on the quality of teacher-child interactions were examined; it was found that the number of professional development courses taken by teachers had a positive effect on the quality of teacher-child interactions. A wide range of studies showed that trainings/courses had a positive effect on the support given by teachers to children in classrooms. Dickinson and Caswell (2007) prepared a 45 hour-long in-service course on language skills, which is one of the instructional support components. They taught basic information about literacy activities and presented beneficial examples to teachers. The teachers also received consultancy service on literacy activities. After six months, the researchers found that the teachers had higher scores on all assessment tools measuring the support they gave to the children in the classroom. Similarly, Jackson et al. (2008), also implemented a 15-week-long professional development course on language and literacy. Researchers stated that after the professional development course, teachers improved themselves significantly on planning and doing literacy activities in the classroom. Hamre et al. (2012b), implemented a 14-week-long course aimed to improve the quality of teacher-child interactions. Classroom interactions of 440 early childhood education teachers were assessed by the CLASS in the beginning of the course. Afterwards these teachers took the effective classroom interactions course. Results showed that the teachers in the experimental group had higher knowledge and skills on building effective classroom interactions and they had more positive thoughts than the teachers in control group. It was also found that the teachers who took this course provided more effective emotional support (ES= .41) and instructional support (ES= .66) for the children. The data related to the classroom organization showed that teachers who took the course were more talented on providing educational opportunities with the children. When findings regarding the experience of the teachers were examined; it was found that it had an effect on the quality of emotional support provided by the teachers with the children. Teachers who had more experience had lower quality scores on the emotional support domain. Because being an early childhood education teacher requires being patient, tolerated and calm all the time, people who practice this profession for a long time can face difficulties to continue their positive attitudes or can feel exhausted. Moreover, when they practice this profession for a long time, their motivation could decrease and they may not feel the same excitement about being a teacher as before. There is also a huge generation gap between the teachers who have more than 30 years of experience and children who are 48-72 months old. This gap can create difficulties for these teachers to be sensitive to children's needs and interests. In the CLASS, punishing, threat and shouting at children are the indicators of the classroom atmosphere which is one of the dimensions of emotional support domain. These types of indicators were rarely seen during the observations in this study. It is thought that teachers still have deeply rooted and traditional attitudes towards education. These traditional attitudes could also account for why the scores of teachers were not enough in the dimension of regard for students' perspectives. Pianta et al. (2002), conducted a study with 233 early childhood education teachers across three states and they stated in their study that there was no significant difference between the quality of teacher-child interaction scores and the experience of teachers' or their having a Master's degree. On the other hand, Thomason and La Paro (2013) found that there was a significant relationship between the experience of teachers and emotional support scores (r=.10, p\.01). Similarly the relationship between the quality of teacher- child interactions and the self-regulation skills of children has been revealed through several studies (Hamre et al., 2012;

Merritt et al., 2012; Perry et al., 2002; Rimm-Kaufmann et al., 2009; Sammons et al., 2008; Silva et al., 2011). This study shows that there is a high correlation between attention/impulse control (which is one of the cognitive sub-dimensions of children's self-regulation skill) and all domains of CLASS in terms of 0.01 significant level. Güler Yıldız et al. (2014), also used CLASS's Turkish version which was adapted in this paper. Researchers aimed to examine children's self-regulation skills according to teacher-child interaction quality in their study. They assessed children's self-regulation skills in 4 classrooms, selected according to the quality level of teacher-child interaction (2 high, 2 low). Similarly, they presented that executive function skill, which makes up the cognitive aspect of self-regulation skills of children in classrooms with high level of teacher-child interaction is higher than the ones in the classrooms with low teacher-child interactions. We have determined that there was a low correlation between the positive emotion scores (which is the other sub-dimension of the self-regulation skills) and all domains of the CLASS. Guler Yıldız et al. (2014)'s study finding also showed parallelism with ours. They presented that children's social adaptation and delay of gratification skills do not differ according to the quality of teacher-child interactions in their classrooms. Both of these studies' findings show educators' that positive emotion can be assessed with different measurement tools besides PSRA and the relationship of these skills with the quality of teacher-child interactions can be revealed. And also, the quality of teacher child interaction has an importance on developing children's self-regulation skills especially at cognitive aspects (attention/impulse control, executive function). Ocak (2010) also found that children being in positive interactions with their teachers use problem solving skills examined within the framework of executive functions more effectively and produced more ideas. Williford et al. (2013) examined to what extent children's individual interactions with their teachers and peers are related to their self-regulation skills. It was found out that there was a relationship between children's positive interactions and executive functions through a study where 341 children were observed through direct assessment and teacher reports. It was also put forth that children's active participation in activities and their emotional regulation skills were related. Rimm-Kaufman et al. (2009) revealed that the quality of teacher-child interactions and particularly effective classroom management ensured that children had better behavioral and cognitive self-regulation. Hamre et al. (2012) worked with children with an average age of 4.17 from 325 preschools in their study where they examined the relationship between the quality of teacher-child interactions and children's development. Researchers assessed self-regulation skills by using the Pencil Tap and Backward Digit Span tasks. In the study, it was seen that children's executive function scores were higher in classrooms where teacher sensitivity was high. When the results of this study were examined, it was seen that the high quality of teacher-child interactions affected children's executive functions positively. These results support the research findings. Perry et al. (2002) conducted a study for the purpose of finding out the strategies teachers use to support children's self-regulation skills in literacy activities and found that children showed self-regulatory skills in their learning process by performing open-ended activities, making decisions that would be effective on their learning, controlling the challenges they experience and making self-assessments. Therefore it is very important that teachers give some autonomy to children in the classroom in supporting their self-regulation skills.

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Uzun Özet

Literatür incelendiğinde; okul öncesi eğitimin niteliğinin yapı bileşenlerini değerlendiren ve bazılarının Türkçe'ye adaptasyonu da yapılmış ITERS, ECERS-R, FDCRS, SACERS gibi ölçme araçlarının birincil amacının ve işlevinin sınıfın fiziksel ortamını değerlendirmek olduğu görülmektedir. Bu ölçme araçlarından her biri öğretmen çocuk arasındaki etkileşime ilişkin çok az sayıda madde içermekle birlikte niteliğe etki eden çevresel faktörlerin değerlendirilmesine odaklanmaktadır. Çocuğun gelişimi ile öğretmenle olan etkileşimi arasındaki önemli ilişki, öğretmen çocuk arasındaki etkileşimin niteliğinin değerlendirilmesi için kullanılabilecek geçerli ve güvenilir bir ölçme aracına olan ihtiyacı doğurmaktadır. Sınıf ortamında öğretmenin çocukla olan etkileşiminin değerlendirilmesi ülkemizde okul öncesi eğitim politikalarını geliştirecek önemli bir adım olarak görülmektedir. Bu araştırma ile Türkiye'deki okul öncesi eğitim kurumlarında çalışan öğretmenler ve çocuklar arasındaki etkileşimin niteliğini ölçmede kullanmak üzere Sınıf Değerlendirme Puanlama Aracı'nın geçerlik ve güvenirlik çalışmasının gerçekleştirilmesi amaçlanmıştır (Pianta ve ark., 2008). Alan yazında öğretmen özelliklerinin, öğretmen çocuk etkileşiminin niteliği üzerine etkisini ortaya koyan çok sayıda araştırmaya rastlanmaktadır (Dickinson and Caswell, 2007; Jackson et al., 2008; Hamre et al., 2012b; Thomason and La Paro, 2013). Bu araştırmada da; öğretmen özelliklerinden mesleki deneyim ve katılınan hizmet içi eğitim kurs sayısının öğretmen çocuk etkileşiminin niteliği üzerine etkisi sınanmıştır. Bununla beraber; öğretmen çocuk arasındaki etkileşimin niteliği ve çocukların öz düzenleme becerisi arasındaki ilişki de incelenmiştir. Araştırma, taramaya (survey) dayalı nicel yöntemdedir. Çalışma grubunda, 2012-2013 eğitim öğretim yılında Ankara'nın altı merkez ilçesinde Milli Eğitim Bakanlığına bağlı resmi okul öncesi eğitim kurumlarındaki 48-72 aylık çocuklar için oluşturulmuş 120 sınıf yer almaktadır. Bu sınıfların, nüfus yoğunluğuna göre çalışma grubunda ne oranda yer alacağı tabakalı örnekleme ile belirlenmiştir Bu sınıflarda öğretmen çocuk etkileşiminin niteliği gözlemlenmiştir. Ardından araştırmacılar rastgele örnekleme ile her sınıftan bir çocuk seçmiştir. Seçilen 120 çocuğun öz düzenleme becerisi değerlendirilmiştir. Araştırmada okul öncesi eğitim öğretmenlerinin demografik özelliklerini incelemek için Kişisel Bilgi Formundan; çocukların öz düzenleme becerisini belirmek adına Okul Öncesi Öz Düzenleme Ölçeği'nden; öğretmen çocuk arasındaki etkileşiminin niteliğini saptamak için Sınıf Değerlendirme Puanlama Aracı'ndan yararlanılmıştır.

Analizler sonucunda; SDPA'nın uyum indekslerinin istenilen düzeyde olduğu görülmüş, aracın üç boyut ve 8 alt boyuttan oluştuğu saptanmıştır. Tüm boyut ve alt boyutların Cronbach Alfa güvenirlik katsayıları yüksek düzeydedir. Sınıf Değerlendirme Puanlama Aracı'nın; dil, kapsam ve yapı geçerliliğine ilişkin bulgular ışığında; SDPA'nın geçerli bir değerlendirme aracı olduğu sonucuna varılmıştır. Gözlemlenen sınıfların, duygusal destek ve sınıf organizasyonu niteliğinin orta, eğitimsel destek niteliğinin ise düşük düzeyde olduğu saptanmıştır. Okul öncesi eğitim öğretmenlerinin duygusal destek, sınıf organizasyonu ve eğitimsel destek puanları arasında hizmet içi eğitim/kurs sayısına göre anlamlı bir fark olduğu belirlenmiştir. Analiz sonuçlarına göre, öğretmenlerin aldıkları hizmet içi eğitim/kurs sayısı arttıkça her üç boyuttan aldıkları puanlar da yükselmektedir. Öğretmen çocuk arasındaki etkileşimin niteliğini kapsamında okul öncesi eğitim öğretmenlerinin yalnızca duygusal destek puanları arasında deneyime göre anlamlı bir fark olduğu ortaya konmuştur. Analiz sonuçlarına göre, 30 yıl ve üzeri deneyime sahip okul öncesi eğitim öğretmenlerinin çocuklara sundukları duygusal desteğin, daha az

deneyime sahip öğretmenlerden düşük olduğu belirlenmiştir. Öğretmen çocuk arasındaki etkileşimin niteliği ile çocukların öz düzenleme becerisi arasındaki ilişkinin incelendiği analizler sonucunda; çocukların öz düzenleme becerisi dikkat dürtü puanları ile öğretmen çocuk arasındaki etkileşimin alt boyutlarında (duygusal destek, sınıf organizasyonu ve eğitimsel destek) 0.01 anlamlılık düzeyinde olumlu ve yüksek korelasyon olduğu saptanmıştır. Çocukların öz düzenleme becerileri olumlu duygu puanları ile öğretmen çocuk arasındaki etkileşimin alt boyutlarında ise 0.01 anlamlılık düzeyinde olumlu ve düşük korelasyon olduğu görülmektedir.

Araştırma sonuçları ışığında; öğretmen çocuk arasındaki etkileşimin niteliğinin orta ya da düşük düzeyde olduğu sınıflarda; öğretmenlerin ihtiyaçları olan bilgi ve beceriler için eğitim programları düzenlenebilir ve öğretmenlerin bu eğitim programlarına katılımı zorunlu olabilir. Öğretmenlere çocuklara sundukları duygusal desteğin niteliğini arttırmak için sınıflarında sıcak bir atmosfer yaratmaları, çocuklarla aralarındaki duygusal bağı kuvvetlendirmeleri, çocuklara isimleriyle ve saygıyla hitap etmeleri, onları daha iyi tanımak amacıyla okul dışındaki hayatları ile ilgili detayları öğrenmeleri, her birine ayrı ayrı ilgi göstermeleri, çocuklara sık sık kendilerini ifade etme ve bağımsız çalışma fırsatı sunmaları ve çocukları öğrenmeye karşı motive etmeleri önerilebilir. Sınıf organizasyonu konusundaki becerilerini arttırmak için; çocukların davranışlarını etkili şekilde yönlendirmeleri, etkinlik planlarını ve materyallerini çocukların nadiren zorlanacakları şekilde planlamaları, uzun geçişleri en aza indirgemeleri, etkinlikleri çocukların aktif katılımına uygun şekilde düzenlemeleri ve çocukların davranış, dikkat, zaman yönetimi becerilerini geliştirme konusunda fırsatlar sunmaları önerilebilir. Çocuklara sundukları eğitimsel desteğin niteliğini arttırmak için, çocuklara problem çözmeyi ve yüksek düzeyde düşünmeyi gerektiren sorular sormaları, önceden öğrenilen bilgilerin yeni durumlara uygulanması için fırsat sunmaları, öğrenmeyi günlük hayatta karşılaşılan durumlara göre yönlendirmeleri, sık sık geri bildirimler vermeleri, çocuklar için etkili bir dil modeli olmaları, günlük planlarını hazırlama ve uygulama konusunda daha özenli olmaları, serbest zaman etkinlikleri sırasında sınıftan çıkmayarak çocuklarla etkileşim halinde olmaya devam etmeleri önerilebilir. Öz düzenleme becerisini geliştirebilmek amacıyla dikkat becerisini geliştiren, çocukların dürtülerini kontrol etmelerine fırsat sunan, duygu ve davranışlarını düzenlemelerini sağlayacak etkinlikler planlamaları önerilebilir. Sınıflar, çocukların daha iyi davranış düzenlemelerine imkân verecek şekilde düzenlenebilir.