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## An Application of Hierarchical Linear Modeling: OKS-2006 Science Test Achievement

Tülin Acar\*

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### Abstract

*Problem Statement:* Recent research has commonly used hierarchical linear models (HLMs). Also known as multilevel models, HLMs can be used to analyze a variety of questions with either categorical or continuous dependent variables. With hierarchical linear models, each level (e.g., student, classroom, and school) is formally represented by its own sub-model. This study presents detailed descriptions of practical procedures to conduct nested data analysis using HLM.

*Purpose of Study:* The purpose of this study was to illustrate the use of HLMs to identify the effects of school districts and students' gender on students' science achievement.

*Methods:* A stratified random sampling method was used for the study, and the data was gathered from 10,727 students nested in 81 school districts. HLM 6.02 was used in order to build a two-level HLM model. In the analysis, a one-way ANOVA with random effects model was used first, followed by a Random-Coefficients Regression Model and finally the addition of a Level-1 and a Level-2 Predictor.

*Results:* According to the results of the one-way random effects ANOVA model, considerable variations were observed in the school means. 0.004 of the variability in science achievement was observed between school districts. According to the results of the Random-Coefficients Regression Model, a significant difference was observed in the gender slope (i.e., the effect of gender on science scores) across schools. According to the results of the contextual model with gender in level 1 and socio-economic status (SES) in level 2, SES had a significant effect on the means of school science achievement. The effect of gender on science achievement in schools with

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the average percentage of SES was statistically different from zero. Further, no significant effect by SES on the gender slope was observed.

*Recommendations:* Since the national exams show nested data structures, our recommendation is to use statistical models containing the hierarchies in which the student is classified, the characteristics belonging to these hierarchies, and the characteristics belonging to the student in the analyses concerning the factors that affect the success of the student.

*Keywords:* Hierarchical linear modeling, multilevel models, science achievement

Hierarchical linear models (HLMs) have been applied to nested structured data in the social sciences (Franks et al., 1996; Webster et al., 1996; Liu, 2004; Opdenakker & Van Damme, 1998; Tamada, 2002). HLMs are used for continuous outcomes, while hierarchical nonlinear models (HGLM) are used for dichotomous outcomes (Bryk & Raudenbush, 1992). Nested data structures are generally used in many research studies since individuals exist within organizational structures, such as families, schools, cities, countries. Students also exist within hierarchical structures, including classrooms, schools, school districts, cities, and countries (Osborne, 2000). The data has a structure that violates one of the first assumptions associated with the conventional linear model (i.e., observations in the data are sampled independently of the other observations) when data is nested. For example, education research is interested in the achievement (i.e., test scores) by the students. Students are nested within classrooms. Classrooms are nested within schools, and those schools are nested within school districts. Thus, students in the same classroom share a common teacher, a common teaching style, and learning experiences. Students' scores can be correlated with scores of other students in the same classroom. If this correlation is ignored, statistical analysis can indicate differences that do not actually exist, thereby resulting in inflation of the type 1 error rate (Williams, 2003). Consequently, the use of traditional statistical approaches with most monitoring data yields biased estimates of the relationships among variables (Willms, 1999).

As shown in Figure 1, students are nested within school districts.

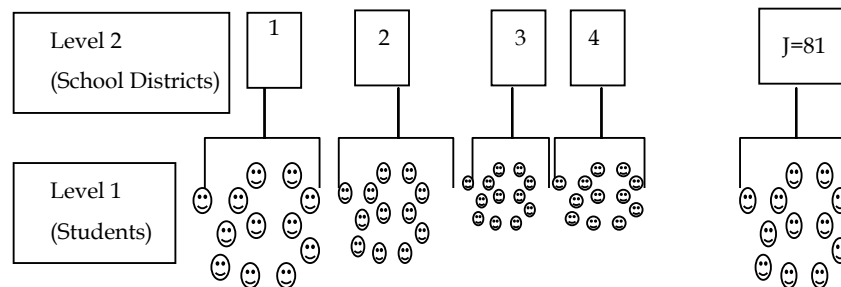


Figure 1. Hierarchical data structure.

As seen in Figure 1, on level 1, each student can be assigned to one and only one unit on level 2. Generally, observations can be defined for each level (e.g., student level and school level). HLMs are used to analyze the effects of predictor variables from different levels on one outcome variable on level 1. According to the study by Novy and Francis (1989), common individual characteristics, such as gender and ethnicity, have occasionally been included as factors in group outcome studies. Wang (2000) showed the relevance of HLMs to the Trends in International Mathematics and Science Study (TIMSS) data analysis, and Zhang and Zhang (2000) modeled school and district effects on the mathematics scores of the Dekaware Student Testing Program (DSTP) using HLM. In HLM, variables can be modeled in many types. In this study, three types are explained, and the purpose of this study is to illustrate the use of HLMs.

### ***1-Unconditional model or One-way ANOVA with Random Effects***

The simplest HLM is a model with no predictors. It is also called the unconditional model or one-way ANOVA with random effects. When using such a model, the researcher is still interested in predicting an outcome variable but does not use any student level predictors or group level predictors. In HLM, the unconditional model is equivalent to a one-way ANOVA with random effects. Thus, a variance component is included for the group level or level-2, and another variance component is included for the student level or level-1 (Raudenbush & Bryk, 2002). For example, the level-1 (i.e., student level) equation for predicting  $Y_{ij}$ , i.e., science achievement, for student  $i$  associated with school district  $j$ , can be formulated as follows:

$$y_{ij} = B_{0j} + r_{ij}$$

where  $y_{ij}$  represents the science test score for student  $i$  in school district  $j$ ,  $B_{0j}$  is the mean science test score for school district  $j$ , and  $r_{ij}$  is the student level random deviation around school district  $j$ 's mean or the level-1 error. The level-2 (i.e., school district) model would then be:

$$B_{0j} = y_{00} + u_{0j}$$

where  $B_{0j}$  is the mean science test score for school district  $j$ ,  $y_{00}$  is the overall grand mean science test score, and  $u_{0j}$  is school district  $j$ 's random deviation around the grand mean ( $Var(B_{0j}) = \tau_{00}$ ). The full model can be represented as:

$$y_{ij} = y_{00} + u_{0j} + r_{ij}$$

The unconditional model is usually used in HLM analysis to determine whether partitioning the variance in science test scores into separate levels is necessary (Raudenbush & Bryk, 2002). The intraclass correlation coefficient offers a way to assess the proportion of variance in the science test scores (i.e., outcome variable) that

can be explained at the second level (i.e., between groups) of the model relative to the total variance in the model. The intraclass correlation can be represented as:

$$\rho = \tau_{00} / (\tau_{00} + \sigma^2)$$

where  $\sigma^2$  is the within-group variability and  $\tau_{00}$  is the between-group variability. A high intraclass correlation indicates high dependency within groups; thus, the hierarchical structure of the data should be taken into consideration. If the intraclass correlation is zero, none of the variability in the outcome variable is due to between group differences; thus, the hierarchical structure of the data can be ignored. Even a low intraclass correlation indicates a dependency within groups; thus, HLM should be used.

#### *2-Adding a Level-1 Predictor: Random-Coefficients Regression Model*

Additionally, HLM is a regression technique. Indeed, HLM is similar to that of OLS regression. On level-1 (i.e., the student level), the analysis is similar to that of OLS regression. Hence, an outcome (i.e., a dependent) variable is predicted as a function of a linear combination of one or more level-1 variables plus an intercept (Raudenbush & Bryk, 2002). In this study, the outcome variable is science achievement test scores measured at the student level. In level-1, the independent variables are gender and school district. Note that the predictors added to the model may be either continuous variables or categorical variables (Williams, 2003). The level-1 model (i.e., the student level) could be defined as:

$$y_{ij} = B_{0j} + B_{1j}X_{ij1} + r_{ij}$$

where  $y_{ij}$  represents the science test score of  $i$  student in  $j$  school district,  $B_{0j}$  represents the intercept in the  $j$  school district,  $B_{1j}$  represents the beta coefficient for gender in the  $j$  school, and  $r_{ij}$  is the error term for level-1. This error term is assumed to be independent among students. The level-2 (i.e., school district level) equations can be modeled as follows:

$$B_{0j} = y_{00} + u_{0j}$$

$$B_{1j} = y_{10} + u_{1j}$$

$B_{0j}$  and  $B_{1j}$ , the intercept values estimated at level 1, are used as outcome variables (i.e., science test scores) in the level 2 equation.  $y_{00}$  is the overall grand mean science test scores.  $y_{10}$  is the mean regression slope across the gender variable.  $u_{0j}$  and  $u_{1j}$  are level 2 random effects. The full model can be represented as follows:

$$y_{ij} = y_{00} + u_{0j} + y_{10}Gender + u_{1j}Gender + r_{ij}$$

This model allows the researcher to estimate the variation in the regression coefficients (i.e., intercepts and slopes) across different subgroups (Subedi, 2003; Koopmans, 1998). HLM has a better ability to contain regression effects, which remain a source of concern for the interpretation of basic skills evaluation data.

*3-Adding a Level-1 and a Level-2 Predictor: Model in which the Constant and Slope Parameters are outputted*

Plausibly, a HLM can include a level-2 predictor to help explain the variability between subgroups. In this model, a level-1 equation is the same as level-1 in the regression with random effects model. Level 1 regression parameters are modeled as outcome variables in the level 2 regression equation. The level-2 (i.e., school district level) equations can be modeled as follows:

$$B_{0j} = y_{00} + y_{01}W_{1j} + u_{0j}$$

$$B_{1j} = y_{10} + y_{11}W_{1j} + u_{1j}$$

$B_{0j}$  and  $B_{1j}$ , the intercept values estimated at level 1, are used as outcome variables (i.e., science test scores) in the level 2 equation.  $B_{0j}$  represents the intercept in the  $j^{\text{th}}$  school district.  $B_{1j}$  represents the beta coefficient for gender variable in the  $j^{\text{th}}$  school district.  $y_{00}$  is the mean intercept across the level 2 school districts.  $y_{10}$  is the mean regression slope across the school districts.  $u_{0j}$  and  $u_{1j}$  are level 2 random effects.  $W_{1j}$  is a level 2 independent variable (e.g., socio-economic status (SES)).

A two-level model in HLM consists of two sub-models at level 1 (i.e., the student level) and level 2 (i.e., the school level). In the level 1 model, science test scores are estimated as a function of the student's gender. Also, in the level 2 model, science test scores are estimated as a function of school district's SES (i.e., income).

## Method

### *Population and Sampling*

The entire population for the this study was 798,307 students taking 2006 student selection and placement tests for secondary school-examination as conducted by the Ministry of National Education in Turkey. A stratified random sampling method was used, and the data was gathered from 10,727 students. Variables for the study were student answers for the science test, their gender, their school districts, and each school district's SES.

### *Instruments*

The OKS-2006 science test is a 25 item multiple choice test offering four options for each question. The Cronbach's Alpha internal consistency coefficient was calculated as 0.792.

### *Data Analysis*

The OKS data has a hierarchical structure with students nested within school districts. The data was gathered from 10,727 students nested in 81 school districts. HLM 6.02 was used to build a two-level HLM model. In the analysis, first, a one-way ANOVA with random effects model was built in order to partition the variance within groups and between groups. Then, in order to investigate the effects of school districts and student characteristics on the science achievement of students, a means as outcomes model with one level 1 covariate was built by adding different groups of variables successively at level 2. The independent variables for the level-1 model are gender, which was coded as 0 for boys and 1 for girls, and school districts. Cities in Turkey are defined as school districts. School districts, their SES, and school district student counts are presented in Table 1.

**Table 1**

#### *Incomes of School District and the Number of Students*

School district code	School district	SES (Income YTL)	Number of Students	School district code	School district	SES (Income YTL)	Number of Students
1	Adana	2834	670	42	Karabük	1919	22
2	Adıyaman	1112	171	43	Karaman	1923	33
3	Afyonkarahisar	1530	153	44	Kars	2438	40
4	Ağrı	688	114	45	Kastamonu	1073	32
5	Aksaray	1170	44	46	Kayseri	2158	178
6	Amasya	1743	80	47	Kırkkale	2188	40
7	Ankara	3333	1838	48	Kırklareli	3301	27
8	Antalya	2657	392	49	Kırşehir	4349	29
9	Ardahan	1020	13	50	Kilis	1803	7
10	Artvin	2588	39	51	Kocaeli	2201	190
11	Aydın	2444	197	52	Konya	7468	211
12	Balıkesir	2429	196	53	Kütahya	1883	61
13	Bartın	1285	9	54	Malatya	2186	88
14	Batman	1473	41	55	Manisa	1716	134
15	Bayburt	1232	7	56	Mardin	2978	37
16	Bilecik	3131	45	57	Mersin	1191	220



17	Bingöl	963	53	58	Muğla	2970	79
18	Bitlis	782	65	59	Muş	4007	42
19	Bolu	5106	31	60	Nevşehir	700	29
20	Burdur	2364	51	61	Niğde	2564	24
21	Bursa	3037	419	62	Ordu	2158	68
22	Çanakkale	2829	64	63	Osmaniye	1289	45
23	Çankırı	1376	26	64	Rize	1401	34
24	Çorum	2003	93	65	Sakarya	2298	98
25	Denizli	2584	150	66	Samsun	2554	95
26	Diyarbakır	1591	204	67	Siirt	2035	31
27	Düzce	1384	37	68	Sinop	1346	24
28	Edirne	2911	49	69	Sivas	1767	74
29	Elazığ	2065	76	70	Şanlıurfa	1694	63
30	Erzincan	1403	32	71	Şırnak	1221	18
31	Eskişehir	1286	108	72	Tekirdağ	773	88
32	Gaziantep	3044	164	73	Tokat	3026	57
33	Giresun	1929	62	74	Trabzon	1660	78
34	Gümüşhane	1748	9	75	Tunceli	1824	12
35	Hakkâri	1303	37	76	Uşak	1919	27
36	Hatay	1012	151	77	Van	1739	73
37	Iğdır	2128	17	78	Yalova	1041	24
38	Isparta	1035	64	79	Yozgat	4195	58
39	İstanbul	1829	1457	80	Zonguldak	1032	50
40	İzmir	3711	512	81	Erzurum	3597	123
41	Kahraman	3894	124				

### Results and Comments

First of all, by constructing the random influence one-way ANOVA model, the total variability in the science test scores has been analyzed in two separate sections, i.e., between school districts and between students. The science test scores for the students and average science scores for the students in districts in which they receive their education has been brought into a model as a function of random error. Findings related to the parameter estimations made in HLM are shown in Table 2.

**Table 2***One-way Random Effects ANOVA Model in HLM*

Fixed Effect	Coefficient	Std. Error	T-ratio	D.f.	P-value
Mean science test scores ( $\beta_0$ )	7.830	0.066	119.141	80	0.000*
Intercept, $\gamma_{00}$					
Random Effect	Std.Deviation	Variance Component	Chi-square	D.f.	P-value
$\tau_{00} = \text{var}(u_0)$ represents the between-group variability.	0.285	0.081	123.503	80	0.002*
$\sigma^2 = \text{var}(r_{ij})$ represents the within-group variability.	4.668	21.788			

Table 2 shows the results from the one-way random effects ANOVA model. Average school mean for science achievement was statistically different from zero ( $\gamma_{00}=7.830$ ,  $p<0.05$ ). Considerable variations were observed in the school means ( $\chi^2=123.503$   $P<0.05$ ). The Intraclass correlation coefficient [ $\tau_{00} / (\tau_{00} + \sigma^2) = 0.081 / (0.081 + 21.788) = 0.004$ ] indicated that 0.004 of the variability in science achievement occurs between school districts (i.e., 0.996 of the variability is within individual schools). On the other hand, in the OKS-2003 data, 0.996 of the variation in students' science scores was between school districts. Considerable variation could be explained using school or student level variables. A recommended next step in model building was to select student level variables in an effort to explain the within school variation in science achievement. The gender variable was added to the model and was considered as a variable affecting the science test scores at the student level. So, the level 1 and level 2 equations could be modeled as

$$\text{Level 1: } y_{ij} = B_0 + B_1 * \text{Gender} + r$$

$$\text{Level 2: } B_0 = \gamma_{00} + u_0$$

$$B_1 = \gamma_{10} + u_{01}$$

Table 3 shows the results from the Random-Coefficients Regression Model in HLM.

**Table 3***Random-Coefficients Regression Model in HLM*

Fixed Effect	Coefficient	Std. Error	T-ratio	D.f.	P-value
Mean Science test scores $\gamma_{00}$	7.702	0.084	92.214	80	0.000*
The average gender science regression slope across school districts $\gamma_{10}$	0.261	0.092	2.842	80	0.006*
Random Effect	Std. Deviation	Variance Component	Chi-square	D.f.	P-value
$\tau_{00} = \text{var}(u_0)$	0.325	0.106	115.537	80	0.006*
Gender effect, $\tau_{11} = \text{var}(u_{01})$	0.093	0.009	69.804	80	>0.500
$\sigma^2 = \text{var}(r_{ij})$	4.666	21.773			

The overall mean science achievement across schools was significant from zero ( $\gamma_{00}=7.702$ ,  $p<0.05$ ). Also, a significant difference was observed in gender slope (i.e., the effect of gender on science scores) across schools ( $\gamma_{10}=0.261$ ,  $p<0.05$ ). For each unit increase in student gender, an average increase of 0.261 points occurs in student science scores across schools.

After including gender as a predictor of science achievement within schools, between school variability was reduced by 0.001 [(21.788-21.773)/21.788=0.001] relative to the one-way random effects ANOVA model. A statistically significant difference was observed in the remaining variance in school means ( $\tau_{00}=0.106$ ,  $p<0.05$ ). This suggests that highly significant differences exist among means from the 81 school districts, which is quite similar to the result from the one way ANOVA with random effects model. This between school variance might be explained after incorporating school level (i.e., level 2) variables. However, since  $\tau_{11}$  was not found to be statistically different from zero, the between school variance related to the effect of gender seemed to be adequately explained ( $\tau_{11}=0.009$ ,  $p>0.500$ ). The relationship between gender and science achievement within schools did not vary significantly across the population of school districts. Additional level 2 (i.e., school-level) predictors were added in an effort to explain between school variance in the following models. Then, Table 4 shows the result of these analyses.

$$\text{Level 1: } y_{ij} = B_0 + B_1 * \text{Gender} + r$$

$$\text{Level 2: } B_0 = y_{00} + y_{01} * (\text{SES}) + u_0$$

$$B_1 = y_{10} + y_{11} * (\text{SES}) + u_{01}$$

**Table 4***Result of an Intercept and Slopes as Outcomes Model in HLM*

Fixed Effect	Coefficient	Std. Error	T-ratio	D.f.	P-value
Mean science test scores $\gamma_{00}$	7.667	0.087029	88.092	79	0.000*
The main effect of SES $\gamma_{01}$	0.0002	0.000059	2.478	79	0.016*
The average gender science regression slope across school districts $\gamma_{10}$	0.317	0.091510	3.467	79	0.001*
The cross level interaction involving SES with student gender $\gamma_{11}$	-0.0002	0.000062	-1.839	79	0.069
Random Effect	Std.Deviation	Variance Component	Chi-square	D.f.	P-value
$\tau_{00} = \text{var}(u_0)$	0.34101	0.11629	107.77740	79	0.017
Gender effect, $\tau_{11} = \text{var}(u_{01})$	0.18620	0.035	67.68107	79	>0.500
$\sigma^2 = \text{var}(r_{ij})$	4.66546	21.767			

Table 4 shows the results of the contextual model with gender in level 1 and SES in level 2. By including SES as a predictor in level 2, 0.001 of the variance [(21.788-21.767)/21.788=0.001] in the between school difference in mean science scores was accounted for by SES. Since  $\tau_{00}=0.116$ ,  $p<0.05$ , considerable differences were still observed between schools. These differences might be explained by other level 2 variables. Because  $\tau_{11}=0.035$ ,  $p>0.05$ , no significant variance remained in the effect of gender within schools once the adjustment for SES in the school was introduced.

Overall, the mean science achievement across schools was still significantly different from zero ( $\gamma_{00}=7.667$ ,  $p<0.05$ ). Also, a significant effect of SES on mean school science achievement was observed ( $\gamma_{01}=0.0002$ ,  $p<0.05$ ). In other words, students from the school districts where income is high scored on average 0.0002 units higher on the science tests.

The effect of gender on science achievement in schools with average percentage of SES was statistically different from zero ( $\gamma_{10}=0.317$ ,  $p<0.05$ ). The female students' science test scores are higher than the male students' test scores. Further, no significant effect of SES on the gender slope was observed ( $\gamma_{11}=-0.0002$ ,  $p>0.05$ ). Additionally, a 0.0002 unit decrease was observed in the science test scores of female students from the high income area.

### Conclusions and Recommendations

In this study, the science test success of the students who took the OKS (Middle School Organization Student Selection and Placement Exam) -2003 science test were analyzed using analysis methods and HLM applied to the structure of the nested data. According to the random influence ANOVA model findings, a significant difference was found in the science test scores of the students who attended the examination from different school areas. Additionally, 0.996 of the variance in the test scores came from the variance within the students. Therefore, the gender variable from the student characteristics was added to the model, and the success on the science test was reanalyzed. According to the Random Coefficient Regression Model, the effect of gender on the science scores was significant. However, the between school district variance and the effect of gender seemed to be adequately explained because the relationship between gender and science achievement within school districts does not vary significantly across the population of school districts. By adding the SES variable for each school region to the model, the change in the science scores was analyzed. The science scores were affected by the SES variable for the region where the school is found, and the science scores are also affected by the gender of the students from different school regions. However, no significant effect was observed from both the gender and SES variables together in the science test success.

According to Park (2005), the effects of student engagement are consistent regardless of minority and gender. Among classroom level variables, such as teachers' degree, experience, certification, authentic instruction, content coverage, and class size, no significant predictor of student math achievement growth has been identified. The findings suggest that student engagement and educational policy for student success should be emphasized in a school.

Acar (2005) indicated that a relationship of medium level significance was found between the OKS science test scores and the social studies test scores of 2001-2002 and 2003. Additionally, when the results from Park (2005) are considered, analyzing the variables belonging to the student (e.g., academic past) and variables belonging to the environment in which the student resides (e.g., experience of the instructor, study time at home, number of students in class, and school size) at a micro and macro level may render the research results more reliable in analyses concerning student success in later studies. Novy and Francis (1989) suggested that group research for statistical methods are better suited for the study of group processes than traditional analyses of variance and multiple regression.

**References**

- Acar, T. (2005). OKÖSYS Sosyal Bilimler Test Başarı Puanlarının Diğer Alt Test Başarı Puanları ve Cinsiyet Değişkeni İle Karşılaştırılması. *Eğitim Araştırmaları-Eurasian Journal of educational Research*,21.
- Bryke, A. S. & Raudenbush, S.W. (1992). *Hierarchical linear models*. Thousand Oaks, CA: Sage.
- Franks, M.E. and others (1996, April). *An analysis of NEAP trial state assessment data concerning the effects of computers on Mathematics achievement*. Paper presented at the annual meeting of the American Educational Research Association, New York.
- Koopmans, M. (1998, April). *Application of HLM to the evaluation of the effects of basic skills programs on Math achievement*. Paper presented at the annual meeting of the American Educational Research Association, San Diego (ERIC Document Reproduction Service No. ED 419 843).
- Liu, X. (2004, October). *Applying HLM to estimate reading achievement*. Paper presented at the 35<sup>th</sup> annual Conference of the Northeastern Educational Research Association, New York
- Novy, D.M., & Francis, D.J. (1989, August). *An application of hierarchical linear modeling to group research*. Paper presented at the 1989 annual meeting of the American Psychological Association, New Orleans
- Opdenakker, M.& Van Damme, J. (1998, April). *The importances of indentifying levels in multilevel analysis*. Paper presented at the annual meeting of the American Educational Research Association, San Diago. (ERIC Document Reproduction Service No. ED 422 400).
- Osborne, J.W. (2000). Advantages of hierarchical linear modeling. *Practical Assessment, Research, and Evaluation*, 7(1). Retrieved 26 November 2007 from <http://www4.ncsu.edu/~jwosbor2/otherfiles/MyResearch/PARE2000-HLM.pdf>
- Park, S. (2005). Student engagement and classroom variables in improving mathematics achievement. *Asia Pacific Education Review*. Vol. 6, No. 1, 87-97.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical Linear Models: Applications and Data Analysis Methods*. Sage Publications.
- Subedi, B.R. (2005) *Demonstration of the three-level hierarchical generalized linear model applied to educational research*. Unpublished doctoral dissertation, The Florida State University (UMI No. 3183114).
- Tamada, M. (2002, June). *Predictors of graduation rates: Why they can be expected to have greater predictive value at the national level than at the intuitional research*. Paper presented at the annual forum of the Association for intuitional Research, Toronto.(ERIC Document Reproduction Service No. ED 472 474).

- Wang, J. (2000, April). *Relevance of the hierarchical linear model to TIMSS data analysis*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans. (ERIC Document Reproduction Service No. ED 441 432).
- Webster, W. J. and others (1996, April). *The applicability of selected regression and hierarchical linear models to the estimation of school and teacher effects*. Paper presented at the annual meeting of the National Council on Measurement in Education, New York. (ERIC Document Reproduction Service No. ED 400 320).
- Williams, N. J. (2003). *Item and Person Parameter Estimation using Hierarchical Generalized Linear Models and Polytomous Item Response Theory Models*, Doctor of Philosophy: Unpublished doctoral dissertation, The University of Texas at Austin. (UMI No. 3116234).
- Willms, J.D. (1999). *Basic Concepts in Hierarchical Linear Modeling with Applications for Policy Analysis*. In G. Cizek (Ed.), *Handbook of educational policy*. San Diego, CA: Academic Press. Retrieved 10 February 2008 from <http://www.unb.ca/crisp/pdf/9806land.pdf>
- Zhang, Y.&Zhang, L. (2002, April). *Modeling school and district effect in the Math achievement of delaware students measured by DSTP: A preliminary application of hierarchical linear modeling in accountability study*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans. (ERIC Document Reproduction Service No. ED 468 962).

## Aşamalı Doğrusal Modellemede Bir Uygulama: OKS-2006 Fen Testi Başarısı

### (Özet)

*Problem Durumu:* Son yıllarda iç içe geçmiş veri yapısı sergileyen verilerde aşamalı doğrusal modelleme (ADM) sıkça kullanılmaktadır. Veriler iç içe geçmiş veri yapıları sergiledikleri zaman, klasik doğrusal modellere ilişkin başlıca varsayımların (veri grubundaki gözlemlerin, veri grubundaki diğer gözlemlerle olan bağımsızlığı) ihlal edildiği bir yapıya sahip olurlar. Örneğin, eğitimde sıkça öğrencilerin çeşitli alanlardaki başarı puanları incelenir ve eğitim sisteminde öğrenciler sınıflardan (eğitim aldıkları ortamlardan), sınıflarda içinde buldukları okullardan bağımsız olarak düşünülemez. Öğrenciler, aynı sınıfın içinde ortak bir öğretmeni, ortak bir öğretme stilini ve ortak bir öğrenme deneyimlerini paylaşırlar. Bu ortak deneyimler nedeniyle, öğrenci başarı puanları, aynı sınıfın içindeki diğer öğrencilerin başarı puanlarıyla doğrudan ilişkilidir ve bağımsız olarak düşünülemez. Aşamalı ya da iç içe geçmiş verilere standart regresyon eşitlikleri uygulandığında da bazı problemlerle karşılaşılır. En temel

problem gözlemlerin bağımsızlığı sorunudur. Standart regresyon modellerinde değişkenlerin birbirinden bağımsız olma koşulu hiyerarşik verilerde bozulduğundan hiyerarşik yapılarda bulunan gözlemler, birbirlerine, tesadüfi yolla örneklenen gözlemlerden daha çok benzer olma eğilimindedirler. ADM'de değişkenler birkaç şekilde modellenebilir. Bu çalışmada ADM'de değişkenlerin 3 farklı şekilde modellenmesi açıklanmıştır.

*1-ADM'de Koşulsuz Modelleme Ya Da Tesadüfi Etkili ANOVA:* ADM'nin en basiti, kestiricileri olmayan "koşulsuz modelleme" yöntemidir. Araştırmacılar, sonuç değişkeninin kestirimiyle ilgilenir fakat öğrenci veya sınıf düzeyinde her hangi bir kestirici değişken modelde kullanılmaz. Bu haliyle bu teknik, tek yönlü varyans analizi modeline eşittir. Bu model genellikle, düzeylere ayrılmış sonuç değişkeni değerlerinde varyansın bölünüp bölünmediğini belirlemek için ADM'de birinci adım olarak kullanılır. Örneğin, birçok yerleşim yerinden sınava katılan öğrencilerin fen bilgisi test puanları sonuç değişkeni olarak tanımlandığında ADM'de en küçük düzey olan düzey 1(öğrenci düzeyi) şöyle tanımlanır:

$$y_{ij} = B_{0j} + r_{ij}$$

Denklemdaki  $y_{ij}$ , j. okul bölgesindeki i.öğrencinin fen bilgisi test başarısıdır.  $B_{0j}$ , j.okul bölgesi için fen bilgisi test puanlarının ortalaması ve  $r_{ij}$  ortalaması sıfır, varyansı  $\sigma^2$  olan bir normal dağılıma yaklaşan düzey 1 denkleminin hatası olarak düşünülür. 2. aşama olan düzey 2 (okul bölgesi modeli) denklemi,

$B_{0j} = y_{00} + u_{0j}$  olarak kurulur. Bu denklemde,  $B_{0j}$  j. okul için fen bilgisi test puanlarının ortalamasıdır.  $y_{00}$ , tüm verilerdeki gözlemlere ait fen bilgisi test puanlarının genel ortalaması ve  $u_{0j}$ , j.okul bölgesine ait ortalaması sıfır, varyansı  $\tau_{00}$  olarak değişen tesadüfi etkidir. Düzey 1 ve 2 model denklemleri birleştirildiğinde birleştirilmiş modelde şu şekilde oluşturulur:

$$y_{ij} = y_{00} + u_{0j} + r_{ij}$$

Sonuç değişkeni için toplam varyans,  $Var(y_{ij}) = Var(u_{0j} + r_{ij}) = \tau_{00} + \sigma^2$  olarak tanımlanır. Denklemdaki  $\sigma^2$  gruplar içi değişkenliği (öğrenciler arasındaki değişkenliği) ve  $\tau_{00}$  gruplar arası değişkenliği (okul bölgeleri arasındaki değişkenliği) temsil eder.



2- Düzey 1 Denklemine Kestiriciler Ekleme: Tesadüfî Katsayılı Regresyon Modeli ADM'de bu model, regresyon tekniğinin özel bir halini temsil eder. Koşullu modelleme koşulsuz modellemenin aksine, ilgili kestiriciler (örneğin öğrencilerin cinsiyeti) düzey 1 denklemine eklenir. Şöyle ki,

$$\text{Düzey 1 denklemi: } y_{ij} = B_{0j} + B_{1j}X_{ij1} + r_{ij}$$

$y_{ij}$  sonuç değişkenidir (fen bilgisi test puanları),  $B_{0j}$  j. okul bölgesi için beklenen fen bilgisi test puanları,  $X_1$  is kestirici değişken (öğrencilerin cinsiyeti değişkeni),  $B_{1j}$  cinsiyet değişkeni ile ilgili fen bilgisi test puanlarında beklenen değişim ve  $r_{ij}$  hata terimi. ADM'de Düzey 2 denklemi, düzey 1 denkleminin parametreleri düzey 2 denkleminin sonuç değişkeni olarak ele alınır. Düzey 2 denklemi,

$$B_{0j} = y_{00} + u_{0j}$$

$$B_{1j} = y_{10} + u_{1j} \text{ olarak modellenir.}$$

ADM'de düzey 2 denkleminde  $B_{0j}$  ve  $B_{1j}$  düzey 1 denkleminde kestirilen kesim noktası değerleri bir sonuç değişkeni olarak modellenir.

$y_{00}$  fen bilgisi test puanlarının genel ortalaması,  $y_{10}$  cinsiyetler arasındaki ortalama regresyon eğim değeri,  $u_{0j}$  ve  $u_{1j}$  düzey 2 denkleminin tesadüfi etkileri olarak modellenir. Bu modelde kestirici değişken düzey 1 modeline eklenir fakat düzey 2 modeli için herhangi bir kestirici değişken eklenmemiştir. Düzey-2 modeline de kestirici değişken eklendiğinde kurulan model, tesadüfi etkili regresyon modelinden bir anlamda farklılaşır.

3- Düzey 1 ve 2 Denkleminde Kestiriciler Ekleme: Sabit ve Eğitim Parametrelerinin Çıktı Olduğu Modeller: ADM'de öğrenci düzeyindeki modele (düzey 1 modeline), sonuç değişkenini etkilediği düşünülen kestirici değişkenler eklenebildiği gibi öğrencilerin dahil olduğu gruplara ilişkin kestirici değişkenlerde eklenebilir. ADM'de oluşturulan düzey 2 denklemindeki kestiriciler alt gruplar arasındaki değişkenliği açıklamaya yardımcı olur. Düzey 1 denklemi, "tesadüfi katsayılı regresyon modelinin düzey 1 denklemi" ile aynı olurken düzey 2 denklemi şu şekildedir:

$$B_{0j} = y_{00} + y_{01}W_{1j} + u_{0j}$$

$$B_{1j} = y_{10} + y_{11}W_{1j} + u_{1j}$$

$B_{0j}$  ve  $B_{1j}$  düzey 1 denkleminde kestirilen kesim noktası değerleridir.

Dikkat edilirse düzey 1 denkleminin kestirici değişkenleri, düzey 2 denkleminde sonuç değişkeni olarak kullanılır.

$B_{0j}$  j. okul bölgesinin kesim noktası,  $B_{1j}$  j. okuldaki cinsiyet değişkeni için beta katsayısı,  $y_{00}$  düzey 2 denklemindeki okul bölgeleri arasında değişen ortalama kesim noktası,  $y_{10}$  okul bölgeleri arasında değişen ortalama regresyon eğim noktası,  $u_{0j}$  ve  $u_{1j}$  düzey 2 denkleminin tesadüfi etkileridir.  $W_{1j}$  j. okul bölgesindeki düzey 2 denkleminin kestirici değişkenin (örneğin okul bölgelerinin gelir düzeyleri) göstergesidir.

*Araştırmanın Yöntemi:* Araştırma verileri 10727 öğrenciden elde edilmiştir. Araştırmanın değişkenleri öğrencilerin OKS-2006 Fen bilgisi alt testine vermiş oldukları yanıtlar, öğrencilerin cinsiyeti, öğrenim gördükleri okulun bulunduğu yerleşim yeri ve bu yerleşim yerine ait kişi başına düşen gayri safi yurt içi hasıla(YTL)'dir.

*Araştırmanın Sonuçları ve Öneriler:* Bu çalışmada iç içe geçmiş veri yapılarına uygulanan analiz yöntemlerinden ADM ile OKS-2003 Fen bilgisi testini cevaplayan öğrencilerin fen bilgisi test başarıları analiz edilmiştir. ADM' de kurulan tesadüfi etkili ANOVA modelinin bulgularına göre farklı okul bölgelerinden sınava katılan öğrencilerin fen bilgisi test puanlarında anlamlı bir fark bulunmuştur. Bunun yanı sıra, test puanlarındaki değişkenliğin 0.996'sının öğrenciler içindeki değişkenlikten kaynakladığı görülmüştür. Bunun üzerine modele öğrenci özelliklerinden cinsiyet değişkeni eklenmiş ve fen bilgisi başarıları tekrar incelenmiştir. ADM' de tesadüfi katsayılı regresyon modeline göre öğrencilerin fen bilgisi test puanları üzerinde cinsiyetin etkisinin anlamlı olduğu bulunmuştur. Ancak, ADM' de okul düzeyinde kurulan modele, okul bölgelerine ilişkin sosyo-ekonomik düzey bilgisi eklenerek öğrencilerin fen bilgisi testi başarılarındaki değişim tekrar incelenmiştir. Fen bilgisi test puanlarının okulun bulunduğu yerleşim yerinin sosyo-ekonomik durumundan etkilendiği ve aynı zamanda farklı okul bölgelerinden gelen öğrencilerin cinsiyet değişkeninden fen bilgisi puanlarının etkilendiği görülmüştür. Ancak, öğrencilerin fen bilgisi test başarılarının hem cinsiyetinden hem de öğrenim gördükleri okullarının bulunduğu yerleşim yerinin sosyo-ekonomik durumundan etkilenmediği, fen bilgisi puanları üzerinde öğrencilerin cinsiyetlerinin ve öğrenim gördükleri okulların bulunduğu yerleşim yerinin sosyo-ekonomik durumunun anlamlı bir etkisinin olmadığı görülmüştür. Öğrenci başarısına ilişkin incelemelerde, öğrenciye ait değişkenler (akademik geçmişi) ve öğrencinin içinde bulunduğu çevreye ait değişkenler (öğretmenin tecrübesi, evde çalışma süresi, sınıftaki öğrenci sayısı, okulun büyüklüğü, okulun türü...v.b.) olmak üzere çoklu düzeyde incelenmesi, geleneksel istatistiksel yöntemlerin sonuçlarına göre araştırma sonuçlarının karşılaştırmalarının yapılması önerilmektedir.

*Anahtar Sözcükler:* Aşamalı doğrusal modelleme, çok düzeyli istatistikler, fen bilgisi başarıları

## Reliability and Validity of the Trichotomous Achievement Goal Model in an Elementary School Physical Education Setting

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### Abstract

*Problem Statement:* The trichotomous model has been applied widely in academic and university settings but little is known about its utilization in physical education settings; therefore, it seems reasonable to study the efficacy of the trichotomous achievement goal model in elementary school physical education settings.

*Purpose of Study:* The purpose of this study is to examine whether the trichotomous achievement goal model utilized with high school and university undergraduate students might also be applied to elementary students in physical education settings.

*Methods:* Participants included 158 students (68 boys and 90 girls) in grades 3-6 enrolled in a rural school district located in south-central Texas. Participants came from a public elementary school within the district. Their ages ranged from 8-12 years. Students' mastery, performance-approach, and performance-avoidance goals were assessed using a 15-item questionnaire. The factorial validity of the models and internal consistency reliability were tested with confirmatory factor analysis and tests of internal consistency. Data were analyzed by AMOS 5.0 and SPSS 11.5.

*Findings and Results:* After some modifications, the results indicated that all indices ( $\chi^2/df = 1.09$ , CFI = .99, NNFI = .98, and RMSEA = .02) represented an excellent fit between the three-factor model and the data, with factor loadings ranging from .40 to .84. Cronbach's alphas for the three scales were .74, .85, and .71, respectively, indicating acceptable internal

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consistency. Reliability and validity analyses confirmed the existence of the three-factor achievement goal model in elementary school physical education, which is consistent with findings reported in the academic and university settings and other physical education settings. Results of this study revealed that the trichotomous achievement goal model fit the data well and demonstrated satisfactory psychometric properties.

*Conclusions and Recommendations:* Given that reliability and validity analyses produced valid scores, the trichotomous achievement goal model is applicable to elementary school physical education settings. Future researchers, however, might examine and assess other forms of reliability and validity in different educational settings and with students from more diverse backgrounds.

**Keywords:** Achievement goals, confirmatory factor analysis, elementary school, physical education

Achievement goals are defined as the purposes students perceive for engaging in achievement-related behaviors, and the meanings they ascribe to those behaviors (Ames, 1992; Dweck, 1986; Maehr, 1983; Nicholls, 1989). They are also defined as a cognitive-dynamic focus of competence-relevant behavior (Elliot, 1997). Elliot and McGregor (2001) claim that competence may be defined according to whether one has acquired understanding or mastered a task (an absolute standard), improved one's performance or fully developed one's knowledge or skills (an intrapersonal standard), and performed better than others (a normative standard). In other words, achievement goals are concerned with how individuals approach, experience, and perform in achievement settings as well as with the reasons people want to achieve what they achieve.

Over the past two decades, achievement goals and their cognitive, affective, motivational, and behavioral correlates among students have been examined extensively in a variety of achievement settings, including classrooms and physical education classes (Ames, 1992; Anderman & Maehr, 1994; Eren, 2009; Kaplan & Maehr, 1999; Solmon, 1996; Xiang & Lee, 2002). Achievement goal research in the domain of sports and physical education has primarily focused on two major goals (i.e., the dichotomous model): mastery and performance (Ames 1992; Ames & Archers, 1987, 1988). These two goals have been alternatively labeled task orientation and ego orientation (e.g., Maehr & Nicholls, 1980; Nicholls, 1989), learning goals and performance goals (e.g., Dweck, 1986; Elliot & Dweck, 1988), and mastery goals and ability goals (e.g., Ames, 1984; Butler, 1992).

Mastery goals focus on learning, improving, and mastering skills, whereas performance goals concentrate on social comparison and the demonstration of competence relative to others. In performance goals, ability is judged by doing better than others or achieving success with little effort because success is based on social comparison. Research focusing on these two types of goals reveals two things. Mastery goals are associated with adaptive motivational patterns such as showing

intrinsic interest in learning, displaying positive attitudes toward school, and believing that success is caused by effort. Performance goals are associated with less adaptive motivational patterns such as avoidance of challenging tasks and attributing success to ability. For a more in-depth review, see Chen (2001).

Previous research has also indicated that the achievement goal model has been adapted and used successfully for elementary physical education, yielding reliable and valid data (Xiang & Lee, 1998; Xiang, Lee, & Solmon, 1997). For example, guided by both achievement goal theory and expectancy value theory, Xiang and associates examined the relationships among achievement goal orientations, expectancy beliefs, task values, and elementary school children's motivation in physical education as a general subject area (Xiang McBride, & Guan, 2004) and in running as a specific activity (Xiang McBride, & Bruene, 2004). These research results suggest that achievement goal research might profitably be extended downward to at least age 9.

Recently, Elliot and his colleagues (Elliot, 1997; Elliot, 1999; Elliot & Church, 1997; Elliot & Harackiewicz, 1996) have proposed a trichotomous, approach-avoidance achievement goal model because a number of studies employing the dichotomous model revealed some mixed findings regarding performance goals and student motivational outcomes. Some researchers (e.g., Ames, 1992; Butler, 1992; Elliot & Church, 1997; Elliot & Dweck, 1988) found that performance goals elicit negative or maladaptive processes and outcomes, whereas other researchers (e.g., Elliot & Harackiewicz, 1996) indicated that performance goals generate adaptive achievement behavior (e.g., striving to do better than others). For example, Ames (1992) reported that performance goals were related to maladaptive motivational patterns such as low persistence in the face of difficulty and the use of less effective or superficial learning strategies. However, Harackiewicz, Barron, Carter, Lehto, and Elliot (1997) found that performance goals were positively associated with academic performance among college students. Given that performance goals are not able to fully account for the mixed pattern of results from these studies, further differentiation among performance goals may be essential (Guan, McBride, & Xiang, 2007).

Elliot and his colleagues (e.g., Elliot, 1999; Elliot & Church, 1997; Elliot & Harackiewicz, 1996) developed a three-factor model that includes the approach and avoidance motivation theory mentioned earlier. In their trichotomous model, the construct of mastery goals remains the same as in the dichotomous model. The construct of performance goals, however, is divided into approach and avoidance goals. Performance-approach goals are defined as focusing on the attainment of favorable judgments of competence, while performance-avoidance goals focus on avoiding unfavorable judgments of competence (Church, Elliot, & Gable, 2001). The approach-avoidance distinction is a critical element to understanding the relationship between achievement goals and related cognitive, affective, and behavioral responses. Harackiewicz, Barron, Pintrich, Elliot, and Thrash (2002) stated, "At a logical level, this distinction is a key premise of the multiple goal perspective, and accepting this distinction implies the need to revise goal theory to include both types of performance goals" (p.639). Because of the division of the

performance goal construct, the trichotomous model is assumed to clarify the role performance goals play in student motivational patterns.

Within the trichotomous model, Elliot and Church (1997) developed an 18-item questionnaire to assess mastery goals (e.g., "I want to learn as much as possible from my university classes"), performance-approach goals (e.g., "It is important for me to do better than other students in my university classes"), and performance-avoidance goals (e.g., "I wish my university classes were not graded"). The questionnaire uses a 7-point Likert scale ranging from 1 (not at all true of me) to 7 (very true of me). The results from a principle components factor analysis indicated that three separate goal orientations were distinguishable in an academic setting. Elliot and Church (1997) also reported that reliability coefficients (Cronbach's alphas) for the mastery, performance-approach, and performance-avoidance subscales were .89, .91, and .77, respectively. Later, Elliot (1999) revised the 18-item questionnaire by replacing a performance-avoidance goal item ("I wish my university classes were not graded") with a new item ("My goal for this class is to avoid performing poorly.") When compared to the initial questionnaire, the revised questionnaire demonstrated greater face value and more satisfactory psychometrics of the measures. Analysis of test validity and internal consistency provides strong support for this modified trichotomous model.

To date, the three-factor trichotomous achievement goal model has been widely used in the academic domain. Research based on participants from the United States (e.g., Elliot, 1999; Elliot & Church, 1997; Midgley et al., 1998), England (Smith, Duda, Allen, & Hall, 2002), Israel (Levy, Kaplan, & Patrick, 2004), and Turkey (Ağbuğa & Xiang, 2008; Akın & Çetin, 2007; Eren, 2009) all support the three-factor model in academic and university settings. However, there is limited research in the domain of sport and physical education, mostly done with French students (Cury, 2000; Cury, Da Fonseca, Rufo, Peres, & Sarrazin, 2003; Cury, Elliot, Sarrazin, Da Fonseca, & Rufo, 2002). Cury (1999), for example, developed an approach and avoidance achievement goal instrument adapted from Elliot (1997) and Elliot and Church (1997). The instrument consists of 15 questionnaire items with responses on a 5-point Likert scale ranging from 1 (Don't agree at all) to 5 (Completely agree); it has been reported as valid and reliable in sport and physical education settings. Recently, Guan et al. (2007) adapted achievement goal instruments from Elliot (1997), Elliot and Church (1997), and Elliot and McGregor (2001) to examine whether the trichotomous and 2\*2 achievement goal models were appropriate in high school physical education settings. Their results showed that the trichotomous achievement goal model provided a poor fit to the data (CFI = .84, GFI = .82, NNFI = .81, and RMSEA = .09), although Cronbach's alpha coefficients indicated acceptable reliability.

None of these studies explore the efficacy of the trichotomous achievement goal model in elementary school physical education settings. It seems reasonable to do so. This study, therefore, was designed to study whether the trichotomous achievement goal model utilized with high school and university undergraduate students might also be applied to elementary school students in physical education settings. Particularly, the factorial validity and internal consistency reliability of the Elliot

(1999) three-factor of achievement goals were tested to determine if this model is a good fit to a sample of students in elementary physical education classes.

## Method

### *Participants*

Participants included 158 students (68 boys and 90 girls) in grades 3-6 enrolled in a rural school district located in south-central Texas. Participants came from a public elementary school within the district. Ages ranged from 8-12 years. Racial and ethnic distribution for participants consisted of 76.6% African-American, 17.1% Hispanic-American, 5.1% Caucasian, and 1.3% not reported. The student population of the school district consisted of children from families of lower to middle socio-economic status. Approximately 90% of the students in the school were eligible for free or reduced lunch. Participation in the study was voluntary and permission from the institution, parents, and children was obtained.

### *Instrumentation*

Students completed 15 items adapted from Elliot and Church (1997). These items were prefaced with the heading, "In my physical education classes..." They reflected three achievement goals: mastery, performance-approach, and performance-avoidance. Students rated each item on a 5-point Likert scale ranging from 1 (Not at all true) through 5 (Very true). Examples of the five items assessing mastery goals are, "I try to learn as much as possible," and "I learn something that is fun to do." Examples of the five items assessing performance-approach goals are, "I can do better than my friends," and "Others cannot do as well as me." The five items assessing performance-avoidance goals included, "I do not look like that I cannot do activities," and "Other children do not think that I am bad in activities."

Several steps were taken to preserve the validity and reliability of these measures with elementary school children. First, a panel of three professional pedagogues in an American university evaluated all questionnaire items to make sure that elementary children understand the items. Pedagogues found no inconsistencies. Second, students were all pilot-tested for reading level and response scale prior to data collection with a sample of 50 nonparticipating students from grades in their physical education classes. Students raised no questions while completing the questionnaires. Third, a confirmatory factor analysis (CFA) was conducted on items measuring students' achievement goals to test for the three distinct types of achievement goals (mastery, performance-approach, and performance-avoidance) proposed by the trichotomous model.

### *Procedures*

After obtaining institutional and school district approval and informed consent from the participants, all data were collected during the spring semester of 2006. The questionnaire was administered by the researcher to students during regularly

scheduled physical education classes. Each item was read aloud to the students. They were encouraged to answer as truthfully as they could and to ask questions if they had difficulty understanding instructions or items in the questionnaire. They were also informed that their teachers would not have access to their responses. To ensure the independence of their responses, the researcher had students spread out so that they could not see one another's responses. The questionnaire took approximately 30 minutes to administer.

### **Data Analysis**

Using Analysis of Moment Structures (AMOS) Version 5.0 (AMOS 5.0; Arbuckle, 2003), confirmatory factor analysis (CFA) was conducted on items measuring achievement goals to examine factorial validity. CFA is a statistical technique used to verify the factor structure of a set of observed variables. CFA allows the researcher to test the hypothesis that a relationship between observed variables and their underlying latent constructs exists. When using CFA, the chi-square statistics assess the absolute fit of the model, but it is sensitive to sample size. As a result, a variety of fit indexes is suggested to evaluate the fit of the specified model(s) (Jöreskog & Sörbom, 1993). They include comparative fit index (CFI), Bentler and Bonnett's non-normed fit index (NNFI), root mean square error of approximation (RMSEA), and ratio of chi-square to degrees of freedom. CFI and NNFI exceeding .90 are generally considered to indicate a good fit; scores exceeding .95 are considered to indicate an excellent fit (Hatcher, 1994; Hu & Bentler, 1995). Additionally, a RMSEA of less than .10 is considered indicative of an adequate fit; less than .05 is considered to an excellent fit (Browne & Gudeck, 1993). Finally, the chi-square to degrees of freedom ratio should be less than 3.0 for an adequate fit (McIver & Carmines, 1981).

Cronbach's alpha coefficients were calculated to examine internal consistency of test scores for each of the three achievement goal subscales. Many statisticians (e.g., Cronbach, 1951; DeVellis, 1991; Kline, 1998; Nunnally & Bernstein, 1994) agree that internal consistency reliability is acceptable if a Cronbach alpha value is greater than .70. This guideline for the acceptable alpha value is employed in this study.

## **Results**

The results of descriptive statistics are presented in Table 1. The mean scores of the mastery, performance-approach and performance-avoidance goals were all above the midpoint (i.e., 3) of the scales, suggesting that students in this study endorsed all three achievement goals.



**Table 1**  
*Descriptive Data for Achievement Goals*

	<i>M</i>	<i>SD</i>	Range
Achievement Goals			
1. Mastery Goals	4.20	.78	1.00-5.00
2. Performance-Approach	3.05	1.15	1.00-5.00
3. Performance-Avoidance	3.40	.97	1.00-5.00

A confirmatory factor analysis (CFA) was conducted to test for the three distinct types of achievement goals (mastery, performance-approach, and performance-avoidance) proposed by the trichotomous model. The results indicated that all indices ( $\chi^2/df = 1.57$ , CFI = .92, NNFI = .90, and RMSEA = .06) represented an acceptable fit between the three-factor model and the data (see Table 2). However, for the fit to be excellent, the RMSEA should be less than .05 and CFI and NNFI should be higher than .95. To improve the model fit, two steps were taken. First, an examination of the factor loadings revealed that the item, "I do not look like that I cannot do activities," loaded weakly on the performance-avoidance goal with a factor loading of .36. Factor loadings, however, should be equal or larger than .40 (Clark & Watson, 1995). Therefore, this item was removed.

Second, modification indices were examined. The examination of modification indices provides a guide for path additions to the model (Kline, 1998). If a modification index between two items is high in relation to other modification indices, then the addition of a path will improve the overall fit of the model. Based on the modification indices provided by AMOS, a path of covariance was added between error terms for the items, "Others cannot do as well as me" and "I am the only one who can do the play or activity." Both items measure the performance-approach goal and are characterized by social comparison. Another path of covariance was added between error terms for the items, "I try to learn as much as possible" and "I learn something that is fun to do." The two items reflect an emphasis on learning, which is the essence of the mastery goal. After these modifications, the final model revealed an excellent fit ( $\chi^2/df = 1.09$ , CFI = .99, NNFI = .98, and RMSEA = .02) with factor loadings ranging from .40 to .84 (see Table 2). Scales of mastery, performance-approach, and performance-avoidance goals were then constructed by averaging the items on the scales. Cronbach's alphas for the three scales were .74, .85, and .71, respectively, indicating acceptable internal consistency.

**Table 2***Fit Indices of the Trichotomous Achievement Goal Model (N = 158)*

Indexes	Trichotomous Model	
	Initial CFA	Final Revised CFA
$\chi^2/df$	1.57	1.09
CFI	.92	.99
NNFI	.90	.98
RMSEA	.06	.02

### Conclusions and Recommendations

In this study, the trichotomous achievement goal model was tested to determine whether the model might represent a good fit to elementary school physical education settings. Cronbach alpha coefficients and confirmatory factor analysis were used to assess internal consistency reliability and factorial validity of the scores produced by the three-factor achievement goal model.

Although the trichotomous achievement goal model has been widely used in academic contexts (Akın & Çetin, 2007; Elliot, 1999; Elliot & Church, 1997; Eren, 2009; Midgley et al., 1998; Smith, Duda, Allen, & Hall, 2002; Levy, Kaplan, & Patrick, 2004) and all research supports the three-factor model in academic and university settings, there are only a few studies in the sport and physical education setting. Cury (1999), for example, provided evidence for the validity and reliability of the scores from the instrument in sport and PE settings using French high school students (Cury 1999; Cury, 2000; Cury et al., 2003; Cury et al., 2002).

Results of this study revealed that the trichotomous achievement goal model fit the data well and demonstrated satisfactory psychometric properties. Remembering that factor loadings should be equal or larger than .40 (Clark & Watson, 1995; Raubenheimer, 2004), results of the current study indicated that all factor loadings (ranging from .40 to .84) were acceptable.

Cronbach's alpha coefficients were used to examine the internal consistency of test scores produced by the achievement goal model. The results showed that the internal consistency was acceptable, with alpha coefficients of .74, .85, and .71 for the mastery, performance-approach, and performance-avoidance goals, respectively. Many statisticians (e.g., Cronbach, 1951; DeVellis, 1991; Kline, 1998; Nunnally & Bernstein, 1994) conclude that the internal consistency is acceptable if a Cronbach

alpha value is greater than .70. Cronbach's alpha coefficients for the three achievement goals exceeded the minimum recommended value of .70, which indicates that the scores produced by the trichotomous achievement goal model had acceptable internal consistency in this population of elementary school students. Furthermore, all the fit indexes ( $\chi^2/df$ , CFI, NNFI, and RMSEA) in the model, after some modifications, were in the excellent range, suggesting that the trichotomous achievement goal model produced valid scores.

Consistent with the findings reported in academic and university settings (Elliot, 1999; Elliot & Church, 1997; Midgley et al., 1998) and physical education settings (Cury, 2000; Cury et al., 2003; Cury et al., 2002), reliability and validity analyses confirmed the existence of the three-factor achievement goal model in elementary school physical education. Results of this study revealed that the trichotomous achievement goal model fit the data well and demonstrated satisfactory psychometric properties. Given that reliability and validity analyses produced valid scores, the trichotomous achievement goal model is applicable to elementary school physical education settings. Future researchers, therefore, should integrate the distinction between approach and avoidance into an achievement goal framework when evaluating elementary students' achievement goal orientations in physical education settings.

The validation of the trichotomous achievement goal model makes an important contribution to physical education research because it offers a theoretically sound and methodologically valid and reliable test for assessing student achievement goals in elementary school physical education settings. Previous achievement goal research has mostly focused solely on academics. This study supports the appropriateness of using the instrument in elementary school physical education settings.

Overall, the reliability and validity of the scores produced by the trichotomous model were satisfactory with this sample of elementary school students in the context of physical education settings. Future researchers, however, might examine and assess other forms of reliability and validity in different educational settings and with students from more diverse backgrounds.

## References

- Agbuga, B., & Xiang, P. (2008). Achievement goals and their relations to self-reported persistence/effort in secondary physical education: A trichotomous achievement goal framework. *Journal of Teaching in Physical Education, 27*, 179-191.
- Akın, A., & Çetin, B. (2007, Winter). Achievement Goal Orientations Scale: The Study of Validity and Reliability. *Euroasian Journal of Educational Research, 26*, 1-12.
- Ames, C. (1984). Competitive, cooperative, and individualistic goal structures: A motivational analysis. In R. Ames & C. Ames (Eds.), *Research on motivation in education* (pp. 177-207). San Diego, CA: Academic Press.
- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology, 84*, 261-267.
- Ames, C., & Archer, J. (1987). Mother's belief about the role of ability and effort in school learning. *Journal of Educational Psychology, 79*, 409-414.
- Ames, C., & Archer, J. (1988). Achievement goals in the classroom, students' learning strategies and motivation processes. *Journal of Educational Psychology, 80*, 260-267.
- Anderman, E., & Maehr, M. (1994). Motivation and schooling in the middle grades. *Review of Educational Research, 64*, 287-310.
- Arbuckle, J. L. (2003). *Amos 5.0 update to the Amos user's guide*. Chicago, IL: SmallWaters
- Browne, M. W., & Gudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structure equation models* (pp.136-162). Newbury Park, CA: Sage.
- Butler, R. (1992). What young people want to know when: Effects of mastery and ability goals on interest in different kinds of social comparisons. *Journal of Personality and Social Psychology, 62*, 934-943.
- Chen, A. (2001). A theoretical conceptualization for motivation research in physical education: An integrated perspective. *Quest, 53*, 35-58.
- Church, M. A., Elliot, A. J., & Gable, A. L. (2001). Perceptions of classroom environment, achievement goals and achievement outcomes. *Journal of Educational Psychology, 93*, 43-54.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment, 7*, 309-319.
- Cronbach, L. (1951). Coefficient alpha and the internal structures of tests. *Psychometrika, 16*, 297-334.
- Cury, F. (1999). New directions for achievement goals theory in sport: Development and predictive validity of the AAASQ. *Journal of Sport and Exercise Psychology, 20*, S15.
- Cury, F. (2000). Predictive validity of the approach and avoidance achievement in sport model. *Journal of Sport and Exercise Psychology, 22*, S32.
- Cury, F., Da Fonseca, D., Rufo, M., Peres, C., & Sarrazin, P. (2003). The trichotomous model and investment in learning to prepare for a sport test: A mediational analysis. *British Journal of Educational Psychology, 73*, 529-543.

- Cury, F., Elliot, A., Sarrazin, P., Da Fonseca, D., & Rufo, M. (2002). The trichotomous achievement goal model and intrinsic motivation: A sequential mediational analysis. *Journal of Experimental Social Psychology, 38*, 473-481.
- DeVellis, R. F. (1991). *Scale development: Theory and application*. Newbury Park, CA: Sage.
- Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist, 41*, 1040-1048.
- Elliot, A. J. (1997). Integrating the "classic" and "contemporary" approaches to achievement motivation: A hierarchical model of approach and avoidance achievement motivation. In M. L. Maehs & P. R. Pintrich (Eds.), *Advances in motivation and achievement* (pp. 243-279). Greenwich, CT: JAI Press.
- Elliot, A. J. (1999). Approach and avoidance motivation and achievement goals. *Educational Psychologist, 34*, 169-189.
- Elliot, A. J. & Church, M. A. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology, 72*, 218-232.
- Elliot, A. J., & Harackiewicz, J. M. (1996). Approach and avoidance achievement goals and intrinsic motivation: A mediational analysis. *Journal of Personality and Social Psychology, 70*, 461-475.
- Elliot, A. J., & McGregor, H. A. (2001). A 2\*2 achievement goal model. *Journal of Personality and Social Psychology, 80*, 501-519.
- Elliot, E. S., & Dweck, C. S. (1988). Goals: An approach to motivation and achievement. *Journal of Personality and Social Psychology, 54*, 5-12.
- Eren, A. (2009). Examining the relationship between epistemic curiosity and achievement goals. *Egitim Arastirmalari-Eurasian Journal of Educational Research, 36*, 129-144.
- Guan, J., McBride, R., & Xiang, P. Reliability and validity evidence for achievement goal models in high school physical education settings. *Measurement in Physical Education and Exercise Science, 11*, 109-129.
- Harackiewicz, J. M., Barron, K. E., Carter, S. M., Lehto, A. T., & Elliot, A. J. (1997). Determinants and consequences of achievement goals in the college classrooms: Maintaining interest and making the grade. *Journal of Personality and Social Psychology, 73*, 1284-1295.
- Harackiewicz, J., Barron, K. E., Pintrich, P. R., Elliot, A. J., & Thrash, T. M. (2002). Revision of achievement goal theory: Necessary and illuminating. *Journal of Educational Psychology, 94*, 638-645.
- Hatcher, L. (1994). *A step-by-step approach to using the SAS system for factor analysis and structural equation modeling*. Cary, NC: SAS Institute Inc.
- Hu, L., & Bentler, P. M. (1995). Evaluating model fit. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 76-99). London: Sage.
- Jöreskog, K., & Sörbom, D. (1993). *LISREL 8: Structural equation modeling with the SIMPLIS command language*. Hillsdale, NJ: Erlbaum.
- Kaplan, A., & Maehr, M. L. (1999). Achievement goals and student well-being. *Contemporary Educational Psychology, 24*, 330-358.
- Kline, R. B. (1998). *Principles and practice of structural equation modeling*. New York: Guilford.

- Levy, I., Kaplan, A., & Patrick, H. (2004). Early adolescent's achievement goals, social status, and attitudes towards cooperation with peers. *Social Psychology of Education, 7*, 127-159.
- Maehr, M. L. (1983). On doing well in science: Why Johnny no longer excels; Sarah never did. In S. G. Paris, G. M. Olson, & H. W. Stevenson (Eds.), *Learning and motivation in classroom* (pp. 179-210). Hillsdale, NJ: Erlbaum.
- Maehr, M. L., & Nicholls, J. G. (1980). Culture and achievement motivation: A second look. In N. Warren (Ed.), *Studies in cross cultural psychology* (pp. 221-267). New York: Academic Press.
- McIver, J. P. & Carmines, E. G. (1981). Unidimensional scaling. *Quantitative Applications in Social Science, 24*, 96-107.
- Midgley, C., Kaplan, A., Middleton, M., Maehr, M. L., Urdan, T., Anderman, L. H., et al. (1998). The development and validation of scales assessing students' achievement goal orientations. *Contemporary Educational Psychology, 23*, 113-131.
- Nicholls, J. G. (1989). *The competitive ethos and democratic education*. Cambridge, MA: Harvard University Press.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw Hill.
- Raubenheimer, J. E. (2004). An item selection procedure to maximize scale reliability and validity. *South African Journal of Industrial Psychology, 30* (4), 59-64.
- Smith, M., Duda, J., Allen, J., & Hall, H. (2002). Contemporary measures of approach and avoidance goal orientations: Similarities and differences. *British Journal of Educational Psychology, 72*, 155-190.
- Solmon, M. A. (1996). Impact of motivational climate on students' behaviors and perceptions of a physical education setting. *Journal of Educational Psychology, 88*, 731-738.
- Xiang, P., & Lee, A. (1998). The development of self-perceptions of ability and achievement goals and their relations in physical education. *Research Quarterly for Exercise and Sport, 69*, 231-241.
- Xiang, P., & Lee, A. (2002). Achievement goals, perceived motivational climate, and students' self-reported mastery behaviors. *Research Quarterly for Exercise and Sport, 73*, 58-65.
- Xiang, P., Lee, A., & Solmon, M. A. (1997). Achievement goals and their correlates of American and Chinese students in physical education: a cross cultural analysis. *Journal of Cross Cultural Psychology, 28*, 645-660.
- Xiang, P., McBride, R. E., & Bruene, A. (2004). Fourth graders' motivation in an elementary physical education running program. *Elementary School Journal, 104*, 253-266.
- Xiang, P., McBride, R. E., & Guan, J. M. (2004). Children's motivation in elementary physical education: A longitudinal study. *Research Quarterly for Exercise and Sport, 75*, 71-80.

## Üçlü Başarı Hedefleri Modelinin İlköğretim Beden Eğitimi Derslerindeki Geçerlilik ve Güvenirliliği

### (Özet)

*Problem Durumu:* Başarı hedefleri, öğrencilerin başarı ile ilgili davranışları nasıl gördüklerini ve bu davranışların anlamının ne olduğunun açıklanması şeklinde tanımlanabilir. Başarı hedefleri teorisi (Achievement Goal Theory), öğrencilerin başarısını değerlendirmek için onun temel başarı hedeflerinin belirlenmesinin önemini vurgular. Diğer bir deyişle, bu teori kişilerin başarı durumlarına nasıl yaklaştıklarını, deneyimlerini ve performanslarını tespit ettiği gibi aynı zamanda bu kişilerin neden başarılı olmak istediklerinin sebeplerini arar. Geçmiş 20 yılda, özellikle okul ortamlarında öğrencilerin başarı hedefleri ve bu hedeflerin motivasyonel davranışları arasındaki ilişkileri oldukça geniş incelenmiştir. Bu araştırmalar özellikle iki temel hedef üzerinde odaklanmıştır (ikili başarı modeli): Görev yönelimli hedefler ve performans yönelimli hedefler. Görev yönelimli hedefler öğrenme, ilerleme ve becerilerde uzmanlaşma üzerinde odaklanırken, performans yönelimli hedefler daha çok sosyal karşılaştırma ve başkalarına karşı yeterliliğin gösterilmesi üzerinde odaklanmıştır. Yapılan araştırmalar görev yönelimli hedeflerin derse olan ilgi, dersi öğrenme ve okula karşı olumlu duygular besleme ile ilgili olduğunu, performans yönelimli hedeflerin ise daha çok başarının yeteneğe dayalı olduğu ve çok çalışmadan başarı elde etme amacıyla ilişkisini tespit etmiştir. Halbuki, yapılan araştırmalar bu ikili başarı modelinin öğrencilerin başarılarını ve buna bağlı davranışlarının yeterli olmadığını göstermiştir. Bunun üzerine, üçlü başarı hedef modeli bilim adamları tarafından ortaya atılmıştır. Bu model içinde var olan görev yaklaşımli hedefler ikili başarı modelinde olduğu gibi aynı kalırken, performans yönelimli hedefler iki kısma ayrılmıştır: (a) Performans yaklaşımli hedefler ve (b) performans uzaklaşımli hedefler. Performans yaklaşımli hedeflere sahip olan öğrenciler diğer öğrencilerden daha başarılı olma istekleri üzerinde dururken, performans uzaklaşımli hedeflere sahip olan öğrenciler ise yetersizlik hissi karşısında kaçınmaya odaklanmıştır. Bu yaklaşımli-uzaklaşımli ayırım, öğrencilerin başarı hedefleri ile onların bilişsel, motivasyonel ve davranışsal yanıtları arasındaki ilişkileri de daha detaylı ve daha doğru anlamak için son derece önemlidir. Bu bilindiği için son on yılda üçlü başarı modeli üzerinde birçok araştırma yapılmış ve yapılmaya devam etmektedir. Ancak bu araştırmaların çoğu üniversite öğrencileri ve teorik dersler üzerinde yoğunlaşmıştır. Bu yüzden bu modelin beden eğitimi ve spor derslerinde kullanımı hakkında daha çok bilgiye ihtiyaç vardır. Sonuçta, ilköğretim beden eğitimi derslerini kullanarak üçlü başarı hedefi modelinin geçerliliğini ve güvenirliliği üzerinde yapılacak bu araştırma bir ilk olacaktır.

*Çalışmanın Amacı:* Bu çalışmanın amacı, lise ve üniversite düzeylerinde kullanılan üçlü başarı hedefi modelinin geçerlilik ve güvenilirliğini tespit ederek ilköğretim seviyesinde de kullanılıp kullanılmayacağını incelemektir.

*Yöntem:* Bu çalışmaya katılanlar, güney-merkez Teksas, ABD’de yaşayan bir ilköğretim okulunun 3., 4., 5., ve 6. sınıflarda okuyan 158 (68 erkek ve 90 kız) öğrencidir. Öğrencilerin yaşları 8 ve 12 arasında değişmektedir. Öğrencilerin görev, performans yaklaşımı ve performans uzaklaşımı hedefleri üçlü başarı hedef modeli anketi ile değerlendirilmiştir. Enstitü ve okul onayı alındıktan sonra bütün katılımcılardan ve ailelerinden izin belgesi alınmıştır. Bütün veriler bahar 2006 eğitim-öğretim yılında elde edilmiştir. Üçlü başarı hedef modelinin faktöryel geçerliliği (factorial validity), iç tutarlılık güvenilirliği (internal consistency reliability), doğrulayıcı faktör analizi (confirmatory factor analyses) ve içtutarlılık değer testleri ile yapılmıştır. Faktör analizi genellikle psikolojik ölçme aracı geliştirmek veya ölçme aracının temel aldığı var sayılan yapıyı test etmek amacıyla kullanılan bir analiz türüdür. Veriler AMOS 5.0 ve SPSS 11.5 istatistik programları kullanılarak analiz edilmiştir.

Doğrulayıcı faktör analizini kullanırken yapılan ki-kare istatistiği modelin kesin uyumunu değerlendirir. Ancak bu analiz katılımcı sayısına karşı hassastır. Bu nedenle diğer uyum indeksleri ele alınır. Bunlardan biri Bentler’in karşılaştırmalı uyum indeksi (the Bentler's comparative index) olarak da bilinen karşılaştırmalı uyum indeksi (comparative fit index- CFI), 0.00 ile 1.00 arasında değişen değerler almaktadır. .90 ve üzeri değerler modeli kabul edebileceğimiz değerlerdir. İndeksin .90 ve üzerinde çıkması veri grubundaki %90 oranındaki kovaryans, önerilen model ile açıklanabileceğini ifade eder. Diğer bir uyum indeksi de normlanmamış uyum indeksi, (Non-normed fit index-NNFI). NNFI’da CFI’da olduğu gibi 0.00 ile 1.00 arasında değişen değerler almaktadır. .90 ve üzeri değerler modeli kabul edebileceğimiz değerlerdir. Bir diğer uyum indeksi de yaklaşımın ortalama karekök değeridir (Root mean square of approximation-RMSEA). RMSE’in .05 ve daha düşük değerler alması iyi uyumun göstergesidir.

*Bulgular:* Bu çalışmanın sonunda bütün istatistiksel değerlerin ( $\chi^2/df = 1.09$ , CFI = .99, NNFI = .98, and RMSEA = .02) üçlü başarı hedefi modelinin veri ile uyumlu olduğu tespit edilmiştir. Üç başarı hedefinin (görev yönelimli, performans yaklaşımı ve performans uzaklaşımı) Cronbach alfa değerleri .74, .85 ve .71’dir. Bu istatistiksel sonuçlar, daha önce üniversite ve teorik derslerde yapılan araştırmalar ile paralellik göstermekte olup, ilköğretim beden eğitimi ve spor derslerinde de üçlü başarı hedef modelinin geçerliliğini ve güvenilirliğini onaylamıştır. Kısaca, bu çalışmanın sonuçları üçlü başarı modelinin alınan veri ile uyumlu olduğunu ve olumlu psikometrik özellikler göstermiştir.

*Sonuç ve Öneriler:* Bu çalışma üçlü başarı hedef modelinin geçerliliğini ve güvenilirliğini tespit etmiş ve bu modelin ilköğretim seviyesinde



uygulanabilirliğini kanıtlamıştır. Bu sonuçlar daha üst sınıflar kullanılarak ve beden eğitimi ve spor alanı dışında yapılan arařtırmalar ile paralellik göstermektedir. Hâlbuki gelecekte yapılması düşünölen arařtırmalar gerek farklı sosyo-ekonomik seviyeden gerekse farklı kültörel yapıdan gelen öđrencileri kullanarak öçlü başarı hedef modelinin geçerlilik ve güvenilirliğini tekrar tespit edebilirler. Ayrıca farklı eğitim kurumlarının (özel ya da devlet okulları gibi) kullanılması da öçlü başarı hedef modelinin geçerlilik ve güvenilirlik seviyesini arttırabilecektir. Yapılan bu çalışmada öđrencilerin cinsiyet ayrımına bakılmadı. Biliyoruz ki kız ve erkek öđrencilerin başarı motivasyonları ve/veya başarıyı algılayışları farklı olabilir. Bu farklılık eğitim kurumlarında öđretmenlerin ders planlarında gerekli düzenleme yapmalarına neden olabilir. Bu yüzden gelecekte yapılacak arařtırmalar, kız ve erkek öđrencilerin motivasyon farklılıklarını inceleyebilir.

*Anahtar Sözcükler:* Başarı hedefleri, dođrulayıcı faktör analizi, ilköđretim okulu, beden eğitimi,

## Accelerated Learning in Classroom and Computer Environments

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### Abstract

*Problem Statement:* Emotions have effects on learning. Learning becomes more effective in emotionally non-threatening environments. The power of emotions should be taken into account when designing, developing, and implementing learning environments.

Emotions have a key role in accelerated learning; an instructional model which emphasizes learning will enhance knowledge without anxiety, stress, and prejudices. Accelerated learning claims that learning occurs both at conscious and subconscious planes and that working principles of the human brain should also be considered during instruction.

*Purpose of the Study:* The basic aim of the study is to compare the effects of accelerated learning in a classroom environment with the effects of accelerated learning in a computer environment, and also with effects of expository teaching.

*Methods:* The research is an experimental study. It was carried out using a science and technology lesson. The research was conducted with 73 students studying in the 5th grade in a primary school in Ankara. Three groups were randomly assigned a learning environment. The first group learned with accelerated learning in a classroom environment. The second group learned with accelerated learning in a computer environment. Finally, the third group learned through expository teaching. Throughout the research, data regarding the students' achievement was collected. Student and teacher opinions were also collected. Data was analyzed using

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percentages, t test for paired samples, ANOVA and ANCOVA tests. All hypotheses were tested at a .05 significance level.

*Finding and Results:* The findings of the study showed that both accelerated learning environments had a more positive impact on student achievement than did expository teaching. However, accelerated learning in a classroom environment and accelerated learning in a computer environment were equal in effecting student achievement. Student and teacher opinions indicated students preferred accelerated learning.

*Conclusions and Recommendations:* According to the results, accelerated learning should be considered for an instructional model in science education. Accelerated learning principles could be employed in educational software design to increase the retention of knowledge and student motivation.

**Keywords:** Accelerated learning, Lozanov model, computer aided instruction, learning environment, instructional technology, educational software

It is well known that emotions have effects on learning (Bruton, 2003). Learning is associated not only with our cognitive abilities, but also with our emotions, expectations, prejudices, self efficacy, and our social needs. Emotions serve as a powerful vehicle for enhancing or inhibiting learning (Greenleaf, 2003). They may initiate, terminate, or disrupt information processing or they may organize recall. (Pekrun, Goetz and Titz, 2002). Emotions also have an effect on learning and achievement and are mediated by attention, self-regulation, and motivation; emotions direct a person toward or away from learning matters with in a learning situation (Ellis and Ashbrook, 1988). Studies indicate that the human brain responds more quickly to stimuli that it finds to be meaningful. Also, the human brain tends to better recall emotionally-loaded stimuli. Meaningful knowledge is associated with existing knowledge better and makes learning more effective. Emotions have important roles in deciding what is meaningful and what is not (Bruton, 2003).

Positive emotions are usually considered as “pleasant” states of emotions and are distinguished from negative emotions regarded as “unpleasant” states of emotions (Gadanhó and Hallam, 2001). Positive emotions facilitate self-regulated learning (Boekaerts, Pintrich, and Zeidner, 2000) and have a great impact on learning, curiosity, and creative thought (Norman, 2004). Learning becomes more effective in emotionally non-threatening learning environments when individuals feel secure (Bruton, 2003). Therefore, the power of emotions should be taken into account when designing, developing, and implementing learning environments. At this point, accelerated learning becomes an eye catching model.

Accelerated learning in an instructional model. It emphasizes that learning enhances when anxiety, stress and prejudices are not present. Accelerated learning

claims that learning occurs both at conscious and subconscious planes and also that the working principles of the human brain should be considered during instruction. Accelerated learning was formulated in late 1960s by Georgi Lozanov, a Bulgarian psychiatrist (Clark, 2001). Emotions have a key role in accelerated learning (LeHecka, 2002).

The basic principles of accelerated learning are: suggestion, desuggestion, authority, infantilization, double planeness, intonation, rhythm, and concert pseudo-passivity (Lozanov, 1978).

Suggestions are messages that come from the environment and from the individual's self. These messages could be addressing the conscious or subconscious planes. Lozanov referred to these messages as suggestions. He claims that the reserved capacities of individuals could be released by suggestion. Lozanov gives seven sources of suggestion. These are: verbal messages of teacher, nonverbal messages of teacher, classroom decoration, lesson materials, learning activities, peer messages, and self messages.

Desuggestion is also a kind of suggestion. Because they are barriers to learning, negative feelings and negative thoughts about learning should be eliminated. This is desuggestion. Barriers to learning could be rational, emotional, and ethical. Real learning capacity can be revealed by using suggestion and desuggestion together.

Authority is the reputation and respectfulness of the suggestion's source. Students tend to accept suggestions coming from an authority. They also tend to recall knowledge better when coming from a respected source (Akturk, 1998). Hence, teachers using accelerated learning should have a respected authority over the students.

Infantilization is a child-like but not a childish state. It is the role of a child in a child-mother relationship. This principle aims to employ the natural skills of children, such as curiosity and ability for memorizing, in learning environments. Infantilization is strongly tied with authority. In other words, the degree of infantilization is determined by the degree of authority (Clark, 2001).

Double planeness concerns the messages that come from the environment that the individual is not conscious about (Bass, 1985; LeHecka, 2002). These subliminal messages have a great impact on human learning. Accelerated learning has a strong emphasis on positive learning environments. Therefore, classroom design, teacher characteristics, and the arrangement of learning activities are believed to affect learning both consciously and unconsciously (Clark, 2001).

Intonation is the usage of the human voice in an appropriate manner. As stated earlier, suggestions can be verbal or non verbal, such as body language. Intonation should be considered while using verbal suggestions. An alternate meaning to what is being said could be expressed by intonation. Intonation has a strong influence on learning and on suggestion at the emotional and subliminal planes.

Rhythm is reading text in harmony with music (Bass, 1985). Rhythm can be maintained by putting pauses between words, or by slowing down the reading. By

using rhythm, text read can be saved from boredom and emotional flavor can be added to the reading experience (Clark, 2001).

Concert pseudo-passivity is a state at which students are relaxed and open to suggestion. In practice, the concert is a part of a lesson where slow music accompanies the lesson (Clark, 2001). Accelerated learning states that students can give all their energy to learning and focus more in a relaxed state where there are no prejudices and no stress. In other words, the absence of stress and negative thoughts make people more open to suggestion (Bass, 1985; Clark, 2001). In order to maintain a relaxed state, classical and baroque music should accompany lessons. Generally, the concert session is divided into two parts as active and passive concerts. In the active state, the lesson is read with intonation and with classical music in the background. During the passive state the same text is read once more, but this time with baroque music in the background (Akturk, 1998; LeHecka, 2002).

In practice, accelerated learning lessons generally have 3 phases. These are the pre-session phase, session phase, and post-session phases. During the pre-session phase, explanations (if necessary) and a review of previous lessons take place. The session phase starts with relaxation. Relaxation could be maintained by physical exercises, by fantasy trips, or just by listening to slow paced music. After relaxation, students enter a relaxed awareness state where they feel peaceful, but they are not allowed to fall asleep. Verbal suggestions could take place both at the pre-session and session phases. The session phase also contains active and passive concerts where new information is provided. New information should be provided with music in the background. The teacher reads the material in accordance with the music. Generally, classical era pieces are preferred for active and baroque era pieces are preferred for passive concert states. During the active concert state students may follow the text. However, on the contrary, students just listen to the text, with the music in the background, during the passive concert state. They are expected to absorb information unconsciously. Finally the post-session phase contains elaborative activities such as playing, singing, and drills are examples of such activities.

Literature contains a vast number of non-scientific studies on accelerated learning. Generally these studies are built upon personal experiences and speculative claims. Most of these studies claim that accelerated learning has positive effects on student performance, motivation, participation, and retention of knowledge. On the other hand, it is observed that related scientific studies have weaknesses in documentation and methodology. Even Lozanov did not document his own studies properly.

Dipomo and Job (1991) investigated scientific studies about accelerated learning and determined that these studies were generally poorly documented. They had methodological weaknesses and their results did not support speculative claims such as 1000% increase in student performance.

Another eye catching point about literature on accelerated learning is that most of the studies are only on concert pseudo-passivity, one of the principles of accelerated

learning. However, as Lozanov (1978b) states, a successful accelerated learning application should apply all accelerated learning principles. Accelerated learning has a great potential to offer different instructional opportunities. This model should be studied with the guidance of contemporary knowledge and technology.

On the other side, nowadays, the use of ICT in education is becoming more and more obligatory due to the increasing volume of information, the increasing emphasis on individual differences, and the increasing number of students (Alkan, 1984). Today, the main discussion is on how to use ICT effectively in education. But unfortunately, many decades after the introduction of ICT into classrooms, there are still unanswered questions about the impact of technology in the long and short term on students' learning, and how it has affected simple and complex learning tasks (Cox and Marshall, 2007). Many years after the introduction of ICT into educational systems still we cannot state about integration. Bax (2002) prefers the term "normalization" to define the integration goal. The term normalization is relevant to any kind of technological innovation and refers to the stage when the technology becomes invisible, embedded in everyday practice, and hence "normalized". Normalization will occur when ICT becomes more humanistic and overcomes technological limitations related to hardware and software. In fact, current ICT have strict limitations in terms of interactivity and emotionality. As Prensky (2001) states, the present generation of students want active participation and want to be able to emotionality manipulate presented objects; they expect a degree of emotionality and interactivity, these limitations may be barriers to ICT integration.

At this point, the implementation of accelerated learning in a computer based/assisted learning environment is an unexamined topic. The accelerated learning model may help educational technologists and educators in developing an emotionally sound computer based/assisted learning environment. Although academic studies involving accelerated learning have been conducted, the model has not been experienced in an incomputer based or assisted learning environments. In other words, it is not clear how accelerated learning in computer environment will function.

### **Purpose of the Study**

The basic aim of this research is to determine the effects of different accelerated learning environments, classroom and computer, on student achievement. Because expository teaching has been one of the most frequently used methods in the Turkish education system, it was also included in this study. In order to reach these aims, the following questions were addressed:

1. Are there significant differences between pretests and posttests of:
  - a. An expository teaching group?
  - b. accelerated learning in classroom environment group?
  - c. accelerated learning in computer environment group?
2. Are there significant differences between the academic achievements of three groups?
3. What are the students' opinions about accelerated learning?

4. What are the teachers' opinions about accelerated learning?

### Method

This research is an experimental study. The independent variable of the study is a teaching method which has three categories: expository teaching, accelerated learning in a classroom environment, and accelerated learning in a computer environment. The dependent variable of the study is academic achievement. Academic achievement has two categories that are pretest and posttest.

#### *Participants*

The study was carried out with 73 fifth-grade students in a primary school located in the Kurtulus district of Elmadag/Ankara/Turkey. All students' parents were of the average socio-economical level. Each of the three groups were assigned randomly to expository teaching, accelerated learning in a classroom environment, and accelerated learning in a computer environment. The groups were identical in terms of student number, socio-economical level, and gender distribution.

#### *Materials*

No special materials were developed for the expository teaching group, the course book was followed. However, special materials were developed for the accelerated learning groups keeping in mind the principles of accelerated learning (suggestion, desuggestion authority, infantilization double planeness, intonation, rhythm, and concert pseudo-passivity).

All materials and measurement tools were prepared in parallel with the objectives of the science and technology lesson curriculum (Earth, Sun, and Moon unit) which was prepared by the Turkish Ministry of Education. The objectives of the unit were generally in the knowledge and comprehension categories according to the Blooms Taxonomy. The unit had no objectives involving critical thinking, creative thinking, or problem solving skills. Because accelerated learning has a strong emphasis on memory and retention of knowledge, this unit was especially selected for this experimental study.

The steps of material design were as follows:

- A literature review was carried out.
- Short stories and texts were written for indirect suggestion. A primary school teacher reviewed and corrected the stories.
- Eligible musical pieces were chosen.
- Texts were written for relaxation and direct suggestion. A primary school teacher reviewed and corrected the texts.

- The content of the course was prepared after reviewing the course book and lesson objectives from the curriculum. A primary school teacher reviewed and corrected the content.
- Activities were prepared for the post session phase. A primary school teacher reviewed and corrected the activities.
- Three educational songs were written by a music teacher and a primary school teacher.
- Video based software for the computer environment was designed. All texts were reviewed and read in front of a camera. The accelerated learning teacher who was going to teach in the classroom environment took the role of filming. After correcting and editing videos, educational software was developed. The software was checked many times to run error free.

### *Computer environment*

There were 25 personal computers in the computer environment. All computers had headphones. Students studied individually. The software used was designed according to the following accelerated learning principles:

**Table 1**

*Accelerated Learning Principles and Educational Software Design*

Accelerated Learning Principles	Educational Software Design Principles
Suggestion and Desuggestion	Use of direct verbal suggestion Indirect verbal suggestion using stories Increasing suggestibility using music and animations
Authority	Use of decorative components to reflect authority Use of human voice and video to reflect authority Use of high quality animations, videos, and sounds Error free software
Infantilization	Use of decorative components to reflect infantilization Use of educational songs Use of activities and educational games
Double Planeness	Creation of a suggestive environment by use of music, relaxation animations, and stories.
Intonation	Reading text with intonation High quality sounds
Rhythm	Designing learning activities in a rhythm Use of music and animations to provide rhythm
Concert pseudo-passivity	Use of classical and baroque music

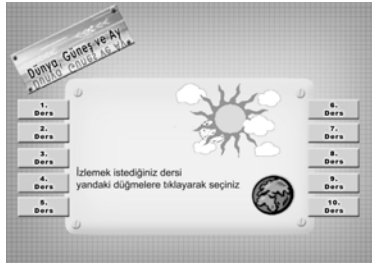


When students ran the software, the first screen to appear was the welcoming screen. They were asked to sit relaxed, wear the headphones, and adjust volume to their preference. When they were ready, they clicked on the start button to access main menu. The main menu contained 10 icons, one for each lesson. Lessons were video based. Other than the videos, the software contained multiple choice questions, games, and other interactive activities. Students could pause the lesson when needed. Lessons were in a linear structure, no branching was allowed. At the beginning of each lesson, students did pre-session activities. At this stage, a short revision of the previous lesson and a few motivating questions about the current day's lesson took place. Afterwards, they participated in an indirect suggestion activity. The indirect suggestion consisted of videos about motivating stories. Stories were supported with music to increase suggestibility. The indirect suggestion activity was followed by a relaxation activity. During the relaxation activities the students listened to fantasy trip texts that had accompanying music and they imagined themselves going on this trip. Fantasy trips were made to naturally appealing places such as a beautiful island. The final activity of the pre-session phase was a suggestion activity. During the suggestion activity the students listened to and repeated direct suggestive sentences such as "I love learning" or "learning is fun".

After the suggestion activity the pre-session phase ended and the session phase began. As stated earlier, the session phase contained active and passive parts. First, new material was read with classical music in the background. This was the active phase. Students concentrated on the text and watched related images during this phase. Next was the passive phase. During the passive phase, the same material was read with baroque music in the background. This time the students relaxed and listened to the music.

The final phase of the lessons was the post-session phase. The post-session phase contained some interactive activities to repeat and elaborate on new information. Crosswords, model making, creative writing, or role playing (role playing videos for the computer environment) are examples of post-session activities. No homework was given.

Sample screenshots from the software are as follows:



Main Menu



Indirect Suggestion Activity



Relaxation Activity



Concert Phase



Model Making Activity



Crossword Activity

### *Classroom environment*

Because accelerated learning pays special importance to learning environments, accelerated learning environments should be warm and visually appealing, in which student will feel relaxed and secure. For this study, the classroom environment was decorated with curtains and flowers. Visual materials such as informative posters were hung on classroom walls. Also, a music system was set up and music CDs were provided.

### *Teacher Education*

Due to the special importance given to teacher characteristics in accelerated learning applications, the teacher chosen for the classroom application had to have the desired characteristics. The accelerated learning teacher had authority, paid attention to her work, and could effectively use intonation, drama, and educational games at lessons.

Three meetings were arranged with the teacher before the experimental study. During these meetings accelerated learning principles and applications, and possible problems that may arise during the application, were discussed.

### ***Data Collection Devices***

Student achievement was measured by a test which was developed by the researcher. The test consisted of 20 open ended questions. The questions were based on the lesson curriculum. After reviewing course books and curriculum, possible question items were drafted. The opinions of 14 educational experts and primary school teachers were obtained concerning the selected items. The items about which all experts specified a positive opinion were the ones included in the final form. An evaluation key was also developed. A measurement and evaluation expert supervised the entire process.

Student opinions were collected through a questionnaire developed by the researcher. The questionnaire consisted of six open ended items. The items were developed after a literature review and after receiving the opinions of a primary school teacher. Teacher opinions were collected through interviews. Interview questions were also formulated after a reviewing the literature.

### ***Implementation***

The study was implemented as a Science and Technology lesson. The duration of the implementation was 5 weeks. During the first week, necessary explanations were made and a pretest was given.

The study lasted for 10 lessons (3 lessons each week). Each lesson was 40 minutes in length. In both accelerated learning groups the learning activities were arranged according to pre-session, session, and post-session phases. For the pre-session phase, suggestive stories and texts were used. Also previous lessons were recapped by questions. Afterwards, the students relaxed while listening to slow paced music and fantasy trips. Listening to and repeating direct verbal suggestion sentences ended the pre-session phase and led to the session phase. During this phase, new information was provided. Lesson texts were read two times; the first time with classical music in the background and second with baroque music in the background. During the last phase (post-session), elaborative activities such as singing, crossword solving, model making, and role playing were performed. The last lesson for the accelerated learning group was spent as a general review of the unit.

In the classroom environment, the teacher supervised all activities. She read suggestive stories, asked questions, read new material in accordance with music, and provided visual materials such as posters and pictures. She also supervised post-session activities.

The teacher of the students who learned in the computer environment took the students to the computer room. He helped the students turn on computers and run the software. He also supervised the students while they completed their tasks.

In the expository teaching group, all activities were done according to the steps specified in the curriculum (gain attention, motivation, revision, learning activities, and summary). This group was provided with examples and organizers, such as tables and mind maps, during the lessons. The teacher summarized the topic at the end of each lesson. Also, the activities in the course book were performed.

### The Analysis of Data

The paired samples t test, ANOVA, and ANCOVA were used to analyze data. In the first place, the difference between the pretests of the three groups was analyzed using ANOVA. The results of the ANOVA analysis are given in table 2.

**Table 2**  
*Difference between Pretests*

Groups	N	$\bar{X}$	S	Df	F	P
Accelerated Learning in Classroom Environment	22	26.62	13.49			
Accelerated Learning in Computer Environment	26	41.27	17.78	2	5.54	.006
Expository Teaching	25	32.76	15.76			

ANOVA results indicated a significant difference between pretests. This means that posttest scores were needed to be controlled statistically. So ANCOVA was chosen to analyze the difference between posttests.

## Findings and Results

### *Differences between pretests and posttests within each group*

A paired samples t test was performed to test the difference between pretests and posttests within each group. Table 3 shows the data regarding the paired samples t test. It can be seen that there are significant differences between the pretests and posttests within each group. This finding shows that all of the three methods have positive effects on learning.

**Table 3**  
*Differences between Pretests and Posttest within Each Group*

	Expository Teaching			Accelerated Learning in Classroom Environment			Accelerated Learning in Computer Environment		
	$\bar{X}$	t	p	$\bar{X}$	t	p	$\bar{X}$	t	P
Pretest	32.76	5.94	.00	26.62	14.99	.00	41.27	9.58	.00
Posttest	44.52			58.87			67.00		

*Differences between posttests of each group*

An ANCOVA analysis was performed to test the differences between posttests. Table 4 shows pretest and posttest scores and also corrected posttest scores.

**Table 4**  
*Pretest, Posttest and Corrected Posttest Scores*

	Expository Teaching		Accelerated Learning in Classroom Environment		Accelerated Learning in Computer Environment	
	$\bar{X}$	$\bar{X}$ corrected	$\bar{X}$	$\bar{X}$ corrected	$\bar{X}$	$\bar{X}$ corrected
Pretest	32.76	-	26.62	-	41.27	-
Posttest	44.52	45.14	58.87	63.42	67.00	62.56

ANCOVA results analyzing the difference between the posttests are given in table 5. Table 6 shows that there is a significant difference between the groups in terms of posttest scores [ $F = 28.82, p < .05$ ]. This finding shows that at least one of the methods has more of an effect on learning. A posthoc Scheffe test was performed to test the differences between the paired groups.

**Table 5**  
*ANCOVA Results*

Source of Variance	Sum of Squares	Df	Mean of Squares	F	P
Pretest	6375.63	1	6375.63	70.39	.000
Group	5218.64	2	2609.82	28.82	.000
Error	6249.36	69	90.57		
Total	6439.45	47			

Table 6 shows the Scheffe test results. It can be seen that there is a significant difference between the expository teaching group and the other two accelerated learning groups, in terms of the posttest scores. On the other hand, there is no significant difference between accelerated learning in the classroom environment and accelerated learning in the computer environment, in terms of posttest scores. These results show us that accelerated learning in both environments has a more positive impact on learning than does expository teaching. In addition, accelerated learning in the computer environment has the same impact on learning as accelerated learning in the classroom environment.

**Table 6**  
*Scheffe Test Results*

	Expository Teaching	Accelerated Learning in Classroom Environment	Accelerated Learning in Computer Environment
Expository Teaching	-	F=18.28, p<.05	F=17.41, p<.05
Accelerated Learning in Classroom Environment	F=18.28, p<.05	-	F=2.96, p>.05
Accelerated Learning in Computer Environment	F=17.41, p<.05	F=2.96, p>.05	-

#### *Student Opinions*

The students' opinions about accelerated learning in the classroom environment are given in table 7. According to the table, all students who learned with accelerated learning in the classroom environment stated that they liked the application in some way. About half of the students (44.44%) stated that the unit was fun. 40.74% of the students liked listening to information with music at the background. One third (33.33%) of the students stated they liked the relaxation activities. 25.93% of the students think that they learned the topic better than they had other topics.

**Table 7**  
*Student Opinions about Accelerated Learning in Computer Environment*

	f	%
The unit was fun	12	44.44
I liked listening to the information with music at the background	11	40.74
I liked relaxation activities	9	33.33
I liked everything about the application	7	25.93
I liked singing	7	25.93
I understood better with help of this application	7	25.93
I learned quicker with music	1	3.70

Student opinions about accelerated learning in the computer environment are given in table 8. According to the table, 62.96% of the students who learned in the computer environment stated that they liked the relaxation exercises. This results was followed by listening to the lessons with music in the background (59.26%), and singing (33.33%). 18.52% of this group stated that they liked everything about the application.

On the other hand, 14.81% of the students in this group thought that the music volume was too loud, 7.41% of them found the musical pieces boring. Even 1 student stated that he could not understand the lesson because of the music.

**Table 8**

*Student Opinions about Accelerated Learning in Computer Environment*

	f	%
I liked relaxation activities	17	62.96
I liked playing games	16	59.26
I liked listening to lesson with music in the background	16	59.26
I liked singing	9	33.33
I liked everything about the application	5	18.52
I learned better with the help of this application	4	14.81
Lesson would be better without music	5	18.52
The music was loud	4	14.81
The music was boring	2	7.41
I could not understand some lessons because of the music	1	3.70

#### *Teacher Opinions*

Mrs. Gonul, who implemented the accelerated learning application in the classroom environment, stated that her students began looking forward to science and technology lessons once they started using the accelerated learning application. She thinks that, generally, all of her students liked accelerated learning. Some liked it because they liked listening to the lessons with accompanying music, others liked it because they found the accelerated learning to be different and interesting. Mrs. Gonul also stated that accelerated learning helped her to communicate better with low achieving students. One of these students said that the suggestions were so effective that she got up early in the morning and studied her lessons.

Mr. Bahadır, who supervised the accelerated learning application in the computer environment, stated that all of his students liked the application; they went to the computer room running. According to his observations, the students listened to the lessons and effectively participated in the relaxation exercises. He also thinks that accelerated learning best suits low achieving students.

### **Conclusions and Recommendations**

Computers and related technologies have often been perceived as means for achieving a wide range of educational goals, including increasing student performance, enhancing student motivation for learning, and ensuring annual academic progress (Biol et. al, 2009). Although it has been many decades since the introduction of ICT into classrooms, there are still unanswered questions about the impact of technology on students' learning (Cox and Marshall, 2007). Although there is a large body of optimistic research, it still is difficult to talk about an ICT integration. According to one view (Bax, 2002), integration will occur when ICT becomes more humanistic and overcomes the technological limitations related to hardware and software. In fact, the current ICT has strict limitations in terms of interactivity and emotionality. Since emotions serve as a powerful vehicle for enhancing or inhibiting learning (Greenleaf, 2003), the lack of emotionality in current technologies is one of the barriers to this integration. Although there is an increasing interest in the inquiry on emotions in education, learner emotions in computer based/assisted learning environments has not become a serious research interest among educational technologists.

Accelerated learning is an instructional model which puts great emphasis on positive emotions. This manuscript embodies three chief aims. First, we wished to determine the effects of different accelerated learning environments on student achievement. Second student opinions and finally teacher opinions about the application were determined.

Overall, the results showed that the accelerated learning groups in both environments were more successful than the expository teaching group. As an empirical study, it is worthwhile to note the limits of the study, but this finding indicates that accelerated learning should be considered as an option in science education. This finding is congruent with a large body of related literature. Despite all methodological deficiencies, there are many studies supporting the positive effect of accelerated learning on student achievement (Bordon and Schuster, 1976; Walters, 1977; Schuster and Prichard, 1978; Render and Boyle, 1982; Schuster and Mouzon, 1982; Stein, Hardy and Totten, 1982; Bass and Bass, 1986; Cooter, 1986; Prichard, 1986; Felix, 1989; Nelson, 1989; Dincay, 1990; Akturk, 1998; Post, 1998).

On the other hand, the two accelerated learning groups had equal achievement. This means that accelerated learning in a computer environment has an equal impact on student achievement with that of accelerated learning in the classroom environment. This finding is significant because it shows that accelerated learning in a computer environment could be used successfully for at least science education. Accelerated learning has many principles such as authority, concert pseudo-



passivity, and suggestion which may increase the effectiveness of educational software. These principles should be considered while designing educational software. For example, music may be employed during presentations, or relaxation exercises may be used before lessons. Human-like characters which show intelligent behaviors may be used in stories and teaching to maintain authority. Suggestion is especially an interesting principle of accelerated learning. As stated earlier, suggestion could be direct or indirect. For future research, indirect suggestion should be studied using new developments in the fields of advertisement, cinema, and graphical design.

We know that emotions have effects on learning and retention. Despite the great emphasis that accelerated learning places on positive emotions, there are findings that in some cases mild negative emotions may also have positive effects on learning and motivation (Pekrun, Goetz and Titz, 2002). Still, it is not very clear which emotion has how much effect on what kind of learning. Also, some educators may find accelerated learning environments to be too optimistic, unrealistic, and plasticated. New studies in this area, therefore, are obviously needed.

Although the software developed for this study did not have an emotion recognition capability, educational software that is sensitive to user emotions could be developed and tested. We hope that such software would increase learner motivation and retention of knowledge. For example Shen, Wang, and Shen (2009), integrated biofeedback devices into a college e-learning platform and collected biophysiological data such as heart rate, skin conductance, blood volume pressure, and brainwaves. In this study, researchers concluded that the bio-physiological may be used successfully to increase learner performance. Yet, such systems are subject to research and far from real life applications. We invite future researchers to study on the role of emotions in learning and the development of affective software.

Student opinions indicate that students liked accelerated learning. Teacher opinions also support that finding. Teachers think that accelerated learning has positive effects on student participation and motivation, especially for low achieving students. Also, according to teacher opinions, accelerated learning has some positive effects on student-teacher communication. For future research, the effects of accelerated learning with differently achieving students should be studied. The effects of accelerated learning on student-teacher communication should also be studied.

## References

- Akturk, H. (1998). *Telkin metodunun askeri lisan okullarında İngilizce kelime öğretiminde kullanılması* [Using suggestopedia for teaching English words at military language schools in Turkey]. Unpublished Master Dissertation, Ankara University, Ankara.
- Alkan, C. (1984). *Eğitim teknolojisi* [Educational technology]. Ankara: Atilla Press.

- Bass, J. A. F. (1985). *The effects of the suggestive accelerative learning and teaching method and a structural analysis method on vocabulary learning*. Unpublished Doctoral Dissertation, University of Georgia, Georgia.
- Bass, J. F., & Bass, R. V. (1986). SALT components in the teaching of English composition. *Journal of the Society for Accelerative Learning and Teaching*, 11(1), 3-10.
- Bax, S. (2002). CALL - past, present and future. *System*, 31, 13-28.
- Birol, C., Bekirogullari, Z., Etcı, C., & Daglı, G., (2008). Gender and computer anxiety, motivation, self-confidence, and computer use. *Eğitim Araştırmaları - Eurasian Journal of Educational Research*, 34, 185-198.
- Boekaerts, M., Pintrich, P. R., & Zeidner, M. (2000). *Handbook of self-regulation*. San Diego, CA: Academic.
- Bordon, R. B., & Schuster, D. H. (1976). The Effects of suggestive learning climate synchronized breathing and music on learning and retention of Spanish words. *The Journal of Society for Accelerative Learning and Teaching*, 1(1), 27-40.
- Bruton, L. (2003). *A study of learning, memory and emotion*. Unpublished Doctoral Dissertation, University of La Verne. California.
- Clark, M. L. (2001). Suggestopedia: Then and now. Has it changed? Unpublished Master Dissertation . University of Southern California. Los Angeles.
- Cooter, S. (1986). Teaching English grammar and punctuation rules and practice: A five year study on SALT and suggestopedia methods. *The Journal of Society For Accelerative Learning and Teaching*, 11(2), 82-102.
- Cox, M. J., & Marshall, G. (2007). Effects of ICT: Do we know what we should know? *Educ Inf Technol*, 12, 59 - 70.
- Dıncay, T. (1990). *Suggestopedia and designing a sample lesson plan for teaching dialogues*. Unpublished Masters Dissertation, Gazi University, Ankara.
- Dipamo, B., & Job, R. F. S. (1991). A methodological review of studies of SALT (Suggestive-accelerative learning and teaching) techniques. *Australian Journal of Educational Technology*. 7(2), 127-143.
- Ellis, H. C., & Ashbrook, P. W. (1988). *Resource allocation model of the effect of depressed mood states on memory*. Toronto, Ontario, Canada: Hogrefe International.
- Felix, U. (1989). *An investigation of the effects of music, relaxation and suggestion in second language acquisition in schools*. Unpublished Doctoral Dissertation, Flinders University, Adelaide, Australia.
- Gadanhö, S. C., & Hallam, J. (2001). Robot learning driven by emotions. *Adaptive Behavior*, 9(1).
- Greenleaf, R. (2003). Motion and emotion in student learning. *Principal Leadership*, September.

- Lehecka, C. F. (2002). *How experts define accelerated learning*. Unpublished Doctoral Dissertation, University of North Carolina at Greensboro, Greensboro.
- Lozanov, G. (1978), *Suggestology and suggestopedia: Theory and practice*. Paris: United Nations Educational, Scientific and Cultural Organization (UNESCO). Retrieved from <http://unesdoc.unesco.org>
- Nelson, J. (1989). Discover the joy of learning through suggestopedia. *Journal of the Society for Accelerative Learning and Teaching*, 14(1), 43-54.
- Norman, D. A. (2004). *Emotional design*. New York: Basic Books.
- Pekrun, R., Goetz, T., & Titz, W. (2002). Academic emotions in students' self-regulated learning and achievement: A program of qualitative and quantitative research. *Educational Psychologist*, 37(2), 91-105.
- Post, G. (1998). *An investigation into the application of accelerated learning theory as it relates to improving employee performance in the learning organization for the 21st century*. Unpublished Doctoral Dissertation, Northern Illinois University, Illinois.
- Prensky, M. (2001). *Digital game-based learning*. New York: McGraw-Hill.
- Prichard, A. (1986). A SALT pilot study: College developmental mathematics. *The Journal for the Society of Accelerative Learning and Teaching*, 11(3), 167-175.
- Render, G. F., & Boyle, C. L. (1982) The relationship between the use of fantasy journeys and creativity. *The Journal of Suggestive Accelerative Learning and Teaching*, 7 (3). 269-276.
- Schuster, D. and Mouzon D. (1982). Music and vocabulary learning. *The Journal of Society for Accelerative Learning and Teaching*, 7(1), 82-106.
- Schuster, D., & Prichard, A. (1978). A two year evaluation of the suggestive accelerative learning and teaching (SALT) method in central Iowa public schools. *Journal of Suggestive Accelerative Learning and Teaching*, 1, 116 - 123.
- Shen, L., Wang, M., & Shen, R. (2009). Affective e-learning: Using emotional data to improve learning in pervasive learning environment. *Educational Technology & Society*, 12 (2), 176 -189.
- Stein, B. L., Hardy, C. A., & Totten, H. L. (1982). The use of music and imagery to enhance and accelerate information retention. *Journal of the Society for Accelerative Learning and Teaching*, 7(4), 341-355.
- Walters, R. G. (1977). An experimental evaluation of suggestive accelerative learning as a method of teaching vocational agriculture. *Journal of Suggestive Accelerative Learning and Teaching*, 2, 36-61.

## Sınıf ve Bilgisayar Ortamlarına Dayalı Hızlandırılmış Öğrenme

### (Özet)

*Problem Durumu:* Genel olarak duygular, insan davranışları üzerinde önemli role sahiptir. Duyguların ayrıca öğrenme üzerinde de etkileri olduğu bilinmektedir. Öğretimin başarılı olabilmesi için eğitimde duygulara önem verilmesi gerekmektedir. Bu düşüncenin uygulamaya aktarılmasına yönelik yaklaşımlardan birisi de hızlandırılmış öğrenme modelidir. Hızlandırılmış öğrenme, öğrenmenin kaygı, stres ve önyargılar olmadan kolaylaşacağını, eğitim uygulamalarında bilinçdışı ve bilinçli öğrenmelerin bir arada kullanılması gerektiğini, öğretimde beynin çalışma ilkelerinin dikkate alınması gerektiğini öne süren bir öğretim modelidir. Hızlandırılmış öğrenme modeli 1960'ların sonlarında Bulgar psikiyatr Georgi Lozanov tarafından oluşturulmaya başlanmıştır. Hızlandırılmış öğrenmede duygular anahtar roldedir. Hızlandırılmış öğrenmenin temel aldığı kimi ilkeler vardır. Bunların başlıcaları telkin ve zıt telkin, otorite, çocuksuluk, çift düzlem, tonlama, ritim ve konser sunumlarıdır. Telkin; bireyin çevresinden ve kendinden gelen mesajlardır. Bu mesajlar hem bilince hem de bilinçaltına yönelik olabilmektedir. Lozanov, telkin adını verdiği uyarıcıların bilinçaltını etkileyerek bireyin gizli kapasitesini açığa çıkaracağına, telkinle öğrenmenin kolaylaşacağına inanmaktadır. Zıt telkin; bireyin öğrenmeyle ilgili önyargılarını, olumsuz tutumlarını yok etmek üzere telkinde bulunma anlamına gelmektedir. Bireylerin gerçek kapasitesi ancak telkin ve zıt telkinin bir arada kullanılmasıyla ortaya çıkabilmektedir. Otorite; bilgi kaynağının ve telkinlerde bulunan bireyin saygınlığıdır. İnsanlar, otoritesini kabul ettikleri bir kaynaktan gelen bilgileri daha çok önemsemekte ve bu bilgileri daha çok hatırlamaktadır. Çocuksuluk; oyunculuk ve çocuk gibi olma durumudur, öğrenenin bir anne-çocuk ilişkisindeki çocuğun rolüne bürünmesidir. Bu ilke, çocukların merak, doğallık, kolay ezber yapabilme gibi özelliklerinin öğrenme ortamına taşınmasını sağlamaya yöneliktir. Çift düzlem; çevreden gelen ancak bireyin bilinçli olarak farkında olmadığı uyarıları ifade etmektedir. Bu bilinçaltı uyarılar, öğrenme üzerinde güçlü etkilere sahiptir. Tonlama; öğretmenin sesini uygun biçimde kullanabilmesidir. Gerçekte ne istendiği ve neye önem verildiği tonlamayla aktarılabilir. Ritim; okunan metnin müzikle uyum içinde okunmasıdır. Ritim kullanılarak metin sıkıcılıktan kurtarılabilir ve metne duygusal bir tat eklenebilir. Konser; öğrencilerin dinlenmiş, rahatlamış ve telkine açık oldukları bir durumu ifade etmektedir. Uygulamada ise konser, öğrenme sürecine yumuşak ve yavaş tempolu müziklerin eşlik etmesi olarak anlaşılmaktadır. Hızlandırılmış öğrenmede ders anlatımları sırasında anlatıma klasik ve barok müzik parçaları eşlik etmektedir.

*Çalışmanın Amacı:* Bu çalışmada ele alınan temel sorun, hızlandırılmış öğrenmenin uygulandığı ortamlarla birlikte başarı üzerindeki etkisinin değişip değişmediğinin belirlenmesidir. Araştırmada ayrıca Türkiye'de

sıklıkla kullanılan bir öğretim yöntemi olması dolayısıyla sunuş yoluyla öğrenmeyle hızlandırılmış öğrenmenin başarı üzerindeki etkileri de karşılaştırılmaktadır.

*Yöntem:* Araştırma deneysel niteliktedir. Araştırmanın bağımsız değişkeni öğrenme ortamıdır. Araştırmanın bağımlı değişkeni ise başarıdır. Araştırmanın çalışma grubunu Ankara ili Elmadağ ilçesi Kurtuluş İlköğretim Okulu beşinci sınıfta öğrenim gören 73 öğrenci oluşturmaktadır. Öğrencilerin tamamı Elmadağ Kurtuluş Mahallesi'nde oturan orta sosyo-ekonomik düzeydeki ailelerin çocuklarıdır. Üç grupta (sınıf ortamında hızlandırılmış öğrenme, bilgisayar ortamında hızlandırılmış öğrenme ve sunuş yoluyla öğrenme) öğretim görecektir gruplar seçkisiz yolla belirlenmiştir. Cinsiyet, sosyo-ekonomik düzey gibi belli başlı özellikler açısından gruplar denktir. Fen ve teknoloji dersi Dünya, Güneş ve Ay ünitesi ile ilgili başarı ve kalıcılık puanları araştırmacı tarafından geliştirilen başarı testi kullanılarak ölçülmüştür. Bu test, Dünya, Güneş ve Ay ünitesi kazanımları temel alınarak hazırlanmıştır. Öğrenci görüşleri araştırmacı tarafından geliştirilen anket formu kullanılarak alınmıştır. Öğretmen görüşlerinin alınmasında ise görüşme yolu tercih edilmiştir. Hızlandırılmış öğrenme grupları için modelin ilkelerine ve dersin kazanımlarına uygun materyaller hazırlanmıştır. Bilgisayar ortamında öğrenecek grup için hazırlanan yazılım video tabanlı olarak geliştirilmiştir. Videolar sınıf ortamında hızlandırılmış öğrenme uygulamasını gerçekleştiren öğretmenin rol almasıyla çekilmiştir. Sunuş yoluyla öğrenme grubu için herhangi bir materyal hazırlanmamış, bu grupta ders kitabı kullanılmıştır. Deneysel işlem süresince her iki hızlandırılmış öğrenme grubunda da seans öncesi, seans ve seans sonrası etkinlikleri gerçekleştirilmiştir. Seans öncesi aşamanın başında öğrencilerin öğrenmeye ve ders çalışmaya yönelik tutumlarını etkileyebilecek metinlere, öykülere yer verilmiştir. Ardından daha önce öğrenilenlerle ilgili sorular sorularak öğrenilenlerin hatırlanması sağlanmıştır. Yeni işlenecek konuyla ilgili bazı açıklamaların yapılmasının ardından rahatlatma etkinliklerine yer verilmiştir. Rahatlatma etkinliklerinde öğrenciler rahatlatıcı bir müzik eşliğinde hayal yolculuklarına çıkmıştır. Bu yolculuklar sırasında öğrencilerin hem fiziksel hem de zihinsel olarak rahatlamalarına yönelik cümleler kullanılmıştır. Rahatlatmanın ardından doğrudan sözel telkin cümlelerini dinleyen ve tekrar eden öğrenciler seans aşamasına hazır duruma gelmiştir. Seans aşaması konser sunumlarından oluşmaktadır. Bu aşamada ders metni önce klasik müzik eşliğinde okunmuş, ardından aynı metin barok müzik eşliğinde tekrar okunmuştur. Metinler konuya uygun biçimde tonlanarak okunmuştur. Seans sonrası aşamada ise öğrencilerin öğrendiklerini tekrar edebilecekleri, eklemleyebilecekleri etkinliklere yer verilmiştir. Bu kapsamda cümle tamamlama, şarkı söyleme, yaratıcı yazma, resimli öykü yazma, doğaçlama yapma, soru cevap ve model oluşturma etkinlikleri gerçekleştirilmiştir. Sunuş yoluyla öğrenme grubunda ise dersler ders planında belirtilen basamaklara (dikkati çekme,

güdüleme, gözden geçirme, öğrenme etkinlikleri ve özet) uygun biçimde işlenmiştir. Sınıf ortamında yapılan tüm etkinlikler ders öğretmenin rehberliğinde yürütülmüştür. Bilgisayar ortamındaki etkinliklerin gerçekleştirilebilmesi için sınıf öğretmeni öğrencilerini bilgisayar odasına götürerek yazılımı çalışmalarını ve tüm etkinlikleri tamamlamalarını sağlamıştır.

*Bulgular:* Araştırmada elde edilen bulgulara göre her iki hızlandırılmış öğrenme grubunun başarıları ile sunuş yoluyla öğrenme grubu başarıları arasında hızlandırılmış öğrenme grupları lehine anlamlı farklar bulunmaktadır. Ancak sınıf ortamında hızlandırılmış öğrenmeyle bilgisayar ortamında hızlandırılmış öğrenme arasında başarı yönünden bir fark bulunmamıştır. Öğrenci görüşlerine göre hem sınıf hem de bilgisayar ortamlarında öğrenen denekler hızlandırılmış öğrenme uygulamasından hoşlanmıştır. Ancak bilgisayar ortamında öğrenen deneklerin küçük bir kısmı dersin müzikle işlenmesiyle ilgili olumsuz görüş belirtmiştir.

Uygulamayı gerçekleştiren öğretmenlerin görüşlerine göre hızlandırılmış öğrenme öğrencileri güdülemekte, özellikle düşük başarılı öğrencilerin derse olan ilgilerini artırmakta ve öğretmen-öğrenci iletişimini olumlu yönde etkilemektedir.

*Sonuç ve Öneriler:* Her iki hızlandırılmış öğrenme grubunun da sunuş yoluyla öğrenme grubundan daha yüksek başarı elde ettiği göz önüne alındığında hızlandırılmış öğrenmenin fen ve teknoloji öğretiminde dikkate alınması gereken bir model olduğu sonucuna varılabilir. Ancak bu konuda daha fazla araştırmanın yapılması gerekmektedir.

İki hızlandırılmış öğrenme grubunun başarı yönünden denk olmaları, başarıyı etkileme yönünden bilgisayar ortamında hızlandırılmış öğrenmenin sınıf ortamında hızlandırılmış öğrenmeyle denk olduğu biçiminde de yorumlanabilir. Buradan yol çıkılarak bilgisayar ortamında hızlandırılmış öğrenmenin fen ve teknoloji eğitiminde başarıyla kullanılabilmesi sonucuna ulaşılabilir. Aslında hızlandırılmış öğrenme bünyesinde yeni öğretim olanakları sunabilecek ilkeleri barındırmaktadır. Bu ilkeler gerek öğrenme ortamlarının oluşturulmasında gerekse eğitsel yazılımlarının hazırlanmasında işe koşulabilir. Bu konuda daha fazla çalışmanın yapılması gerekmektedir.

Öğretmen ve öğrenci görüşlerine göre hızlandırılmış öğrenme öğrenci motivasyonu üzerinde olumlu etkiye sahiptir. Uygulamayı gerçekleştiren öğretmenler hızlandırılmış öğrenmenin özellikle düşük başarılı öğrenciler açısından daha faydalı olacağını düşünmektedir. Öğrenci ve öğretmen görüşleri doğrultusunda hızlandırılmış öğrenmenin farklı başarı düzeylerindeki öğrencilerin başarıları ve öğretmen-öğrenci iletişimi üzerindeki etkilerinin incelenmesi anlamlı olacaktır.

*Anahtar Sözcükler:* Hızlandırılmış öğrenme, Lozanov modeli, bilgisayar destekli öğretim, öğrenme ortamı, eğitim teknolojisi, eğitsel yazılım

## Examining Individual-Counseling Practicum in a Turkish Undergraduate Counseling Program

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### Abstract

*Problem Statement:* A critical component in counselor education training is the practicum experience. Practicum is the first opportunity to assess the counseling student's ability to apply the knowledge and skills obtained from course work with clients. For an effective practicum process, supervised clinical work is a pivotal experience in the development of professional counselors. Regarding counselor education, under the core areas of helping skills, practicum experience is provided by the Individual-Counseling Practice I-II courses in Turkey. Therefore, in the present study, the effectiveness of these courses is examined.

*Purpose of Study:* The main purpose of the study was to evaluate the effectiveness of individual-counseling practice courses on the basic counseling skill competency levels of Turkish undergraduate counseling students and to investigate the supervision process of the courses.

*Methods:* A mixed methods approach was used to obtain well-validated and substantiated findings. A one-group pre-test post-test design study was carried out with a sample of 42 senior counseling students. The Counseling Skill Discrimination Scale (CSDS) was used to gather data. Focus group interviews were conducted with 10 counseling students to gain a deeper understanding of the counseling students' evaluations of the courses.

*Findings and Results:* The results showed that individual counseling practicum courses seemed to be effective in improving the reflection of content skill and also general basic counseling skills competency level of

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counseling students but not in improving the reflection of feeling skill. The results of the focus group interviews also are discussed with respect to counseling skills enhancement, supervision intervention, methods, supervisory relationship, and evaluation process.

*Conclusions and Recommendations:* The overall results of this study seemed to suggest that individual-counseling practice courses offer an enriching experience for the undergraduate counseling students and foster the steps toward the development of skillful counselors. However, the supervision process of the individual-counseling practice courses needs an improved structure and organization.

*Keywords:* Individual-counseling practice courses, counseling practicum, counseling supervision, basic counseling skills

A major focus in counselor education is the professional development of skillful counselors. Counselor skillfulness has been characterized as counselor skills in the areas of technical skills, therapeutic approaches and interventions, and counselor cognitive skill development (Whiston & Coker, 2000). The development of technical skills (e.g., basic interviewing skills, helping skills) is especially addressed in counselor education programs, usually during prepracticum courses (Whiston & Coker, 2000). However, it has been pointed out that skill based training models, as prerequisite training to practicum, used in many counselor education programs may not be sufficient to assist students in skill retention with real clients.

To maximize skill retention, increasing the integration of classroom training with the actual practice of counseling skills during the practicum is highly important. In this manner, a critical component in counselor education training is the practicum experience. Practicum is the first opportunity to assess the counseling student's ability to apply the knowledge and skills obtained from course work with clients (Bradley & Fiorini, 1999). Many countries in the world train counselors, and professional organizations in these countries have created standards for counselor education programs. For example, according to the Council for Accreditation of Counseling and Related Educational Programs (CACREP, 2001), clinical instruction includes supervised practica and internships that have been completed within a student's program of study. Students must complete supervised practicum experiences that a total minimum of 100 hours. The practicum provides for the development of counseling skills under supervision. For an effective practicum process, supervised clinical work is a pivotal experience in the development of professional counselors (Borders and Brown, 2005). Research studies have provided evidence of the impact of supervision on the development of skills, self-awareness, and self-efficacy of supervisees (Wheeler & Richards, 2007). Moreover, in the United States, a substantial body of literature exists concerning counselor education, specifically on counseling practicum and counseling supervision (Prieto, 1996; Bernard & Goodyear, 2004; Borders & Brown, 2005), including the main elements of the supervision process such as supervision models (e.g., Ronnestad & Skovholt, 1993), supervision interventions (e.g., Hillenbrand, 1989; Wilbur, Roberts-Wilbur,



Hart, Morris & Betz, 1994; Starling & Baker, 2000; Ogren & Jonsson, 2003), supervision methods (e.g., Arthur & Gfroerer, 2002), supervisory relationships, and the roles and responsibilities of supervisors and supervisees. On the other hand, there are few empirical and systematic evaluations of attained skills following practicum supervision (Bradley & Fiorini, 1999).

#### *Counselor Education in Turkey*

The Turkish counseling movement dates back to 1950 and derives largely from advances and developments in the United States' system of counseling. In addition, the Turkish counselor education model was greatly influenced by the American counselor education model at the beginning (Doğan, 2000). Turkey, one of the rare countries in the world that has been carrying out counselor education at three levels (undergraduate, master's, and doctoral), predominantly trains counselors at the undergraduate level (Doğan, 2008).

The major purpose of the undergraduate program is to provide students the basic counseling formation and also to develop the knowledge, performances, and dispositions needed to work effectively and professionally as a counselor, primarily within the school setting and also within different public and private institutions. For undergraduate counselor education programs, there is no identification like "clinical instruction" in counselor education as CACREP. However, under the core areas of "helping skills," the individual counseling practicum courses are given. These are Individual-Counseling Practice I and II.

In Turkey, there has been little research done concerning counselor education in general (Akkoyun, 1995; Doğan & Erkan, 2001) or about counseling skills (Bikos, Uruk, Sun, Karairmak, & Denizli, 2003; Yaka, 2005), prepracticum skill training courses (Bektaş & Aladağ, 2005; Aladağ & Bektaş, 2007), counseling practicum, and counseling supervision in particular (Kavas, 2006). In this regard, the main purpose of this study was to evaluate the Individual-Counseling Practice I-II courses and the courses effectiveness on increasing the basic counseling skill competency levels of Turkish senior undergraduate counseling students. This study also aimed to investigate the supervision process of the courses in the guidance and counseling undergraduate program at a large western state university in Turkey. The basic counseling skill competency levels can be defined as the ability to discriminate between effective and ineffective verbal helping messages. Helping messages represent the counselor's reflection of feeling and content responses (Lee, Zingle, Patterson, Ivey, & Haase, 1976). Since one of the main goals of individual-counseling practicum courses is to train students to use these basic reflection skills in a helpful manner. It is needed to examine courses effectiveness for providing some evidences of validation for successful completion of the courses and also to determine the needs for the revision.

In order to examine the main purpose, the following research questions were asked;

1. What is the effect of the Individual-Counseling Practice I-II courses on the basic counseling skill competency levels of counseling students?

2. How do counseling students evaluate Individual-Counseling Practice I-II courses in terms of their basic counseling skills competency levels and supervision process of courses?

## Method

### *Research Design*

A concurrent triangulation strategy (mixed methods approach) was used to obtain well-validated and substantiated findings (Creswell, 2003). A one-group pre-test post-test design study was carried out with a sample of 42 senior undergraduate counseling students. Focus group interviews were also conducted with 10 senior undergraduate counseling students in order to more deeply understand the senior undergraduate counseling students' evaluations of the courses and their supervision process.

### *Sample*

This study was conducted with undergraduate counseling students in the Guidance and Counseling Undergraduate Program of a large state university located in western Turkey, during the 2005-2006 academic year.

*Participants of the counseling skill discrimination scale (CSDS):* Out of 60 senior undergraduate counseling students, 42 counseling students (20 females and 22 males) were willing to participate in the study.

*Participants of the focus group interviews:* Out of the 42 participants, 10 senior undergraduate counseling students were selected for focus group interviews. This was done by using the maximum variation sampling strategy of the purposeful sampling method, with respect to their gender and GPA. Then, these 10 students were assigned to two different focus groups.

### *Research Instruments*

*The counseling skill discrimination scale (CSDS):* The CSDS was used to assess the basic counseling skill competency level of the counseling students. The CSDS was adapted to Turkish culture by Yaka (2005) from the formerly used Micro-counseling Skill Discrimination Scale (MSDS) developed by Lee et al. (1976). The purpose of the CSDS is for measuring the counseling students' ability to discriminate between effective and ineffective verbal helping messages. For a validity study of the CSDS, Yaka (2005) conducted a confirmatory factor analysis to determine the content and constructs validity of the scale. The results of the factor analysis yielded two factors in terms of effective and ineffective verbal helping messages. For a reliability study of the CSDS, Yaka (2005) reported the Cronbach alpha reliability coefficients of the Turkish version of CSDS as .87 for effective helping messages and .94 for ineffective helping messages.

The CSDS includes 44 client-counselor interactions on a 7-point scale ranging from most negative (1) to most positive (7) representing Reflection of Feeling (CSDS-RF) and Reflection of Content Responses (CSDS-RC). The possible scores that can be

obtained from the scale changed between 44 and 308. Higher scores indicate that individuals have a higher ability to discriminate between effective and ineffective verbal helping messages.

*Focus group interviews:* Focus group interviews were conducted in order to more deeply describe the effect of the supervision process on the counseling skills. Out of 42, 10 counseling students were invited to attend a focus group. There were two focus groups, each including five students. In this study, the researchers were also the instructors of the two courses that were investigated. As a result, another faculty member in the program was asked to lead the focus groups as a moderator so that the students would not fear that what they may disclose during the focus groups could affect their grades in the courses and, therefore, a more reliable information set could be obtained. The moderator's main role was to help counseling students stay on task and be responsible for time management. The moderator began the focus group by getting permission to audiotape the interview. The moderator also took notes in order to prevent data loss. The moderator also briefly described the purpose of the focus group and ensured them of confidentiality. Examples of interview questions were: "What were your expectations from the Individual-Counseling Practice I-II courses (and specifically for counseling skill enhancement)?" "Which of your expectation(s) were met?" and "What are the most and the least helpful aspects of the courses for developing counseling skills?"

#### **Validity and Reliability**

*The reliability of the research instrument.* In the present study, the Cronbach alpha reliability coefficients of the Turkish version of the CSDS was found as .77 for effective helping messages and .81 for ineffective helping messages.

*The validity and reliability of analysis of focus group interview.* In order to verify internal reliability, researcher variation was used. When the coding process was completed, researchers came together and discussed their codes, themes, and the possible conflicts. The other analysis conducted concerning the consistency of the study used parallel student comments that supported each other. In order to verify the external reliability of the study, both the participants and the data collection instruments were described in as much detailed as possible. Moreover, the data collected was saved for further analysis of other researchers. For the internal validity of the study, consistency was achieved during the data collection, data analysis, and data interpretation processes. For the external validity of the study, research design, data collection procedure, data collection instruments, data analysis, and the interpretation of data and organization of the findings were described in detail.

#### **Individual-Counseling Practice I-II Courses**

The individual-counseling courses are given in the last year of the undergraduate program. Individual-Counseling Practice I involves the carrying out of at least 15 individual counseling sessions under supervision using basic counseling skills and techniques. Meanwhile, Individual-Counseling Practice II involves the carrying out of at least 15 individual counseling sessions under supervision using basic and advanced counseling skills and techniques of a specific counseling theory. In these

courses, the students are divided into small groups so that each instructor (faculty supervisor) is responsible for 12 to 14 counseling students. Each small group is also divided into two supervision groups (6 or 7 students). Each individual-counseling practice course takes 5 hours weekly. Therefore, the group supervision hour is approximately 2-2.5 hours for each supervision group. This means that every counseling student in each weekly supervision group has supervision for 20 minutes of his/her counseling sessions.

In the present study, for each course, the counseling students were required to conduct individual counseling sessions with two real clients at most. They audio taped the counseling sessions and transcribed them on a regular basis for supervision. In addition, after their fifth counseling session, they wrote case notes instead of transcribing the entire session. Before group supervision, each counseling student evaluated her/his counseling session with respect to a) the kind of each of their responses on the transcript, b) the effectiveness of it, c) if not effective, what a more effective response would be, d) the conceptualization of client problems and an intervention plan. They participated weekly in group supervision. Before the group supervision, each supervisor read and evaluated each student counseling session transcript. During the group supervision, each student presented his/her counseling session. After a general summary, each student first received feedback from his/her supervisor and then from his/her peers. Supervision was mainly conducted based on four main focus areas: counseling skills (basic/advanced skills, process skills), case conceptualization and counseling interventions, professional behaviors, and self-awareness.

#### *Procedure*

This study was conducted in the spring semester of the 2005-2006 academic year. The Counseling Skill Discrimination Scale (CSDS) was administered to counseling students both at the beginning and the end of the courses in order to examine their basic counseling skill competency levels. In addition, two focus group interviews were also conducted at the end of the academic year.

#### *Data Analysis*

The data was analyzed through qualitative and quantitative data analysis methods. For research question 1, the paired sample t-test was used to examine the basic counseling skill competency levels of the counseling students. In order to test research question 2, content analysis was used. First, audiotapes of each focus group interviews were transcribed and a qualitative data set was created by combining the participants' answers with the questions in the focus groups. The data set was continuously read by the researchers and during these readings a draft coding list was formed. By this draft coding list, qualitative data was coded. During draft coding, possible themes were created. The coding process was completed when the researchers came together and discussed their codes, themes, and the possible conflicts. How students evaluated the counseling courses was investigated by both examples about themes and codes.

## Findings and Results

### *The Basic Counseling Skill Competency Levels of Counseling Students*

There was a significant difference between the pre- and the post-test scores of the CSDS-RC,  $t(41) = -2.254$  and  $p = .030$ . There was also a significant difference between the pre- and the post-test scores of the CSDS,  $t(41) = -2.245$  and  $p = .030$ . However, there was no significant difference between the pre-test and the post-test scores of the CSDS-RF,  $t(41) = -1.327$  and  $p = .192$  (see Table 1).

In other words, the results indicated that there had been an increase in the competency levels of the students' reflection of content skills and also of general basic counseling skills. However, there was no increase in the competency level of the counseling students' reflection of feeling skills.

**Table 1**

*The Means and Standard Deviations of the Pre-test and Post-test Scores of the CSDS with the Paired t-Test Comparisons*

Test	Subscales/ Scale	M	SD	t	df
Pre-test	CSDS-RF	124.62	7.48		
Post-test	CSDS-RF	126.21	8.31	-1.327	41
Pre-test	CSDS-RC	122.93	9.3		
Post-test	CSDS-RC	126.21	10.8	-2.254*	41
Pre-test	CSDS	247.55	14.60		
Post-test	CSDS	252.43	17.50	-2.245*	41

CSDS-RF= Reflection of Feeling Responses; CSDS-RC = Reflection of Content Responses; CSDS= CSDS general, \*  $p < .05$

### *Senior Undergraduate Counseling Students' Evaluations of the Course*

The second research question referred to the senior counseling students' evaluations of the Individual Counseling Practice I-II courses in terms of their basic counseling skills competency levels and the supervision process of courses. The content analysis results of the students' responses during the focus groups indicated six main themes: (a) expectations from the courses, (b) contributions of the courses, (c) the most and least helpful aspects of the courses, (d), supervisory relationship, (e) basic problems and (f) suggestions.

### **Expectations**

Under the expectations theme, five expectations were mentioned: (a) to learn how to conduct counseling, (b) to use counseling skills effectively with real clients, (c) to transfer what they learned theoretically into practice, (d) to determine their own counseling styles, and (e) to get regular and effective supervision. One of the students mentioned that:

*"Since we learned these skills in class environment, I expected to use counseling skills effectively with real clients."*

Of the 10 students, eight reported that their expectations were met. This was reflected in such statements as:

*"I think that supervision became a jumping point for us because it provided us opportunities to use counseling skills with real clients."*

*"These courses taught us how to conduct counseling with real clients."*

However, two students stated that their expectations were not met because of the irregular supervision and inadequacy of the courses to help them with respect to the development of advanced counseling skills. One counseling student said:

*"I don't know how objectively I was evaluated and I received little feedback about my sessions."*

### **Contributions of Courses**

Under this topic it was seen that each course's contribution was evaluated separately. The majority of the counseling students agreed that while Individual-Counseling Practice I was effective in enhancing basic counseling skills, Individual-Counseling Practice II was effective in improving advanced counseling skills. This was reflected in the following statements:

*"The first semester course helped us to internalize basic counseling skills."*

*"With the second semester practice course, we really started to better understand where and how to use advanced counseling skills."*

However, some counseling students pointed out that they experienced difficulties in implementing counseling interventions.

### **The Most and Least Helpful Aspects of Courses**

Under this theme it was found that the *transcription of counseling sessions* and *group supervision* were the most helpful aspects of courses. One of the students mentioned that::

*"While transcribing, I experienced my previous session again. I saw clearly what I did, and also what I could do different than what I did."*

The other student said that:

*"With transcripts, we had a chance to see the effect of our responses on our clients and were also discuss what other responses might be more effective in the supervision sessions."*

About group supervision, one of the students indicated that:

*"The most helpful part was group supervision. I had a chance to get feedback from both my supervisor and my peers. I also had a chance to see my peers' approaches to counseling."*

In terms of the least helpful aspects of courses, *case notes* were found to be ineffective. One counseling student stated that:

*"Case notes decreased the effectiveness of supervision since it did not reflect the entire session and then you missed many points of the session."*

Moreover, some students also stated that sometimes *audio taping* was not always useful because supervisors had no time to listen to each session entirely. Moreover, there was no opportunity to listen to them during group supervision sessions.

#### ***Supervisory Relationship***

Under this theme, two aspects of the supervisory relationship were mentioned: (a) *academic competencies and teaching skills*, and (b) *human relationships and communication*. Regarding both academic and relational aspects, the majority of the students evaluated their supervisors positively. One of the students stated:

*"My supervisor was so professional and very good at developing effective relationships with us."*

However, they also reported their concerns. Regarding the academic aspect, one student commented:

*"Supervisors should come together in order to reach a consensus about how to supervise us in practice courses."*

Regarding the relational aspect, one counseling student stated that:

*"Supervisors should balance positive and negative feedback, and also give more constructive feedback."*

#### ***Basic Problems***

Two main problems were mentioned by the students as (a) *the structure of the courses* and (b) *counseling sessions*. Regarding the structure of the courses, the following problems were emphasized as: (a) too many students in each supervision group, (b) insufficient supervision time for each student, (c) long supervision hours and the lack of breaks, and (d) the unavailability of rooms for supervision (most of the sessions were conducted in the supervisors' offices). The majority of the students mentioned that the duration for each student in weekly group supervision (approximately 20 minutes) was not sufficient. This was reflected in one of the student's statement:

*"In this duration, I reported my session in five minutes, then I had only 15 minutes to get supervision. It caused me to skip many points of the session. "*

The majority of the students reported that they needed much more time for supervision, especially in the first semester when they are first starting to use counseling skills with real clients.

Regarding counseling sessions, the following problems were pointed out: (a) no place to conduct counseling sessions and (b) difficulties in finding clients.

### ***Suggestions***

In terms of suggestions to improve the effectiveness of the courses, eight suggestions were made: (a) limiting the number of students to five for each supervisor, (b) increasing the duration of supervision for each student, (c) increasing the number of supervisors in the program, (d) creating available places to conduct counseling sessions in the department, (e) creating opportunities for live supervision, (f) getting written evaluations from supervisors at the end of the courses, (g) decreasing the workload of students in the last year during the practicum, and (h) conducting supervision in more appropriate places.

## **Conclusions and Recommendations**

### ***The Basic Counseling Skill Competency Levels of Counseling Students***

The results showed that the Individual-Counseling Practice I-II courses were effective in improving the reflection of content skill and also on general basic counseling skills competency levels of counseling students. However, there was no significant difference regarding the reflection of feeling skill.

These results were supported by some of the experimental studies in the literature. However, in these studies, the reflection of content or basic skills competency level were not directly investigated. For example, Borders (1990) found that first practicum supervisees reported a significant increase in skills acquisition as a result of supervision. Ogren and Jonsson (2003) also revealed that group supervision had a favorable impact on supervisees' perceived psychotherapeutic skill acquisition. Moreover, the quantitative result of the present study was well supported by the reports of the counseling students during the focus group interviews concerning the positive effect of courses on increasing reflection of content skill and basic counseling skill competency level of counseling students. In these interviews, the majority of the students specifically reported that the Individual-Counseling Practice I course was effective in enhancing their basic counseling skills.

The lack of empirical evidence concerning the significant effect of individual-counseling practicum courses on reflection of feeling skill of counseling students might be attributable to several reasons. First, it can be stated that the reflection of feeling skill is a more detailed and complicated skill than reflection of content skill and, consequently, discriminating the effective and ineffective reflection of feeling responses is more difficult than discriminating effective and ineffective reflection of content responses. As it has been pointed out by Young (2001), reflecting feelings is



one of the most valuable tools of the counselor, but it is not an easy one to learn since feelings are often implicit in a client's statements and require hunches and guesses on the part of the helper to identify them. Understanding and getting to feelings may require more time and effort. Thus, it might be argued that counseling students need more practice and time to internalize the reflection of feeling skill into their repertoire during their development as a counselor. Secondly, the first step to reflecting feelings is identifying the client's feelings and the second step is articulating the underlying emotions detected in the client's statement. For the effective reflection of feeling, a counselor first should generate his/her own personal list of feelings. However, both in the prepracticum counseling skills training courses and individual-counseling practicum courses, it was observed that counseling students had difficulties identifying their own feelings. This difficulty might be related to cultural characteristics in which Turkish people experience some difficulty in identifying their feelings (Voltan Acar, 2004). There might be some explanations of this difficulty. The main cultural aspect may be related with family background or culture. In Turkish culture, expressing feelings usually is evaluated as a weakness and a majority of people use few feeling words.

However, in these interviews, the majority of the students reported that the Individual-Counseling Practice I course was effective in enhancing basic counseling skills including the reflection of feeling skill, and Individual-Counseling Practice II was also effective in improving advanced counseling skills. These results of focus group interviews might be accepted as evidence of the positive effect that the courses have on reflection of feeling skill. There are few empirical studies and systematic evaluations of attained skills following supervision. Therefore, the quantitative result of the present study seems to be promising in regard to the positive effect of the individual-counseling practice courses and their supervision process on the improvement of the basic counseling skills competency level of counseling students.

#### *The Qualitative Evaluation of Courses and Their Supervision Process*

In the evaluation of courses and their supervision process, through the focus group interviews, the overall examinations of the students' evaluations suggested that the students' expectations of the courses seemed to be largely met. Moreover, they stated that the courses contributed to their development of both basic and advanced counseling skills. More specifically, Individual-Counseling Practice I was found to be more effective in developing the students' basic counseling skills while Individual-Counseling Practice II was found to be more effective in developing their advanced counseling skills. Both of these results might indicate that the individual-counseling practice courses reached their previously defined goals in the course descriptions of the undergraduate counselor education program.

Two important themes emerged with respect to the supervision process being the most helpful aspect of the courses when it came to developing counseling skills: (a) the transcription of counseling sessions as a supervision method and (b) group supervision as a supervision intervention (format). Regarding transcripts, the majority of the counseling students found the transcription of the sessions to be very

beneficial for their self-evaluation and for their development as a counselor. However they reported that the transcription of sessions took a great deal time and, hence, became very difficult for them. Counseling supervision literature supported this result. Bernard and Goodyear (2004) emphasized the use of transcripts of counseling sessions as a supervision method to provide an enormous amount of material for a subsequent supervision session. Arthur and Gfroerer (2002) found that some positive attributes of using transcripts in supervision, as indicated by interns, were that it was time efficient, that it was easier to process specific aspects of the counseling dialogue, that interactions were visual and concrete, that it was easier to see where skills were employed and were needed, that the supervisor listened to the entire counseling session, and that it was used as a basis for feedback. Similar to the results of this study, the least positive attributes were also expressed as nonverbal omissions, time and the amount of work. Moreover, Borders and Brown (2005) highlighted the value of audiotapes since counseling students' reviews of their own tapes, as a teaching tool, became a self-supervision and self-monitoring process for them. It also increased their awareness of strengths and areas for growth, especially for counseling skills. They also suggested that reviewing entire sessions seemed particularly critical for supervisors in university training programs, as they are working with beginning level counselors who need lots of feedback. Overall, it can be concluded that the present study seems to suggest that transcribing counseling sessions as a supervision method may be a powerful resource for both supervisors and counseling students (supervisees). More specifically, transcripts could be especially beneficial in the first practicum process of counselor education where counseling students, developmentally, need lots of and more concrete feedback and also need more self-awareness as beginning counselors.

Regarding group supervision, the majority of the students found group supervision to be very helpful as an effective supervision format for their counseling skills development. They also specifically pointed out the value of the discussions in relating the effectiveness of their responses during the counseling sessions, of peer feedback, and of having the opportunity to listen to their peers' sessions as a learning opportunity. These results are consistent with those reported by US researchers (Hillerbrand, 1989; Wilbur, Roberts-Wilbur, Hart, Morris & Betz, 1994; Starling & Baker, 2000). Our results also mirrored the supervision literature such as the opportunity for vicarious learning to observe peers' successes and failures as they conceptualize and intervene in particular ways (Bernard & Goodyear, 2004) and the opportunity to learn from each other through feedback and brainstorming as emphasized by Borders and Brown (2005).

In the supervision literature, it has been argued that although the use of group supervision seems to be widespread in training programs, relatively little research have been focused specifically on the group supervision (Holloway & Johnson, 1985; Prieto, 1996). In this manner, although the present study specifically did not aim at examining the effectiveness of group supervision, the result of this study seemed to be promising regarding its positive effect on improving counseling skills. Moreover, this initial qualitative result of the positive effect of group supervision might be a starting point for further narrative or interview-based qualitative studies. These

could focus more specifically on the process of group supervision by which counseling students learn individual counseling, as pointed out in a review study of the group supervision literature conducted by Prieto (1996).

As the least effective aspect of the courses, the students' responses focused on the ineffectiveness of the case notes as a supervision method. The main reason for the ineffectiveness of this method was its lacked the representativeness of the entire session. One of the reasons for this might be related to the unstructured nature of the case notes. During the supervision process, the students were not provided with a structure for writing case notes. Therefore, a specific guideline that covers all of the important points of entire counseling session might be useful in making case notes more effective and useful.

Regarding the supervisory relationship, the majority of the students evaluated their supervisors positively with respect to their academic competencies, teaching skills, human relationships, and communication. However, they also reported their concerns about supervisors' feedback. They pointed out the importance and value of constructive feedback, the balance of supports and challenges, and the continuous encouragement during the supervision process. The developmental models of supervision, as pointed out by Ronnestad and Skovholt (1993), especially for the beginning counseling students, also showed the importance of more emotional support and less confrontational behavior or feedback from supervisors.

Regarding basic problems throughout the courses, the reported problems mainly focused on general structure, requirements of practice courses and the practice environment (such as the number of students in group supervision), duration of supervision, number of supervisors, place of both counseling and supervision sessions in the program, and workload of counseling students in the last year during the practicum. Once again, these results highlight the critical importance of practicum standards and also of the necessity of counseling facilities or laboratories with an assurance of privacy, as well as of having sufficient space and equipment to support a variety of types of supervisory activities in each counselor education program for successful practicum and supervision process.

The overall results of this study seem to suggest that individual-counseling practice courses offer an enriching experience for undergraduate counseling students and that foster the steps toward the development of skillful counselors. The results of this study concur with the goals of the practice courses under study, which emphasized supervision in basic skills and practice with real clients. However, since only one program was studied, the generalization of all undergraduate programs in counselor education is premature. Future researchers should continue to evaluate the effectiveness of individual-counseling practice courses with different research designs. The current study only provides preliminary information for counselor educators in Turkey regarding the effect of individual practice courses and their supervision process on the basic counseling competency level of counseling students. Furthermore, it is believed that the current study also helps counselor educators in different countries to better understand the effective modes of practicum supervision

from the perspectives of undergraduate counseling students. Generally, the results of the study suggest that individual-counseling practice courses and their supervision process are critical and worthwhile in the development of students as skillful counselors. However, the supervision process of individual-counseling practice courses needs an improved structure.

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### References

- Akkoyun, F. (1995). The problem of the relationship between the job title and the training programs in psychological counseling and guidance: A review and recommendations. *Turkish Counseling and Guidance Journal*, 2(6), 1-28.
- Arthur, G. L. & Gfroerer, K. P. (2002). Training and supervision through the written word: A description and intern feedback. *The Family Journal*, 10 (2), 213-219.
- Aladağ, M., & Bektaş, D. Y. (2007). *Enhancing counseling skills in counselor education*. Paper presented at 9th National Congress of Counseling and Guidance, October 17-19, Dokuz Eylül University, Turkey.
- Bektaş, D. Y., & Aladağ, M. (2005). *Scope and process of methods and techniques of counseling course*. Paper presented at 8th National Congress of Counseling and Guidance, September 21-23, Marmara University, Turkey.
- Bernard, J. M. & Goodyear, R. K. (2004). *Fundamentals of clinical supervision* (3rd Ed.). Boston: Pearson Education Inc.
- Bikos, L. H., Uruk, A., Sun, Z. E., Kararmak, Ö, & Denizli, S. (2003). *Examining helping skills used in counseling process according to helping skills system: An international comparison*. Paper presented at 7th National Congress of Counseling and Guidance, September 21-23, Inonu University, Turkey.
- Borders, L. D. (1990). Developmental changes during supervisees' first practicum. *The Clinical Supervisor*, 8 (2), 157-172.
- Borders, L. D., & Brown, L. L. (2005). *The New handbook of counseling supervision*. Mahwah, NJ: Lahaska/Lawrence Erlbaum.
- Bradley, C., ve Fiorini, J. (1999). Evaluation of counseling practicum: National study of programs accredited by CACREP. *Counselor Education and Supervision*, 39, 2, 110-119.
- Council for the Accreditation of Counseling and Related Educational Programs. (2001). 2001 Standards. Available: <http://www.cacrep.org/2001Standards.html>. Retrieved: June, 2007.
- Creswell, J. W. (2003). *Research design: qualitative, quantitative, and mixed method approaches*. Second Edition. USA: Sage Publications.
- Doğan, S. (2000). The historical development of counselling in Turkey. *International Journal for the Advancement of Counselling* (22), 57-67.
- Doğan, S., & Erkan, S. (2001). *Counselor education profile in Turkey: Current situation, problems and suggested solution*. Paper presented at the 6th National Congress

- of Counseling and Guidance, September 3-5, Middle East Technical University, Turkey.
- Doğan, S. (2008, April). *The route of counseling in Turkey*. Paper presented at the International Congress of Counseling, Istanbul, Turkey.
- Hill, C. E., & O'Brien, K. M. (1999). *Helping skills*. Washington, DC: American Psychological Association.
- Hillerbrand, E. (1989). Cognitive differences between experts and novices: Implications for group supervision. *Journal of Counseling and Development, 67*, 293-296.
- Holloway, E. L. & Johnson, R. (1985). Group supervision: Widely practiced but poorly understood. *Counselor Education and Supervision, 24* (4), 332-340.
- Kavas, A. B. (2006). *An evaluation of individual and group counseling practices*. Paper presented at the 11th National Congress of Counseling and Guidance Practices, Mersin University, Turkey.
- Lee, D. Y., Zingle, H. W., Patterson, J. G., Ivey, A. E., & Haase, R. F. (1976). Development and validation of a microcounseling skill discrimination scale. *Journal of Counseling Psychology, 23*(5), 468-472.
- Ögren, M. L., Jonsson, C. O., & Sundin, E. C. (2005). Group supervision in psychotherapy: the relationship between focus, group climate, and perceived attained skill. *Journal Of Clinical Psychology, 61*(4), 373-388.
- Prieto, L. R. (1996). Group supervision: Still widely practiced but poorly understood. *Counselor Education and Supervision, 35*, 295-307.
- Ronnestad, M. H., & Skovholt, T. M. (1993). Supervision of beginning and advanced graduate students of counseling and psychotherapy. *Journal of Counseling & Development, 71* (4), 396-406.
- Starling, P. V., & Baker, S. B. (2000). Structured peer group practicum supervision: Supervisees' perceptions of supervision theory. *Counselor Education and Supervision, 39*, 163-176.
- Voltan Acar, N. (2004). *Ne kadar farkındayım? Gestalt terapi [How am I aware? Gestalt therapy]*. Ankara: Babil Yayıncılık.
- Wheeler, S. ve Richards, K. (2007). The impact of clinical supervision on counsellors and therapists, their practice and their clients. A systematic review of the literature. *Counselling and Psychotherapy, 7* (1), 54-65.
- Whiston, S. C., ve Coker, J. K. (2000). Reconstructing clinical training: Implications from research. *Counselor Education and Supervision, 39* (4), 228-254.
- Wilbur, M. P., Roberts-Wilbur, J., Hart, G. M., Morris, J. R., & Betz, R. L. (1994). Structured group supervision (SGS): A pilot study. *Counselor Education and Supervision, 33*, 262-279.
- Yaka, B. (2005). *Examining the basic counseling skill competency levels of counselors according to some variables*. Unpublished Master Thesis, Ege University, Turkey.
- Young, M. E. (2001). *Learning the art of helping: Building blocks and techniques*. Upper Saddle River: Merrill Prentice Hall

## Bir Türk Psikolojik Danışma ve Rehberlik Lisans Programındaki Bireyle Psikolojik Danışma Uygulamasının İncelenmesi

### (Özet)

*Problem Durumu:* Psikolojik danışman eğitimin temel odaklarından biri de etkili psikolojik danışman yetiştirmektedir. Psikolojik danışmanın yeterliliği sahip olduğu teknik beceriler, terapötik yaklaşım ve müdahaleler ve psikolojik danışmanın bilişsel beceri gelişimi ile tanımlanmaktadır. Bu bağlamda yeterli/etkin psikolojik danışman yetiştirmede beceri eğitimi önemle üzerinde durulan konuların başında gelmektedir. Beceri eğitiminde sınıf içi eğitim ile psikolojik danışma uygulamalarını bütünleştirilmiş bir şekilde ele almak son derece kritiktir. Özellikle uygulamalar psikolojik danışman eğitiminin en temel öğelerindedir. Uygulama, psikolojik danışman adaylarına ders kapsamında öğrendikleri bilgi ve becerileri danışanlarla uygulama ve kendilerini değerlendirmeleri için olanak sağlamaktadır.

Etkili bir uygulama sürecinde, klinik çalışmaların süpervizyon eşliğinde yürütülmesi gereklidir. Süpervizyonun etkililiği üzerine yapılan araştırmalarda süpervizyonun beceri gelişimine, psikolojik danışman adayının öz farkındalık ve yeterlik kazanmasına katkısı olduğu görülmüştür.

Psikolojik danışma alanının doğduğu ve geliştiği A.B.D'deki psikolojik danışman eğitiminin standartları, Psikolojik Danışmanlık ve İlgili Programların Akreditasyonu Konseyi (The Council for Accreditation of Counseling and Related Programs [CACREP]) tarafından belirlenmektedir. Türkiye'de ise henüz psikolojik danışman eğitiminin hangi yeterlikler üzerinde nasıl yapılandırılması gerektiği tartışma aşamasındadır ve uzun süre de gündemde kalarak üzerinde tartışmaların ve çalışmaların yürütüleceği temel ve kritik bir konu olacağı söylenebilir. Öte yandan, Türkiye'de henüz psikolojik danışman eğitimi, uygulama öncesi ve uygulama derslerine, bununla birlikte uygulama kapsamındaki süpervizyon sürecine ilişkin yeterli araştırma bulunmamaktadır. Etkili bir psikolojik danışman yetiştirmenin en temel ve kritik öğelerinden biri verilen formal eğitimin niteliği olduğundan, ülkemizde PDR lisans ve lisansüstü programlarında kazandırılmaya çalışılan psikolojik danışma becerilerine ilişkin araştırmaların yapılmasının gereği ortadadır.

Mevcut PDR Lisans Programı ders tanımları incelendiğinde, Psikolojik Danışma İlke ve Teknikleri, Bireyle Psikolojik Danışma Uygulaması I ve II olmak üzere toplam üç ders kapsamında beceri eğitimi verilmektedir. Bu araştırmanın yürütüldüğü lisans programı kapsamında incelenen Bireyle Psikolojik Danışma Uygulaması I ve II dersleri son sınıfta iki dönem boyunca yer alan uygulama dersleridir. Bireyle Psikolojik Danışma Uygulaması I dersi süpervizyon altında temel psikolojik danışma beceri ve tekniklerini kullanarak en az 15 oturum bireyle psikolojik danışma

yapmayı, Bireyle Psikolojik Danışma Uygulaması II ise süpervizyon altında belirli bir psikolojik danışma kuramı çerçevesinde, temel ve ileri psikolojik danışma beceri ve tekniklerini kullanarak en az 15 oturum bireyle psikolojik danışma yapmayı içermektedir. Her öğrencinin gerçek danışanlarla en az 15 bireyle psikolojik danışma yapması beklenmektedir. Bireyle psikolojik danışmaların en fazla 3 farklı danışanla yapılması gerekmektedir. Yapılan psikolojik danışma oturumlarının hepsi kasete alınarak deşifre edilmektedir. Aynı zamanda öğrenciler oturumlarına ilişkin oturum özeti raporu da hazırlamaktadır. Her iki uygulama için de öğrenciler en çok 15 kişilik küçük gruplar halinde dersi veren öğretim elemanlarına atanmaktadır. Her küçük grup kendi içinde 7-8 kişiden oluşan iki gruba ayrılarak grup süpervizyonu yürütülmektedir.

*Araştırmanın Amacı:* Bu araştırmanın temel amacı “Bireyle Psikolojik Danışma Uygulaması I ve II” derslerinin Rehberlik ve Psikolojik Danışma lisans son sınıf öğrencilerinin temel psikolojik danışma yeterlik düzeylerine etkisini incelemek ve uygulama kapsamında yürütülen süpervizyon sürecine ilişkin öğrenci görüşlerini araştırmaktır.

*Araştırmanın Yöntemi:* Bu çalışmada karma araştırma yöntemi kullanılmıştır. Araştırmanın ilk aşamasında, Bireyle Psikolojik Danışma Uygulaması I ve II derslerinin psikolojik danışma son sınıf öğrencilerinin temel psikolojik danışma becerilerine ilişkin yeterlik düzeylerine etkisini incelemek amacıyla tek grup ön test son test modeli kullanılmıştır. Araştırmaya 42 son sınıf öğrencisi katılmıştır. Araştırmada Psikolojik Danışma Beceri Ayırt Etme Ölçeği (PDBAÖ) kullanılmıştır. İkinci aşamasında ise öğrencilerin bu derslere ve kapsamındaki süpervizyon sürecine ilişkin değerlendirmelerini araştırmak amacıyla 10 öğrenci ile odak grup görüşmesi yapılmıştır.

*Araştırmanın Bulguları:* Araştırmanın bulguları incelendiğinde psikolojik danışman adaylarının PDBAÖ’den aldıkları ön test ve son test puanlarının ortalamaları ve İçerik Yansıtma Tepkileri kısmından aldıkları ön test ve son test puanları arasında anlamlı bir fark bulunmuştur. Ancak Duygu Yansıtma Tepkileri kısmından aldıkları ön test ve son test puanları arasında anlamlı bir fark bulunamamıştır.

Ayrıca yapılan odak grup görüşmesi sonucunda öğrencilerin a) bireyle psikolojik danışma uygulaması derslerine ilişkin beklentileri, b) derslerin psikolojik danışman adaylarının becerilerine katkıları c) derslerin etkili ve etkisiz yönleri, d) süpervizyon ilişkisi, e) derste yaşanan temel sıkıntılar ve f) derslere yönelik öneriler olmak üzere altı temel tema elde edilmiş ve bu temalar çerçevesinde görüşler değerlendirilmiştir. Psikolojik danışma son sınıf öğrencilerinin derse ilişkin psikolojik danışma hizmeti vermeyi öğrenme, gerçek danışanlarla etkili bir şekilde psikolojik danışma becerilerini kullanma, kuramsal bilgilerini uygulamaya geçirebilme, kendi psikolojik danışma tarzını belirleme ve etkili ve düzenli süpervizyon alma olmak üzere beş temel beklentileri olduğu ve öğrencilerin çoğunun bu beklentilerinin karşılandığı görülmüştür. Öğrencilerin çoğu “Bireyle

Psikolojik Danışma Uygulaması I” dersinin temel psikolojik danışma becerilerini, “Bireyle Psikolojik Danışma Uygulaması II” dersinin ise ileri düzey psikolojik danışma becerilerini geliştirmede katkısı olduğunu belirtmiştir. Derslerin etkili ve etkisiz yönlerine ilişkin olarak ise bir süpervizyon tekniği olan deşifrenin ve bir süpervizyon formatı olan grup süpervizyonun etkili bulunduğu, bir süpervizyon tekniği olan oturma süpervizyon süresinin de çoğu öğrenci tarafından yetersiz bulunduğu görülmüştür. Süpervizör olarak öğretim üyelerine ilişkin olarak ise öğrencilerin çoğunun öğretim üyelerini hem akademik hem ilişki bağlamında olumlu değerlendirdikleri bulunmuştur. Son olarak derste yaşanan temel sıkıntılar iki ana tema altında toplanmıştır; dersin genel yapısı ve psikolojik danışma uygulamasına yönelik sıkıntılar.

*Araştırmanın Sonuçları ve Öneriler:* Bireyle Psikolojik Danışma Uygulaması I ve II derslerinin psikolojik danışma öğrencilerinin temel psikolojik danışma becerilerine ilişkin yeterlik düzeylerine etkisi incelendiğinde, bulgular, dersin sonunda psikolojik danışma son sınıf öğrencilerinin PDBAÖ’nün genelinde ve İçerik Yansıtma Tepkileri boyutundaki *etkili* ve *etkisiz* psikolojik danışman tepkilerini iyi ayırt ettiklerini göstermiştir.

Dersin değerlendirmesinde ise öğrencilerin derslere ilişkin beklentilerinin büyük oranda gerçekleştiği, derslerin temel ve ileri düzey beceriler kazandırmada katkısı olduğu bulunmuştur. Özellikle Bireyle Psikolojik Danışma Uygulaması I dersinin temel becerileri, Bireyle Psikolojik Danışma Uygulaması II dersinin ise ileri düzey beceri kazandırmada etkili olduğu görülmüştür. Bu bulgular doğrultusunda, derslerde hedeflenen amaçlara ulaşıldığını söylemek mümkündür.

Genel olarak, araştırmanın bulguları uygulama derslerinin önemini bir kere daha vurgulamıştır. Ancak, bu derslerin üniversitelerde nasıl yürütüleceği konusunda standartların belirlenmesine, bilgilendirme ve kurumsallaşma çalışmalarının başlatılmasına büyük yarar ve gereklilik bulunmaktadır.

*Anahtar sözcükler:* Bireyle psikolojik danışma uygulaması dersleri, bireyle psikolojik danışma uygulaması, süpervizyon, temel psikolojik danışma becerileri



## How Children's Interpersonal Cognitive Problem Solving Skills Change Through the Years

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### Abstract

*Problem Statement:* **Because of** innovations in science, technology, the media and changing lifestyles, the quality of education and the socio-cultural backgrounds of families play an important role in the problem-solving skills of children. How and to what extent negative or positive life experiences which are carried out by rapid changes through life would affect alternative problem solving thinking skills of children.

*Purpose of the Study:* This study aimed to assess whether or not the rapid changes and the progress in education affect the number of solutions related to the interpersonal problem-solving skills of children. The categories of the solution also were examined that children propose more socially accepted solutions with prosocial categories rather than those with violence categories.

*Methods:* Two different groups of participants were compared in this study. The sample of the first study conducted in 1994 consisted of 74 children (34 girls, 40 boys) who attended public preschools (Dinçer, 1995). The sample of the second study conducted in 2004 consisted of 56 children (26 girls, 30 boys) attending two private and public preschools (Anliak, 2004). The Preschool Interpersonal Problem Solving Test (Shure, 1992), which took 20-30 minutes to complete individually, was used by well-trained testers to evaluate the alternative thinking skills of children.

*Findings and Results:* The findings of the PIPS Test indicate that there was a significant increase in the number of categories and solutions proposed by children when compared to the findings of the first group, ten years ago.

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Although the numbers of solutions and categories concerning peer- and mother-related problems were high in total, it was observed that statistically there was not a significant increase in the total number of solutions concerning peer-related problems.

When the categories that the children used to solve interpersonal problems were examined, we observed that today's children use the categories of Loan and Physical Attack on Person for peer problems and the categories of Replace, Repair, Authority Aid, and Hide for mother-related problems.

*Conclusions and Recommendations:* These findings show that it would be beneficial to enrich preschool education in Turkey in terms of interpersonal cognitive problem-solving skills. In other words, preschool education programs need to be supported with activities that systematically help children to gain these skills.

**Keywords:** Interpersonal cognitive problem-solving skills, social skills, preschool, prevention.

The rapid transformation of the field of education has created a learning environment for children that they can actively explore rather than remain in a passive position where information is not mutually shared by both sides. Recently, issues like the physical features of the learning environment, its psychological dimension, and use of instructional technology have been emphasized in an attempt to construct a well-qualified, effective and interactive learning environment (Winter, 1999; Sönmez, 2001; Bunting, Li, Locke & Prakash, 2005). Using technology in a variety of educational contexts might lead to more productive and scientific instruction, accelerating the learning process as well (Helm & Katz, 2001; Winter, 1999; Kaya, 2005; Yalın, 2003; Oktay, 2005). Furthermore, an increase in the diversity of teaching materials ensures that teachers use more appropriate educational methods to meet the needs of individual children." Instruction is supported through visual/auditory educational tools, which get the attention of the children and increase their motivation (Winter, 1999; Kaya, 2005; Yalın, 2003).

Recent global advancements have emphasized the significance of early education beginning from the very first years of childhood and have expanded the duties and responsibilities of families (Oktay, 2005). Numerous families have been constantly struggling to maximize the learning capabilities and potentials of their children to keep up with 21st century educational techniques. These families have realized that when proper and supportive environments are offered, the individuals become more self-confident, actively engaging and problem solving, independent and successful.

Researchers have also shown that nurturing and supportive relationships between children and parents improve the social, emotional and psychological development of children (see Pianta, 1998, see Anderson, Christenson, Sinclair, and Lehr, 2004). It has been pointed out that early positive, close and supportive relationships are critical when it comes to dealing with problem situations and the acquisition of problem-solving skills (Pianta, 1998; Anderson et al., 2004; Anlık,

2004; DeJames, 2001). If children have close, secure and sensitive relationships with their parents, they probably display caring and sensitive attitudes towards peers or friends in the classroom. In this respect, it has been stated that children should be competent in their interactions with peers, by collaborating with others and solving and coping with problems in social and emotional contexts (Denham and Burton, 1996, 2003, Shure and Spivack, 1980, 1982, Shure, 2001a, b). However, it has been observed that some children could have difficulties in using and improving their social skills in their close relationships for various reasons. These kinds of negative experiences would probably be risk factors for the determinants of adaptation problems in terms of psycho-social development (Asher, 1978; Bloomquist and Schnell, 2002; Rogers & Ross, 1986; Howes, Hamilton, and Matheson, 1994). Adults should try to find effective ways of improving children's interpersonal problem-solving skills so as to allow the children to adapt to new social developments, especially today's relationship style (Shure & Spivack 1982; Spence, 2003, Demir, 2008). Children's problem-solving success would help to prevent frustration, aggression, anxiety and sadness, factors which often lead to various behavioral problems.

Societies hold advantageous positions when they have many opportunities in the technological and educational arena; however, the speed and permanency of these developments would possibly affect the future skills of children. These skills, as prerequisites for further success, include metacognitive thinking, socio-emotional and problem-solving skills that children constantly refer to when solving daily problems (Bingham, 1983; Genç & Senemoğlu, 1999; Shure, 2001a; b; Zembat & Unutkan, 2005). While information exchange has increased through technology, it can weaken interpersonal relationships (Çağlar, 2005). Lifestyles are becoming increasingly stressful and complicated, negatively affecting the social interactions of individuals. People encounter many challenges in different contexts each day; therefore, they have to adapt to changing relationships that they need to satisfy by using their interpersonal cognitive problem-solving skills. An individual's adaptation to daily changes can be easier if he/she realized the problems, evaluates the outcomes of possible alternative solutions, discovers the proper solution and uses it efficiently. The research supports the idea that these skills can be improved by their integration into educational settings beginning from as early as 4 years old and continuing throughout adulthood (Shure, Spivack & Jaeger 1971; Shure & Spivack, 1980; 1982; Shure, 1992; Erwin & Ruane, 1993; Erwin, 1994; Dinçer, 1995; Vestal, 2001; Spence, 2003; Anlak, 2004, Demir, 2008).

Adapting to rapid improvements and modifications (e.g. in education, technology, social relations) might be challenging and take some time for people in developing countries. Hence, these restrictions during the education process limit the self-development of individuals and reduce the quality of their lives. Although technology, science and education contribute to people's cultural and social lives, especially in societies that are not yet ready for other innovations, it is difficult to create a common ground for the adaptation of changes and to revise the values while protecting the social balances. Assimilation to contemporary culture and the

identification of new urban lifestyles and the existing cultural structure must take place gradually and systematically (Çağlar, 2005). Otherwise, deviations, disputes and instabilities are inevitable in the societies that are not ready for such social innovations (Sayar, 2006).

Turkey is among these countries experiencing rapid changes and advancements, an economic crisis, and income inequalities. Therefore, the majority of the society is trying to keep pace with the advancements and cope with the economic crisis while attempting to achieve high-quality living conditions. This may result in negative consequences within the society, including a decrease in desired family relationships. Thus, adults' negative attitudes toward solutions to problems within either the family or the society prevent them from establishing themselves as good examples for their children. It is important that children structure their social relationships first in the family and then reformulate their other relationships accordingly (Hennessy & Martin, 1992; Howes, Hamilton & Matheson, 1994; Wittmer & Honig, 1994; Dinçer & Güneysu, 1997; Hortaçsu, 2002).

Parents who are capable of finding the appropriate problem-solving methods, evaluating a range of social options and reflecting those in their behaviours will bring up children with problem-solving skills. In addition, children are exposed to violent behaviors and acts not only in their families; unfortunately, they are not offered a peaceful world either. Violence displayed in television programs, radios, newspapers, etc. (namely through the means of mass communication) undeniably affects the interpersonal problem-solving skills of children negatively. The increasing amount of violence and war scenes on television, video games and the Internet present children with non-peaceful images of the world. Insuring these scenes accelerates the reflection of violence onto our daily lives. High rates of television viewership in our country indicate that television increases the probability that children will imitate the aggressive behaviours they see, acting violently toward other children uncontrollably and unkindly.

Consequently, innovations in science, technology, the media and people's changing lifestyles as well as the attitudes of parents, the quality of education provided, the socio-cultural background of families and the society play an important role in children solving their problems constructively and developing better cognitive skills (Dinçer, 1995; Dinçer & Güneysu, 1997; Shure, 2001a;b, Demir, 2008). The purpose of this study is to show how and to what extent negative or positive life experiences of preschoolers' problem solving skills are affected by the last 10 years' developments in Turkey. For this reason, this research evaluates whether the rapid changes in science, technology, education and general social progress bring any changes to the number of solutions and the categories used by preschoolers for interpersonal problems they face in their lives. It was expected that the results of this study would reveal to what extent children would need any preventive programs in order to improve their problem-solving skills. It was also assumed that the content of the solutions, either social or aggressive, would be helpful for teachers who could figure out how children think about problems in

order to solve them; these teachers could have an opportunity to enrich current preschool program to support children's problem-solving skills.

## Method

### *Participants*

In the first study, carried out in 1994, 74 out of 130 5-year-old children formed the sample; in the second study, conducted in 2004, 56 children participated. The sample of the first study consisted of 74 children (34 girls, 40 boys) who attended public preschools (Dinçer, 1995). The sample of the second study consisted of 56 children (26 girls, 30 boys) attending two private and public preschools (Anliak, 2004). One limitation of this study is that we did not select the sample from schools with similar characteristics, instead choosing to include children from public and private preschools. However, although these schools seem to differ in their functions and the variety of their educational programs, all refer to the national curriculum managed by the Ministry of National Education (MONE). The program was revised in 2002 within the framework of new educational approaches, called the Preschool Educational General Directorate's Standard Studies (MEB, 2002), for 36-72 month-old children. Therefore, when this study was conducted at the public preschool in 1994, the ex-curriculum of MONE was in progress. It is assumed that data gathered from diverse schools (private, public) has affected the results of this research. Nonetheless, as these schools were then following a revised common curriculum, it was hypothesized to contribute to the variation between the interpersonal problem-solving skills of children through different periods.

In the 1994 curriculum of public preschools, teachers tended to use teacher-initiated instruction in their classes. In this respect, it might be assumed that this program did not meet the needs of children in terms of enhancing problem-solving skills since there was no systematic and/or organized use of these kinds of problem-solving prevention/intervention programs. Although both private and public preschools have carried out national preschool program basically, the private preschool school used in the 2004 sample has enriched its programs more by integrating the new national curriculum, the multiple intelligence theory, the project-based approach and other activities fostering creative thinking skills and focusing on interpersonal relationships. On the other hand, all of the participating schools in 1994 and 2004 had similar characteristics as they offered high-quality education and followed a common program. Because we selected schools that had integrated the enriched national curriculum, we were able to examine 20<sup>th</sup> century educational skills. Thus, the participating students in 2004 that were instructed in a child-initiated program and those in 1994 in a teacher-initiated program have been evaluated by comparing the level of interpersonal cognitive problem-solving skills, the number of solutions offered and their categories (aggressive or social solutions).

### *Research Instruments*

*Preschool Interpersonal Problem Solving Test (PIPS)* (Shure, 1992). This test has been developed to evaluate the alternative problem-solving skills of children. The test, which usually takes 20-30 minutes to complete, contains two parts related to children's peers as well as their mothers, and includes short stories which narrate the problems between two children of the same age and between a child and his/her mother. The first parts of the test were peer-related; in each story, it is stated that one of the children would like to play with the other child's toy ; every child in the class is asked to consider himself/herself as the main character in the story and then find ways to play with the toy. In the mother-related part of the test, it is narrated that the child in the story damages one of his/her mother's belongings; every child in the class supposes that she/he is the main character and is asked to think of possible solutions to prevent the mother from getting angry with her child.

The validity and reliability of the PIPS Test were tested by Shure and colleagues based on various studies. It has been clarified that the test can distinguish between children who behave differently from the standpoint of adaptive behaviors and indicate the differences at the end of the problem-solving training. The test-retest reliability of PIPS was found to be .72. Also, the percentage of total intercoder reliability was found to be 97%. The test-retest reliability was found to be .85 for the Turkish sample. Also, the percentage of intercoder reliability for the Turkish version has varied between 82% for the peer section and 99% for the mother section (Anlık, 2004).

#### **Procedure**

The test called the "Preschool Interpersonal Problem Solving Test - PIPS", prepared by Shure (1992), was used to determine whether or not the intervening ten years had brought any changes to the problem-solving process of children. The location of the test needed to be prepared prior to the test administration. Before the pretest, participants were introduced to the classroom where they were going to be tested and informed about the procedure. The tests took 20-30 minutes to complete in a silent room, outside the regular classroom. Children were tested by educators and a psychologist who was also a well-trained PIPS tester.

## **Findings and Results**

### *Total Numbers of Solutions and Categories Concerning Peer- and Mother-Related Problems*

The present study was conducted to determine if the interpersonal cognitive problem-solving skills of 5-year-olds create a significant difference in the categories used in problem situations and in the number of solutions during the past ten years. When the averages of the numbers of solutions and categories that they used for peer- and mother-related problems were compared in the PIPS Test of the 1994 and the 2004 groups, it was determined that there was a significant difference in the total solution numbers concerning peer- and mother-related problems between the groups ( $t=2.082$   $p<0.05$ ). It was observed that the total number of solutions in the 2004 group was higher than that of the 1994 group and the number of categories used for peer-

and mother-related problems was significantly different in both groups; additionally, the group from 2004 used more categories than the group from 1994 ( $t=3.059$   $p<0.05$ ) (see Table 1). In other words, it was observed that five-year-old children instructed by the new national program, based on the current conditions and needs, produced more solutions within different categories than those instructed ten years ago.

**Table 1**

*Averages of the Numbers of Solutions and Categories Used Concerning Peer- and Mother-Related Problems*

	Year	N	$\bar{X}$	SD	t	df	p
Total solution number - peer and mother problems	1994	74	5.973	2.993	2.082*	128	.039
	2004	56	7.089	3.070			
Total category number - peer and mother problems	1994	74	4.864	2.360	3.059*	128	.003
	2004	56	6.214	2.654			
Solution number - peer problems	1994	74	3.135	1.698	1.706	128	.090
	2004	56	3.660	1.791			
Solution number - mother problems	1994	74	2.837	1.767	1.957*	128	.052
	2004	56	3.464	1.858			
Category number - peer problems	1994	74	2.675	1.366	2.251*	128	.026
	2004	56	3.214	1.331			
Category number - mother problems	1994	74	2.189	1.420	2.881*	128	.005
	2004	56	2.964				

\* $p<0.05$

When these findings obtained from the PIPS Test were examined in-depth according to numbers of solutions for peer-related problems, for mother-related problems, the numbers of categories for peer-related problems and for mother-related problems, we were able to figure out how the results can be interpreted. It could be possible to discover at which points children's needs should be supported more in order to improve those skills.

*Numbers of solutions concerning peer-related problems.* The numbers of solutions of the two groups concerning peer-related problems were not found to be significantly

different from each other ( $t=1.706$   $p>0.05$ ) (see Table 1). In other words, the numbers of solutions to peer problems were not found to be significantly different between the years.

*Numbers of solutions concerning mother-related problems.* When the total solution numbers of the two groups were compared concerning mother-related problems, we observed that there was a statistically significant difference ( $t=1.957$   $p<0.05$ ) and that the 2004 group found more solutions than the 1994 group (see Table 1).

*Category number concerning peer-related problems.* The 2004 group used more categories than the 1994 group concerning peer-related problems ( $t=2.251$   $p<0.05$ ) (see Table 1).

*Category number concerning mother-related problems.* It was determined that the 2004 group used more categories than the 1994 group concerning mother-related problems ( $t=2.881$   $p<0.05$ ) (see Table 1).

The examination of the averages of the categories used by the two groups concerning peer- and mother-related problems was used in order to assess the categories of the solutions (social-aggressive) found by children over 10 years.

When we examined the averages of the categories used for peer-related problems, we found that the 2004 group seemed to use the Loan and Physical Attack on Person categories more than the 1994 group. It was also determined that the 2004 group's category scores for the Loan category were significantly different from those in the 1994 group ( $t=2.357$   $p<0.05$ ). Additionally, the 2004 group's category scores for the Physical Attack on Person category were higher than those of the 1994 group ( $t=2.726$   $p<0.05$ ). The 2004 group used the categories of Tricks, Wait, Plan for Future, Force-Grab and Command more than the 1994 group, although there was no statistically significant difference between the two groups ( $p>0.05$ ) (see Table 2).



**Table 2**  
*Averages of Categories Concerning Peer-Related Problems*

Peer Related							
Problem Categories	Year	N	$\bar{X}$	SD	t	df	p
Ask	1994	74	0.905	0.294	1.098	128	0.275
	2004	56	0.839	0.370			
Please	1994	74	0.094	0.294	0.467	128	0.641
	2004	56	0.071	0.259			
Loan	1994	74	0.121	0.329	2.357*	128	0.021
	2004	56	0.303	0.501			
Fair, Share, Turns	1994	74	0.918	0.975	0.160	128	0.873
	2004	56	0.892	0.845			
Trade-Bribe	1994	74	0.202	0.618	0.243	128	0.808
	2004	56	0.178	0.471			
Authority Intervention	1994	74	0.229	0.423	0.708	128	0.480
	2004	56	0.178	0.386			
Trick	1994	74	0.027	0.163	0.775	128	0.440
	2004	56	0.053	0.227			
Finagle	1994	74	0.094	0.294	0.094	128	0.925
	2004	56	0.089	0.345			
Manipulate Affect	1994	74	0.108	0.312	0.017	128	0.986
	2004	56	0.107	0.312			
Wait	1994	74	0.094	0.294	1.602	128	0.113
	2004	56	0.196	0.400			
Plan for Future	1994	74	0.094	0.294	1.098	128	0.275
	2004	56	0.160	0.370			
Force-Grab	1994	74	0.216	0.476	0.184	128	0.854
	2004	56	0.232	0.504			
Physical Attack on Person	1994	74	0.027	0.163	2.726*	128	0.008
	2004	56	0.214	0.494			
Command	1994	74	0.000	0.000	1.000	128	0.322
	2004	56	0.017	0.133			

\*p<0.05

When Table 3, presenting the distribution of categories used for mother-related problems by the two groups, was examined, significant differences between the groups were found in the categories of Replace, Repair, Authority Aid and Hide It. In these four categories, the values were: Replace ( $t=2.497$   $p<0.05$ ), Repair ( $t=3.132$   $p<0.05$ ), Authority Aid ( $t=2.420$   $p<0.05$ ) and Hide It ( $t=3.311$   $p<0.05$ ). It was observed that the related category scores of the 2004 group were significantly higher than those of the 1994 group, and the 2004 group suggested more solutions than the 1994 group using these categories more. Although there was not a statistically significant difference between the two groups concerning the categories of Finagle and Clean Up-Throw Away, both of which were among the categories used for mother-related problems ( $p>0.05$ ), it was determined that the 2004 group suggested solutions using these categories more than the earlier group (see Table 3).

**Table 3**  
*Averages of Categories Concerning Mother-Related Problems*

Mother-Related Problem Categories	Year	N	$\bar{X}$	SS	t	sd	p																																																																																																																				
Replace	1994	74	0.135	0.344	2.497*	128	0.014																																																																																																																				
	2004	56	0.321	0.471				Repair	1994	74	0.202	0.404	3.132*	126	0.002	2004	56	0.463	0.503	Authority Aid	1994	74	0.108	0.312	2.420*	125	0.018	2004	56	0.283	0.454	Apology-Truth	1994	74	1.256	0.922	0.882	128	0.380	2004	56	1.107	1.003	Blame Other-Lie Deny	1994	74	0.121	0.329	0.585	128	0.559	2004	56	0,089	0.287	Don't Be Mad	1994	74	0.256	0.439	0.804	128	0.423	2004	56	0.196	0.400	Manipulate Affect	1994	74	0.432	0.777	0.317	128	0.752	2004	56	0.392	0.593	Finagle	1994	74	0,027	0.163	1.789	128	0.078	2004	56	0.125	0.384	Hide	1994	74	0.229	0.423	0.708	128	0.480	2004	56	0.178	0.386	Hide It	1994	74	0,013	0.116	3.311*	128	0.002	2004	56	0.196	0.400	Clean Up- Throw Away	1994	74	0,054	0.227	1,075	128	0.285
Repair	1994	74	0.202	0.404	3.132*	126	0.002																																																																																																																				
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\*p<0.05

### Conclusions and Recommendations

In this study, the findings of the PIPS Test illustrate that there was a significant increase in the number of children's suggestions for categories and solutions compared to the statistics of ten years ago. Various effective factors underlying this significant difference come into play. The most essential factor affecting the increase in the numbers of categories and solutions appears to be related to the efforts of preschools to utilize innovations and follow an up-to-date common program. In addition, factors such as being aware of the significance of the preschool period in a child's life, raising parents', teachers' and society's awareness of childcare and education, increasing the amount of stimulating materials such as television and newspapers, and reaching a much higher level of preschool education through scientific studies are considered to be other important factors.

In this study, which found that children produced more solutions than they produced ten years ago, it was observed that statistically there was not a significant increase in the total number of solutions concerning peer-related problems, although the numbers of solutions and categories concerning peer- and mother-related problems were high in total. This finding reveals that preschool curriculum needs to be enriched and combined with preventive programs to improve children's education more systematically. Preschools, where children both interact and communicate with their peers and also come together for activities, provide a natural environment for interpersonal problems to occur (Çağdaş & Seçer, 2002; Asher & Papuette, 2003). In this respect, the basis of preschool educational programmes should be supported by activities that aim to encourage children to be higher thinkers when it comes to social problems (Shure & Spivack, 1980, 1982; Bingham, 1983; Honig & Wittmer, 1996; Özusta, 1998; Shure, 2001a, Deveci, Yılmaz & Karadağ, 2008).

The literature supports the idea that children's alternative problem-solving skills have been developed in the institutions where preschooling had integrated preventive programs (Shure & Spivack; 1980; 1982, Erwin & Ruane; 1993, Shure, 1992; Dinçer & Güneysu, 1997 Anliak, 2004; Deveci, Yılmaz & Karadağ, 2008 ). If programs building upon at least one of those skills have been implemented systematically and regularly in participating preschools, both solution and category numbers would probably have reached the desired level. Therefore, teachers should build activities based on preschool preventive programs to deal with class problems and allocate time for improving the problem-solving skills of children. Therefore, these findings show that it will be beneficial to enrich preschool education in our country to improve children's interpersonal cognitive problem-solving skills. In other words, preschool education programs need to be supplemented with activities helping children to gain cognitive problem-solving skills associated with healthy human relationships. One of the targets of preschool educational institutions must be to not only improve academic success but also to continue to socialize the individuals who already have social and interpersonal problem-solving skills.

In addition, when the solution categories concerning peer- and mother-related problems are assessed in order to compare them, it becomes clear that a multidimensional educational program for the development of interpersonal cognitive problem-solving skills in preschool education is needed. When the categories concerning peer-related problems of the two groups were examined, it was found that there was a statistically significant difference in the categories of Loan and Physical Attack on Person. It was observed that today's children (the group from 2004) suggested more solutions concerning the category of Loan when faced with interpersonal problems than the group from 1994. They prefer thinking of solutions within social categories such as Loan in peer-related problems. This finding with social categories and correspondingly, with aggressive categories on the other hand have been observed to increase. In other words, a surprising and noticeable finding was that there was an increase in the number of aggressive solutions which appear in the Physical Attack on Person category. One of these solutions features an unaggressive social solution (Ask) while the other solution involves violence, namely physically harming the other individual. In addition, the categories using anti-social solutions, such as Tricks, Finagle, Force-Grab, Command, support the conclusion that these are being referred to more often than they were 10 years ago. In this study, it was expected that well-educated children would propose more socially-acceptable solutions within prosocial categories rather than within aggressive categories. In other words, it is believed that solutions within social categories (ask, fair, share, turns, manipulate affect, etc.) would increase along with living conditions, high-quality education, etc. However, this finding reveals that the education system must be enriched with communication skills, social skills, and interpersonal cognitive problem-solving skills. For this reason, the education children receive in their childhood is of great importance in regards to how they cope with their conflicts and feelings of anger and in how they learn to solve problems without hurting other people. Children are supposed to have certain ideas and behaviors in their repertoire, including primarily, politeness and cooperation to manage and solve their problems using more positive and social behaviors (Spence, 2003).

In addition to the above-mentioned findings, when the categories of mother-related problems were examined, some contradictory findings were identified. When the categories that the children suggested in this study for mother-related problems were assessed, it was found that children in the 2004 group produced more ideas than the children in the 1994 group in terms of how to solve the problems in a more social and harmonious way (Replace, Repair, Authority Aid). However, a significant increase in the averages of the 2004 group compared to those of the 1994 group in the Hide It category is considered to be a finding that requires attention and further study. In addition, today's children's use of solutions including the Finagle and Clean Up-Throw Away categories can be explained by their tendency to solve their problems by dishonest means. An examination of the categories shows that children have not defined an honest and clear approach. The participants of this study might have proposed more responses within social categories in the mother-related solution categories (manipulate affect, apology-truth, etc.).

In accordance with the socio-economic conditions, the gradual enlargement of the nuclear family structure, an increase in the number of working mothers, violent incidents in both the media and family and so on, the need for educational institutions that provide various facilities to support children's personal and social development in addition to their academic success has increased (Zembat & Unutkan, 1999; Çağdaş & Seçer, 2002). Hence, with the aim of developing alternative solutions to the problems they encounter and gaining the problem-solving skills which are critical for life, it is necessary for various educational programs to be carried out both within the family and in preschool educational institutions. For this reason, it is important to enhance educational programs with regard to interpersonal problem-solving skills by determining new strategies suitable for the ever-changing daily conditions in the field of education (Anlıak & Dinçer, 2005 a;b; Özusta, 1998; Greenberg, Domitrovich & Bumbarger, 2001; Dinçer & Güneysu, 2001).

Multidimensional intervention programs must be used in order to help students develop suitable solutions in managing problems occurring among their friends and to teach them how to show their anger without hurting their peers. Children's ability to solve their problems skillfully can positively impact their future careers, the development of close relationships with friends, and most importantly to an improvement in the well-being of the individual. Erwin (1994), one of the researchers suggesting a multidimensional educational model, points out that social skills training has led to significant improvements in children's social interactions, social status and cognitive problem-solving skills regardless of the techniques used. The purpose of this study is to compare the efficiency levels of three different social skill training programs (coaching, modelling and interpersonal cognitive problem solving). According to the findings, no technique was better than the others in terms of improving the social skills of children.

Enhancing preschool educational programs by integrating social skills and interpersonal cognitive problem-solving skills programs would increase the quality of education. Additionally, it has been frequently emphasized that not only training children and teachers but also training parents is highly recommended in order to improve those skills effectively (Bloomquist ve Schnell, 2002; Webstern- Stratton ve Reid, 2008; Reid, K., Littlefield, L., & Hammond, S.W. ,2008, Shure, 2001a).

## References

- Anderson, A.R., Christenson, S.L., Sinclair, M.F., & Lehr, C.A. (2004). Check & connect: The importance of relationships for promoting engagement with school. *Journal of School Psychology, 42*, 95 - 113.
- Anlıak, Ş. (2004). *Farklı eğitim yaklaşımları uygulayan okul öncesi eğitim kurumlarında kişiler arası bilişsel problem çözme becerisi programının etkisinin incelenmesi* [The effects of interpersonal cognitive problem solving program in preschools using different education approaches]. Published doctoral dissertation, Ege Üniversitesi Sosyal Bilimler Enstitüsü, İzmir.

- Anlak, Ş. & Dinçer, Ç. (2005a). Farklı eğitim yaklaşımları uygulayan okul öncesi eğitim kurumlarına devam eden çocukların kişiler arası problem çözme becerilerinin değerlendirilmesi [Examining interpersonal problem skills of preschool children in preschool using different kind of methods]. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, 38, (1), 149-166.
- Anlak, Ş. & Dinçer, Ç. (2005b). Developing interpersonal cognitive problem solving skills in preschool period, *Eurasian Journal of Educational Research*, 5 (20), 122-134.
- Asher, S. R. (1978). Children's peer relations. In Lamb (Ed.), *Social and Personality Development*, Winston: Halt and Rinehart.
- Asher, S. R., & Papuette J.A. (2003) Loneliness and peer relations in childhood. *Current Directions in Psychological Science*, 12 (3), 75-78.
- Bingham, A. (1983). *Çocuklarda problem çözme yeteneklerinin geliştirilmesi* [Improving problem solving skills of children]. F. Oğuzkan (Trans.), İstanbul: MEB Basımevi.
- Bloomquist, M. L & Schnell, S.V. (2002). Helping children with aggression and conduct problems. New York: The Guilford Pres.
- Bunting, A., Li, P.P., Locke, J., & Prakash, N. (2005). Creating 21 st. century learning environments, *PEB Exchange*, 55, 15-26.
- Çağdaş, A., & Seçer, Z. (2002). *Çocuk ve ergende sosyal ve ahlak gelişimi* [Social and moral development in early childhood and adolescents]. R. Arı. (Ed.). Ankara: Nobel Yayın Dağıtım.
- Çağlar, A. (2005). Okul öncesi dönemde değerler eğitimi [Teaching values in preschool period]. In *Gelişim ve eğitimde yeni yaklaşımlar* [New approaches in development and education].(pp. 304- 310). İstanbul: Morpa Kültür Yayınları Ltd. Şti.
- Demir, M.K. (2008). 2005 Social studies curriculum's effects on student's critical thinking skills. *Eurasian Journal of Educational Research*, 33, 113- 126.
- Denham, S.A. & Burton, R. (1996). A socio-emotional intervention for at-risk 4-year-olds. *Journal of School Psychology*, 34 (3), 225 - 245.
- Denham, S.A. & Burton, R. (2003). *Social and emotional prevention and intervention programming for preschoolers*. New York: Kluwer Academic/Plenum Publishers.
- DeJames, P.L. (2001). Effective parent/teacher/child relationships. *Education*, 102 (1), 34 - 36.
- Deveci, H. , Yılmaz, F., & Karadağ, R. (2008) Pre-service teachers' perceptions of peace education . *Eurasian Journal of Educational Research*, 30, 63- 80.
- Dinçer, Ç. (1995). *Anaokuluna devam eden 5 yaş grubu çocuklarına kişiler arası problem çözme becerilerinin kazandırılmasında eğitimin etkisinin incelenmesi* [Examining the effects of problem solving training on the acquisition of interpersonal

problem solving skills by 5 years old children]. Published doctoral dissertation, Hacettepe Üniversitesi Sağlık Bilimleri Enstitüsü, Ankara.

- Dinçer, Ç. & Güneysu, S. (1997). Examining the effects of problem solving training on the acquisition of interpersonal problem solving skills by 5 years old children in Turkey, *International Journal of Early Years Education*, 5 (1), 37- 46.
- Dinçer, Ç. & Güneysu, S. (2001). Examining the permanence of problem solving training given for the acquisition of interpersonal problem solving skills, *International Journal of Early Years Education*, 9 (3), 207- 219.
- Erwin, P. G., & Ruane, G. E. (1993). The effects of a short- term social problem solving programme with children, *Counseling Psychology Quarterly*, 6(4), 35- 50.
- Erwin, P. G. (1994). Effectiveness of social skills training with children: a meta analytic study (1), *Counselling Psychology Quarterly*, 7(3), 1- 6.
- Helm, J. H. & Katz, L. G. (2001). *Young investigators: The projects approach in the early years*, Teachers College Press, Columbia.
- Hennessy, E., & Martin, S. (1992). *Children and day care*. London: Paul Chapman Publishing Ltd.
- Honig, A. S. ve Wittmer, D.S. (1996). Helping children became more prosocial: ideas for classrooms, families, schools, and communities. *Young Children*. 51(2), 62- 70.
- Hortaçsu, N. (2002). *Çocuklukta ilişkiler: Ana-baba, kardeş ve arkadaşlar* [Relationships in early childhood period: mother-father, sibling and friends]. Ankara: İmge Yayınevi.
- Howes, C., Hamilton, C. E., & Matheson, C. C. (1994). Children's relationships with peers: differential associations with aspects of the teacher-child relationship, *Child Development*, 65, 253- 263.
- Genç, Ş. & Senemoğlu, N. (1999). Okul öncesi eğitim [Early childhood education, In *İlk öğretimde etkili öğretme ve öğrenme elkitabı* (Modül 12) [Effective teaching and learning in primary school handbook (Modül 12)], İstanbul: MEB Basımevi.
- Greenberg, M. T, Domitrovich, C., & Bumbarger, B. (2001). The prevention of mental disorders in school- aged children: Current state of the field. *American Psychological Association*. Retrieved April 23 2005 from <http://journals.apa.org/prevention/volume4/pre0040001>
- Kaya, Z. (2005). *Öğretim teknolojileri ve materyal geliştirme* [Teaching technology and developing material]. Pegem A Yayıncılık Tic. Ltd. Şti., Ankara.
- Oktay, A., (2005). 21. Yüzyıla girerken dünyada yaşanan değişimler ve erken çocukluk eğitimi [The changes in the world and early childhood education in 21. th century]. In *Gelişim ve eğitimde yeni yaklaşımlar* [New perspectives in development and education] (18-30). İstanbul: Morpa Kültür Yayınları Ltd. Şti.

- Özusta, Ş. (1998). Çocuklarda problem çözme becerileri eğitimi [Training problem solving skills on children], *Türk Psikoloji Yazıları*, 1, (1), 73-80.
- Pianta, R.C. (1998). *Enhancing relationships between children and teachers*. Washington, DC: American Psychological Association.
- Reid, K., Littlefield, L., & Hammond, S.W. (2008). Early intervention for preschoolers with behavior problems: Preliminary findings for the Exploring Together Preschool Program. *Australian e-Journal for the Advancement of Mental Health*, 7(1), 1 - 15.
- Rogers, D.L. ve Ross, D.D. (1986). Encouraging positive social interaction among young children. *Young Children.*, 41(3), 13-17.
- Sayar, Ö. Ö. (31 Ocak 2006). [http:// saglik.tr.net/ ruh\\_sagligi\\_genclik\\_siddet\\_1.shtml](http://saglik.tr.net/ruh_sagligi_genclik_siddet_1.shtml)
- Shure, M. B., Spivack, G., & Jaeger, M. (1971). Problem solving thinking and adjustment among disadvantaged preschool children, *Child Development*, 42, 1791- 1803.
- Shure, M. B., & Spivack, G. (1980). Interpersonal problem solving as a mediator of behavioral adjustment in preschool and kindergarden children, *Journal of Applied Developmental Psychology*, 1, 29- 44.
- Shure, M. B., & Spivack, G. (1982). Interpersonal problem-solving in young children: a cognitive approach to prevention, *American Journal of Community Psychology*, 10(3), 341- 356.
- Shure, M. B. (1992). *The PIPS test. manual for 4 to 6 year old children* (2nd ed.). Philadelphia: Hahneman University, Department of Mental Health Sciences.
- Shure, M. B. (2001a). *I can problem solve (An interpersonal cognitive problem-solving program) (ICPS)*. Illinois: Research Press.
- Shure, M. B. (2001b). What's right with prevention? Commentary on "prevention of mental disorders in school- aged children: Current state of the field, *Prevention and Treatment*. Retrieved May 23 2005 from <http://journals.apa.org/prevention/volume4/pre0040001a.html>
- Spence, S. H. (2003). Social skills training with children and young people: theory, evidence and practice, *Child and Adolescent Mental Health*, 8 (2), 84-96.
- Sönmez, V. (2001). *Öğretmen el kitabı* [Teacher handbook]. Anı Yayıncılık.
- T.C. Milli Eğitim Bakanlığı Talim ve Terbiye Kurulu Başkanlığı [Turkish republic the ministry of national education] (2002) 36- 72 aylık çocuklar için okul öncesi eğitimi programı [Preschool education program for 36-72 months old children]. Author.
- Vestal, M. A. (2001). *How teacher training in conflict resolution and peace education influences relationships and interactions in Head Start Center*, Doctoral dissertation, Nova Southeastern University, *Dissertation Abstracts International*, AAT3003729.



- Webster-Stratton, C., & Reid, J. (n.d.) The incredible years classroom management teacher training program: content, methods, and process. Retrieved July 24, 2008 from <http://www.son.washington.edu/centers/parenting-clinic/opendocs/teachertrainingprogram.pdf>
- Winter, S. M. (1999). The early childhood inclusion model a program for all children, Association for Childhood Education International, Olney.
- Wittmer, D. S., & Honig, A. S. (1994). Encouraging positive social development in young children, *Young Children*, 49 (5), 4-12.
- Yalın, H. I. (2003). Öğretim teknolojileri ve materyal geliştirme [Teaching technology and developing material]. Nobel Yayın DağıtımTic. Ltd. Şti., Ankara.
- Zembat, R. & Unutkan, Ö. (1999). *Okulöncesinde çocuğun sosyal gelişiminde aile katılımının önemi örnekleri* [The importance of family participation on social development in preschool], in *Marmara Üniversitesi anaokulu/anasınıfı öğretmeni el kitabı*. İstanbul: Yapa Yayınları.
- Zembat, R. & Unutkan, Ö. P. (2005). *Problem çözme becerilerinin gelişimi*. [Development of problem solving skills] in *Gelişim ve eğitimde yeni yaklaşımlar* [New perspectives in development and education] (pp. 221-229). İstanbul: Morpa Kültür Yayınları Ltd. Şti.

## **Çocukların Kişiler Arası Bilişsel Problem Çözme Becerileri Zaman İçerisinde Nasıl Bir Değişim Gösteriyor**

### **(Özet)**

*Problem Durumu:* Günümüzde eğitimde yeni yaklaşımları takip eden okul öncesi eğitim programlarında, çocuklarda bilimsel ve etkili düşünme, yaşam boyu öğrenme isteği, etkili kişiler arası ilişkiler kurabilme, problem çözme gibi çeşitli niteliklerin kazandırılmasının önemi vurgulanmaktadır. Sosyal becerilerin daha sonraki akademik başarılarında önemli bir belirleyici olduğu görüşünü benimseyen eğitim yaklaşımlarında, etkili sosyal ve kişiler arası problem çözme becerilerinin, entellektüel becerilerle ilişkili olduğu düşünülmektedir. Dolayısıyla okul öncesi eğitim kurumlarının çocukların sadece akademik başarılarının gelişmesini desteklemedikleri aynı zamanda sosyal ve kişiler arası problemlerini çözebilen bireyler yetiştirmeyi de hedeflerinin arasına alarak çok boyutlu eğitim programlarıyla okul öncesi eğitim programlarını zenginleştirdikleri gözlenmektedir. Türkiye’de okul öncesi eğitim kurumları incelendiğinde, kişiler arası problem çözme becerilerini geliştirebilecek çok yönlü eğitim programlarının sınırlı düzeyde uygulandığı görülmektedir. Okul öncesi eğitim programlarında çocuklarda bu beceriyi geliştirebilecek çeşitli etkinlikler gerçekleştirilmesine rağmen bu becerilere yönelik programlara

ihtiyaç duyulmaktadır. Bu bağlamda, Türkiye’de kişiler arası problem çözme becerilerine ilişkin çok yönlü eğitim programlarının geliştirilerek etkililik düzeylerinin ve yeterliliklerinin saptanması ya da değerlendirilmesi gerekmektedir. Bu nedenle, sürekli değişen günümüz koşullarına uyum sağlamada belirleyici rolü olan kişiler arası problem çözme becerileri açısından okul öncesi eğitim alanında da yeni stratejiler ve yöntemler belirlenmesine, önleyici ve müdahale edici programların zenginleştirilmesine ihtiyaç duyulmaktadır.

*Araştırmanın Amacı:* Günümüzde giderek yaygınlaşmakta ve gelişmekte olan okul öncesi eğitim kurumlarında çocuklarda bu becerilerin gelişebilmesi amacıyla çeşitli etkinlikler gerçekleştirilmektedir. Çocukları çok yönlü geliştirmesi beklenen çağdaş eğitim yaklaşımlarının, çocukların kişiler arası bilişsel problem çözme becerileri üzerindeki etkilerinin araştırmalar kapsamında değerlendirilmesi gerekmektedir. Bu noktadan hareketle yürütülen bu çalışmanın amacı, yaşamın ve eğitimin getirdiği hızlı değişim ve gelişmelerin, okul öncesi dönem çocuklarının yaşamlarında karşılaştıkları kişiler arası problemlere yönelik ürettikleri çözüm sayılarında ve kullandıkları kategorilerde farklılaşmaya yol açıp açmadığını değerlendirmektir.

*Araştırmanın Yöntemi:* Bu karşılaştırmalı çalışmada 5 yaş grubunda iki farklı grupla çalışılmıştır. Örneklem grubunu oluşturan ilk çalışma 1994 yılında, ikinci çalışma ise 2004 yılında yapılmıştır. Birinci çalışmanın örnekleme, resmi kurumlara bağlı anaokullarına devam eden 34’ü kız 40’i erkek olmak üzere toplam 74 çocuktan oluşurken, ikinci çalışmanın örnekleme ise özel ve resmi kurumlara bağlı iki anaokuluna devam etmekte olan 26’sı kız 30’u erkek toplam 56 çocuktan oluşmaktadır. Çalışmada, aradan geçen on yıllık sürenin problem çözme sürecinde bir değişiklik yaratıp yaratmadığını değerlendirmek amacıyla Shure (1992) tarafından geliştirilmiş, orijinal adı “Preschool Interpersonal Problem Solving Test - PIPS” olan Okul Öncesi Kişiler Arası Problem Çözme (OKPÇ) Testi, örnekleme alınan tüm çocuklara bireysel olarak uygulanmıştır.

*Araştırmanın Bulguları:* Bu amaç doğrultusunda araştırmada, kişiler arası problem çözme becerileri eğitiminin (Interpersonal Cognitive Problem Solving Program), 5 yaş grubu çocuklar üzerindeki etkisinin incelendiği 1994 ve 2004 yıllarında yapılan iki farklı araştırmadan elde edilen bulgular karşılaştırılmıştır. Araştırma sonucunda aradan geçen on yıllık süreçte günümüz çocuklarının kişiler arası ilişkilerinde ortaya çıkan problemler için ürettikleri çözüm sayılarında artış olduğu saptanmıştır. OKPÇ Testinde, çocukların akran problem ve anne problem durumlarına ilişkin ürettikleri çözüm sayılarının ve kullandıkları kategori sayılarının ortalamaları karşılaştırıldığında, gruplar arasında, akran problem ve anne problem durumlarıyla ilgili üretilen toplam çözüm sayılarında anlamlı bir fark olduğu bulunmuştur. Her iki grubun akran problem ve anne problem durumunda kullandıkları kategori sayılarının da anlamlı düzeyde farklılaştığı, günümüz çocuklarının daha fazla sayıda kategori kullandığı

bulunmuştur. Diğer bir deyişle günümüzde eğitim almakta olan 5 yaş grubu çocuklarının 10 yıl önce eğitim alan 5 yaş grubu çocuklarına göre daha fazla sayıda ve farklı içerikte çözümler ürettikleri gözlenmiştir. Ancak OKPÇ Testi'nden elde edilen bu bulgu; akran problem durumu çözüm sayısı ve anne problem durumu çözüm sayısı, olarak ayrı ayrı daha detaylı bir şekilde değerlendirildiğinde; her iki grubun anne problemlerine ilişkin ürettikleri toplam çözüm sayılarında anlamlı bir fark saptanırken akran problemlerine ilişkin ürettikleri toplam çözüm sayılarında, anlamlı bir farklılık gözlenmemiştir.

Yıllar içerisinde çocukların problem çözme durumunda hangi içerikte (sosyal - saldırgan) çözümler önerdiklerinin değerlendirilmesi amacıyla her iki grubun akran ve anne ile ilgili problem durumunda kullandıkları kategorilerin ortalamalarından elde edilen bulgular incelendiğinde ise; her iki grubun akranla ilgili problem durumunda kullandıkları kategorilerin ortalamalarına bakıldığında, Ödünç Alma ve Fiziksel Zarar kategorilerinde, günümüz çocuklarının, bu kategorileri daha fazla kullandıkları saptanmıştır. Ayrıca Hile, Bekleme, Gelecek İçin Plan Yapma, Zor Kullanarak Alma, Emir Verme kategorilerinde iki grup arasında istatistiksel olarak anlamlı bir fark olmamakla birlikte günümüz çocuklarının çözümlerinin bu kategorilerden geldiği saptanmıştır. Her iki grubun anne ile ilgili problem durumunda kullandıkları kategorilerin dağılımı incelendiğinde ise dört farklı kategoride; Yerine Koyma, Tamir Etme, Otorite Yardım ve Saklama kategorilerinde gruplar arasında anlamlı farklılaşmaların olduğu bulunmuştur. Günümüz çocuklarının sözü edilen kategorileri kullanarak daha fazla çözüm önerisinde buldukları gözlenmiştir. Anne problemlerine ilişkin kullanılan kategoriler arasında yer alan Kandırma ve Temizlemek-Atmak kategorilerinde, iki grup arasında istatistiksel olarak anlamlı bir fark olmamakla birlikte günümüz çocuklarının bu kategorileri daha fazla kullanarak çözümler önerdikleri de belirlenmiştir.

*Araştırmanın Sonuçları ve Önerileri:* Bu çalışmadan elde edilen bulgulara göre, çocukların günlük yaşantılarında karşılaşabilecekleri kişiler arası problemleri çözerken kullandıkları çözüm ve kategori sayılarında on yıl öncesine kıyasla önemli bir artışın olduğu gözlenmiştir. Bu anlamlı farklılaşmanın altında yatan çeşitli faktörlerden söz edilebilir. Çocuğun yaşamında okul öncesi dönemin öneminin giderek daha fazla anlaşılması, uzmanlar tarafından, toplumun, ebeveynlerin ve öğretmenlerin çocuk bakımı ve eğitimi konusunda bilinçlendirilmesi, televizyon, gazete, dergi v.b uyaranların sayılarında artış olması, bilimsel çalışmalar doğrultusunda okul öncesi dönem eğitiminin niteliksel olarak daha iyi bir düzeye ulaştırılması gibi faktörlerin bu farklılaşmada etkili temel nedenler arasında yer aldığı düşünülmektedir. Günümüz çocuklarının on yıl öncesine kıyasla daha fazla çözüm ürettiği belirlenen bu çalışmada, elde edilen genel toplamdaki akran ve anne problem durumlarına ilişkin çözüm ve kategori sayıları yüksek olmasına rağmen akran problem durumu

toplam çözüm sayısı açısından sonuçlar değerlendirildiğinde, okul öncesi dönemde ülkemizde verilen eğitimin, kişiler arası bilişsel problem çözme becerileri yönünden zenginleştirilmesi gerekliliğini ortaya koymaktadır. Sınıf içi etkinlikler kapsamında; çocukların alternatif problem çözme düşünme becerisini geliştirebileceği çeşitli müdahale programlarının bütünleştirilerek düzenli bir şekilde uygulanması, karşılaşılan değişik problemlerin iyi birer fırsat olarak değerlendirilmesi, değişik çözüm önerilerinin çocuklarla birlikte sınırlanarak problemlerin farklı yollar ile çözülmesi gerekmektedir. Diğer bir deyişle okul öncesi eğitim programları, sağlıklı insan ilişkilerinin gelişmesine dayalı kişiler arası bilişsel problem çözme becerilerini kazandıracak etkinlikler ile zenginleştirilmelidir.

Yıllar içerisinde ekranlarıyla ilgili problem durumlarında Ödünç Alma gibi sosyal içerikli çözümler düşünmeyi daha fazla tercih etmelerinin yanı sıra çarpıcı ve değerli diğer bir bulguya göre, saldırgan çözümlere yönelik kategorilerden biri olan Fiziksel Zarar kategorisinde yer alan saldırgan çözümlerin sayısında da bir artış olduğu saptanmıştır. Ayrıca, Hile, Zor Kullanarak Alma, Emir Verme gibi sosyal olmayan çözümleri içeren kategorilerin de günümüz çocuklarında on yıl öncesine nazaran biraz daha fazla kullanılmış olması bu bulguyu destekler niteliktedir. Günümüz çocuklarının sosyal ve saldırgan içerikli kategorilere yönelik ürettikleri çözüm önerilerinin ayrıntılı bir şekilde daha fazla denek kullanılarak değerlendirilmesi durumunda daha açık öngörülerde bulunulabileceği düşünülmektedir. Ancak elde edilen bu bulgu, kişilerarası problem çözme becerilerinin geliştirilmesi açısından eğitim sisteminin yeniden gözden geçirilmesi gerektiği düşüncesini pekiştirmektedir.

*Anahtar Sözcükler:* Kişiler arası problem çözme becerisi, sosyal beceri, okul öncesi, müdahale

## Relationship between Irrational Beliefs and Life Satisfaction in Early Adolescents

Asım Çivitci\*

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### Abstract

*Problem Statement:* Early adolescence is a rather challenging period with regard to experiencing positive feelings and making positive evaluations of life. It is important to reveal the relationship between life satisfaction, (which shapes the cognitive component of subjective well-being) and irrational beliefs (which lead to psychological disturbances as a cognitive structure during early adolescence). Relationships between irrational beliefs and life satisfaction in adults may be better understood when they are examined from the perspective that irrational beliefs rooted in childhood and adolescence may have a negative role on an individual's life in his or her advanced years.

*Purpose of Study:* This study investigated the relationship between life satisfaction domains and irrational beliefs among Turkish early adolescents. Life satisfaction in different domains was examined with respect to irrational beliefs (the demands for success, respect, and comfort) in the total sample and in girl and boy groups.

*Methods:* The Multidimensional Students' Life Satisfaction Scale and the Irrational Belief Scale for Adolescents were administered to 304 adolescents attending three junior high schools in Denizli, Turkey. Hierarchical regression analysis and Pearson correlation coefficients were used for data analysis.

*Findings and Results:* Research findings indicate that total irrational beliefs and the demand for comfort generally have a negative relationship with life satisfaction domains and that the demands for respect and success have an unexpected positive relationship with some life satisfaction domains (e.g., self satisfaction). Among girls, only a negative demand for comfort

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was found to predict life satisfaction domains; however, among boys, besides the demand for comfort, a demand for success and a demand for respect were found to predict life satisfaction positively in several domains. Demand for comfort generally emerged as the strongest predictor of life satisfaction in the total sample and the girl and boy groups.

*Conclusions and Recommendations:* The present study indicated a generally negative relationship between (1) life satisfaction domains and total irrational beliefs and (2) the demand for comfort. However, there is an unexpected positive relationship between the demands for respect and for success and some life satisfaction domains. Since the findings of this study are based on correlation and regression values, it is difficult to establish a causal relationship. For this reason, further studies are necessary to investigate the relationships between irrational beliefs and life satisfaction, together with familial and cultural factors and demographic variables. Furthermore, a longitudinal research study may likewise be conducted to study the changes in the relationship between irrational beliefs and life satisfaction from early adolescence to late adolescence.

*Keywords:* Irrational beliefs, life satisfaction, Turkish early adolescents, gender

One of the main concepts investigated in the field of positive psychology is subjective well-being. Subjective well-being, which is also popularly known as “happiness” encompasses both affective and cognitive evaluations of an individual’s life (Diener, 2000). Subjective well-being consists of a cognitive component, known as life satisfaction, and an affective component, which covers pleasant and unpleasant emotions (Diener & Suh, 1997). Individuals with high subjective well-being possess more positive feelings and thoughts about their lives. Individuals with high subjective well-being at the affective level have less frequent experiences of such unpleasant emotions as anxiety, depression, and anger. However, individuals with high subjective well-being at the cognitive level evaluate their own lives more positively in the areas of their occupation, marriage, etc. (Myers & Diener, 1995). Life satisfaction, also known as perceived quality of life (Huebner, Suldo, Smith, & McKnight, 2004), is defined as the self-cognitive evaluation of an individual’s own quality of life (Myers & Diener, 1995).

Unpleasant emotions are regarded as part of the affective component of subjective well-being and are considered an indicator of low subjective well-being. Unpleasant emotions are explained within the concept of “irrational beliefs” from the perspective of the Rational-Emotive Behavior Therapy (REBT). According to the REBT (one of the cognitive behavioral therapies), the causes of such psychological disturbances as anxiety, anger, depression, guilt, and inefficiency are not rooted in the experienced events of an individual, but they are rather the irrational beliefs that an individual holds related to events (Ellis, 1973). Ellis (1979), the pioneer of the REBT, categorizes irrational beliefs leading to self-defeating unpleasant emotions into

three groups: (1) "I absolutely must be competent and successful and must earn others' respect and approval," (2) "People must always treat me with kindness, respect, and honesty," and (3) "The circumstances that I am in should be comfortable, non-problematic, and easy." This classification reflects one's irrational beliefs about oneself, others, and surrounding conditions. These irrational beliefs are usually expressed in terms of absolute musts, commands, or demands, and if people hold rigid beliefs, they are likely to experience emotional disturbances (Ellis, 1979). Beliefs that are not expressed as demands but as preferences are accepted to be rational and lead to more adaptive levels of emotionality and appropriate behavior (Bernard, Ellis, & Terjesen, 2006).

In literature, numerous studies investigated the relationship between irrational beliefs and unpleasant emotions such as anxiety, depression, and anger, which form the affective component of subjective well-being; however, few studies addressed the relationship between life satisfaction in the cognitive component of subjective well-being and irrational beliefs. In addition, a limited number of existing research studies (e.g., Bernard, 1998; Ciarrochi, 2004; Froh et al., 2007; Matel, 1992; Snell & Hawkins, 1985; Wicker, Richardson, & Lambert, 1985) focused on adults. The same is true for research on life satisfaction. Studies on life satisfaction tend to focus on aspects associated with adult life such as marriage, jobs, and senility (Greenspoon & Saklofske, 1998), but studies on the life satisfaction of children and adolescents are limited (Gilman, Huebner, & Laughlin, 2000). However, irrational beliefs that negatively affect an individual's evaluation of his own life are mostly established during childhood and adolescence. The majority of irrational beliefs arise during childhood when rational and logical thinking capacity is very limited (Bernard, 1984). Due to lack of knowledge and experience, school-age children are more likely to draw wrong conclusions and make erroneous estimations of real situations than adults are (Bernard & Joyce, 1991). In addition, adolescence is a period during which the irrational thoughts that developed in childhood are perpetuated, and new beliefs accompanied by adolescent egocentrism are established (Bernard, 1984).

The early adolescence period covers the initial years of transition to adolescence from childhood (approximately ages 11-14), and it is a period during which undesirable feelings such as anxiety, shyness, guilt, depression, and anger are felt and are accompanied by the physical and hormonal changes experienced during puberty (Vernon, 1999). In this period, adolescents may feel anxiety and stress due to such issues as their physical appearance, popularity, rejection in peer groups, peer pressure, or growing independence from adults (Stone & Bradley, 1994). Some studies indicate that life satisfaction decreases (Chang, Chang, Stewart, & Au, 2003) and trait anxiety increases (Byrne, 2000) in the early years of adolescence. Toward the end of early adolescence, anger increases (Roeser & Eccles, 1998), and school and family satisfaction decreases (Huebner, Valois, Paxton, & Drane, 2005). Similarly, irrational beliefs have been found to be higher in early adolescence than in late adolescence (Marcotte, 1996). Given these results, early adolescents may face challenges to experiencing positive feelings and evaluating their lives in a more positive way.

Early adolescence is a period when puberty changes occur and gender differences emerge (Glenn, 1999). Some research findings indicate that girls in the early ages of adolescence experience more depression (Marcotte, 1996), anxiety (Byrne, 2000), and stress-causing events than boys and need more peer support than boys do (Liu, 2002). The self-esteem and anger levels of boys are higher than for girls (Roeser & Eccles, 1998). On the other hand, in some of the studies on early adolescents' life satisfaction (Huebner et al., 2005; Nickerson & Nagle, 2004) and friend satisfaction (Huebner et al., 2005). However, according to some research, there are no gender differences between satisfaction with family, school, friends, living environment, and self (Huebner et al., 1998) and overall life satisfaction (Fogle, Huebner, & Laughlin, 2002; Huebner, Laughlin, Ash, & Gilman, 1998; Seligson, Huebner, & Valois, 2003). These results indicate that the effect of gender on such variables as anxiety, depression, stress, and anger (that constitute the affective component of subjective well-being in early adolescents) is more prominent than on life satisfaction, which forms the cognitive component of subjective well-being. On the other hand, some findings show that irrational beliefs do not vary by gender during early adolescence (Çivitci, 2006; Hooper & Layne 1983; Lee, Hallberg, & Haase, 1979; Liu, 2002; Marcotte, 1996). As aforementioned, according to the REBT, irrational beliefs lead to unhealthy feelings such as anxiety, anger, and depression, which form the affective component of subjective well-being. Therefore, investigating the relationships between life satisfaction and irrational beliefs based on gender may contribute to understanding the role of gender on the affective and cognitive components of subjective well-being in early adolescents.

In the present study, the relationships between total irrational beliefs; the demand for success, the demand for respect, and the demand for comfort; and overall life satisfaction and life satisfaction in the domains of friend, school, living environment, family, and self were studied among Turkish early adolescents. In addition, the power of irrational beliefs in predicting life satisfaction of male and female students in the various domains was investigated.

## Method

### *Participants*

The participants included 304 students (156 boys and 148 girls) from one private and two public junior high schools in Denizli, a mid-sized city in western Turkey. Participants ranged in age from 11 to 15 years ( $M= 12.78$ ,  $SD= 0.93$ ), and the majority of the participants' ages (94%) ranged from 12 to 14 years old. The data of individuals' socio-economic statuses (SES) were not collected; however, considering the schools' type (public and private) and the school districts, the students were estimated to come from predominantly middle and upper SES families.

### *Measures*

*Multidimensional life satisfaction.* Adolescents' life satisfaction was measured through the Turkish version of the Multidimensional Students' Life Satisfaction Scale (MSLSS), which measures both overall life satisfaction and satisfaction with specific



life domains (friends, school, living environment, family, and self). The original version of the MSLSS was developed by Huebner (1994) and consisted of 40 items. The psychometric properties of the MSLSS were reported to be valid and reliable for children and adolescents in previous research studies (Gilman et al., 2000; Huebner, 1994; Huebner et al., 1998). The MSLSS was adapted to Turkish by Çivitci (2007). The MSLSS-Turkish version contains 36 items with a loading of .34 or higher. Each item is rated on a four-point Likert scale (never; sometimes; often; and almost always), and a high score shows a high degree of life satisfaction. Life satisfaction in all domains correlates significantly with depression ( $r$  range= .30 to .59,  $p < .01$ ) for concurrent validity. Test-retest coefficients for the MSLSS subscales and total scale ranged from .70 to .86. The alpha coefficients for the subscales ranged from .70 to .85 (total score= .87) (Çivitci, 2007). The obtained internal consistency reliability for friends, school, living environment, family, self, and total scores were .81, .78, .74, .74, .67, and .88, respectively, in this study.

*Irrational beliefs.* Adolescents' irrational beliefs were measured using the Irrational Beliefs Scale for Adolescents (IBSA). The IBSA, developed by Çivitci (2006), is a self-report scale for early adolescents designed to assess irrational beliefs. The instrument was designed to assess Ellis's three, core, irrational beliefs. The IBSA consists of 21 items in Turkish, and each item is rated on a 5-point Likert scale from *strongly disagree* (1) to *strongly agree* (5); in which, high scores indicate higher irrationality. The IBSA includes three subscales that reflect Ellis's conceptualization of irrationality (especially the three, core, irrational beliefs): (a) a demand for success, which focuses on the belief that one should be successful and thoroughly competent, (b) a demand for comfort, which involves the idea that life must be comfortable, easy, and positive, and (c) a demand for respect, which consists of the belief that others must be kind and considerate. The IBSA's factor items had loadings of at least .40 for construct validity. The IBSA total and subscales significantly correlated with the Children's Depression Inventory (CDI) and the Test Anxiety Inventory (TAI). The three-week test-retest reliability for the total score was .82, and the reliability scores for the subscales ranged from .67 to .84. The alpha coefficient for the total score was .71, and coefficients for the subscales ranged from .57 to .62 (Çivitci, 2006). Internal consistency reliabilities estimated in the present sample for demand for success, demand for comfort, demand for respect, and total score were .71, .72, .59, and .71, respectively.

### **Procedures**

Permission to collect data was obtained from the local education authorities. Scales were applied (in one-course hour) on the students from one class randomly selected from each grade. Scales were applied by the final-year students attending the psychological counseling and guidance department. Students were informed about anonymity, privacy, and confidentiality. Demographic information was obtained through selected demographic questions (i.e., gender, age, and grade), which were completed as part of the instruments. The instruments took approximately 40 minutes to complete. All students who volunteered to participate in the study gave their consent.

## Results

As Table 1 illustrates, bivariate correlations indicate a negative relationship between Total Irrational Beliefs and all life satisfaction domains, except for Self Satisfaction for the total sample. The Demand for Comfort negatively correlates with all life satisfaction domains for the total sample. The correlations indicate that the Demand for Success correlates significantly with only Family Satisfaction for the total sample. The Demand for Respect was also related significantly with only Self Satisfaction for the total sample.

**Table 1**

*Intercorrelations of All Variables for Total Sample*

	1	2	3	4	5	6	7	8	9
1. Overall life satisfaction	-								
2. Friends satisfaction	.83**	-							
3. School satisfaction	.71**	.47**	-						
4. Environment satisfaction	.85**	.66**	.48**	-					
5. Family satisfaction	.80**	.53**	.54**	.59**	-				
6. Self satisfaction	.74**	.54**	.36**	.59**	.45**	-			
7. Total irrational beliefs	-.20**	-.22**	-.24**	-.15**	-.17**	.01	-		
8. Demand for success	.06	-.03	.06	.03	.12*	.06	.71**	-	
9. Demand for respect	.08	.01	.03	.06	.03	.19**	.50**	.08	-
10. Demand for comfort	-.47**	-.36**	-.51**	-.34**	-.47**	-.17**	.69**	.11	.21**

\*  $p < 0.05$ , \*\*  $p < 0.01$

To explore more specific effects of the IBSA dimensions (the demand for success, the demand for respect, and the demand for comfort) on life satisfaction, hierarchical regressions were conducted, using each of the subscales of the MSLSS as predictor variables. Gender and age were statistically controlled for their possible influence on the hierarchical regression analysis. As shown in Table 2, when gender and age were controlled, all regression models were significant. The subscales of the IBSA significantly explained 26% of the variance in Overall Life Satisfaction for the total sample. The Demand for Success and the Demand for Respect contributed significantly to the variance in adolescents' total life satisfaction as did the Demand for Comfort in a negative direction. The subscales of IBSA predicted 14% of the variance in Friends Satisfaction, and an examination of the beta weights indicates that only the Demand for Comfort made a significant contribution. Thirty percent of

the variance in School Satisfaction was predicted by the regression model with the Demand for Success, the Demand for Respect, and the Demand for Comfort making significant contributions. The subscales of the IBSA explained 13% of the variance in Living Environment Satisfaction, and an examination of the beta weights indicates that the Demand for Respect and the Demand for Comfort made a significant contribution. Twenty-seven percent of the variance in Family Satisfaction was explained by the model, and all subscales of the IBSA contributed significantly. The regression model predicted only 9% of the variance in Self Satisfaction, and beta weights indicate that the Demand for Respect and the Demand for Comfort significantly contributed to the variance.

**Table 2**

*Summary of Hierarchical Regression Analysis for Effects of Irrational Beliefs on Satisfaction Domains*

Variables	Total Sample			
	$\beta$	<i>t</i>	$R^2$	<i>F</i>
Overall life satisfaction				
Block 1				
Gender	-.10	-1.65		
Age	-.08	-1.38	.01	2.16
Block 2				
Demand for success	.10	2.05*		
Demand for respect	.17	3.36**	.26	21.31***
Demand for comfort	-.51	-9.87***		
Friends satisfaction				
Block 1				
Gender	-.11	-1.93		
Age	.00	.01	.01	1.88
Block 2				
Demand for success	.01	.27		
Demand for respect	.09	1.60	.14	9.92***
Demand for comfort	-.37	-6.72***		
School satisfaction				
Block 1				
Gender	-.11	-1.97*		
Age	-.14	-2.53*	.03	4.82**
Block 2				
Demand for success	.10	2.10*		
Demand for respect	.12	2.43*	.30	25.46***
Demand for comfort	-.53	-10.62***		

**Table 2**  
(Continued)

	$\beta$	$t$	$R^2$	$F$
Environment satisfaction				
Block 1				
Gender	-.07	-1.16	.01	.76
Age	-.03	-.51		
Block 2				
Demand for success	.06	1.09		
Demand for respect	.13	2.38*	.13	9.20***
Demand for comfort	-.36	-6.54***		
Family satisfaction				
Block 1				
Gender	-.05	-.90	.02	2.81
Age	-.13	-2.25*		
Block 2				
Demand for success	.16	3.18**		
Demand for respect	.12	2.27*	.27	21.49***
Demand for comfort	-.50	-9.73***		
Self satisfaction				
Block 1				
Gender	-.03	-.50	.01	.15
Age	-.01	-.25		
Block 2				
Demand for success	.07	1.25		
Demand for respect	.23	4.11***	.09	5.62***
Demand for comfort	-.22	-3.89***		

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

In this study, gender differences were examined through separate hierarchical regressions for girls and boys. As shown in Table 3, when age was controlled, all regression models were significant for both girls and boys. The subscales of the IBSA significantly contributed to the variance in total score and subscales of the MSLSS for girls. The beta weights indicate that only the Demand for Comfort significantly contributed to the variance in all domains of life satisfaction for girls. The subscales of the IBSA significantly contributed to the variance in the total score and subscales of the MSLSS for boys. The beta weights indicate that the Demand for Respect was significantly predicted by all domains of life satisfaction for boys. The Demand for Success significantly contributed to the variance in Overall Life Satisfaction, Family Satisfaction, and Self Satisfaction for boys. The Demand for Comfort was a significant predictor of Overall Life Satisfaction, Friends Satisfaction, School Satisfaction, Living Environment Satisfaction, and Family Satisfaction in a negative direction for boys.

**Table 3**

*Summary of Hierarchical Regression Analysis for Effects of IBSA Subscales on Life Satisfaction Domains by Gender*

Variables	Girl				Boy			
	$\beta$	<i>t</i>	$R^2$	<i>F</i>	$\beta$	<i>t</i>	$R^2$	<i>F</i>
Overall life satisfaction								
Block 1								
Age	-.13	-1.62	.02	2.63	-.02	-.28	.01	.08
Block 2								
Demand for success	.04	.60			.16	2.20*		
Demand for respect	.08	1.17	.40	23.71***	.30	3.98*	.21	9.86***
Demand for comfort	-.64	-9.42***			-.38	-5.13***		
Friends satisfaction								
Block 1								
Age	-.10	-1.15	.01	1.32	.086	1.07	.01	1.14
Block 2								
Demand for success	.03	.46			-.01	-.01		
Demand for respect	-.02	-.21	.26	12.75***	.20	2.49*	.10	3.99***
Demand for comfort	-.50	-6.70***			-.26	-3.23**		
School satisfaction								
Block 1								
Age	-.17	-2.09*	.03	4.35*	-.12	-1.44	.01	2.06
Block 2								
Demand for success	.09	1.29			.12	1.60		
Demand for respect	.08	1.13	.37	21.18***	.19	2.56*	.23	11.38***
Demand for comfort	-.60	-8.70***			-.46	-6.31***		
Environment satisfac.								
Block 1								
Age	-.15	-1.84	.02	3.39	.09	1.10	.01	1.20
Block 2								
Demand for success	.00	-.01			.12	1.55		
Demand for respect	.07	.94	.22	10.05***	.21	2.70**	.12	5.01**
Demand for comfort	-.46	-5.96***			-.28	-3.57***		
Family satisfaction								
Block 1								
Age	-.09	-1.14	.01	1.29	-.17	-2.13*	.03	4.51*
Block 2								
Demand for success	.13	1.94			.18	2.37*		
Demand for respect	.07	.97	.36	20.44***	.19	2.53*	.20	9.66***
Demand for comfort	-.60	-8.68***			-.39	-5.24***		

**Table 3**  
(Continued)

	Girl				Boy			
	$\beta$	<i>t</i>	$R^2$	<i>F</i>	$\beta$	<i>t</i>	$R^2$	<i>F</i>
Self satisfaction								
Block 1								
Age	-.03	-.30	.01	.09	-.01	-.05	.00	.01
Block 2								
Demand for success	-.12	-1.55			.25	3.33**		
Demand for respect	.13	1.54	.14	5.78***	.37	5.00***	.20	9.15***
Demand for comfort	-.36	-4.49***			-.11	-1.40		

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ 

### Discussion

In this study, significant negative relationships were obtained, though at a low level, between total irrational beliefs and life satisfaction domains (except for self-satisfaction) in the total sample. These findings are consistent with other studies reporting a negative relationship between overall life satisfaction and irrational beliefs in adults (Bernard, 1998; Ciarrochi, 2004; Froh et al., 2007; Matel, 1992). Ciarrochi (2004) found in his study on university students that the relationships between irrational beliefs and such unpleasant emotions as depression, anxiety, stress, and hopelessness, which form the affective element of subjective well-being, were relatively higher compared to the relationships with life satisfaction that constitutes the cognitive element of subjective well-being. Similar findings were reported in a study carried out by Bernard (1998). In this research, correlations between irrational beliefs and overall life satisfaction were relatively lower than those found between irrational beliefs and anxiety, anger (Bernard & Cronan, 1999), and depression (Burnett, 1995; Liu, 2002; Marcotte, Marcotte, & Bouffard, 2002) in children and adolescents. It can be inferred from these results that, just as in adults, irrational beliefs in children and adolescents are more strongly related to such affective variables as anxiety, anger, and depression than life satisfaction. Therefore, it can be stated that these findings are consistent with previous studies (Bernard, 1998; Ciarrochi, 2004) and conceptual views of the REBT, which proposes that irrational beliefs lead to such unhealthy feelings as anxiety, anger, and depression.

In the total sample, significant negative relationships at a moderate level were observed between the demand for comfort and all domains of life satisfaction. Similarly, both in the total sample and in girls and boys, the strongest predictor of life satisfaction domains (except for self satisfaction in boys) was the demand for comfort. These results are consistent with a study (Bernard, 1998) that showed the relationship between the need for comfort as one of the domains of irrational beliefs and life satisfaction. Early adolescence is considered to be a rather challenging period with regard to irrational beliefs (Marcotte, 1996), life satisfaction (Chang et al., 2003), and trait anxiety (Byrne, 2000). A study conducted on Turkish early adolescents

(Sayıl, Uçanok, & Güre, 2002) revealed that adolescents tend to expect understanding and tolerance at a very high degree from all adults, especially from their parents and teachers. In the early adolescence period, the developmental difficulties encountered by early adolescents who may experience anxiety and stress pertaining to such issues as their physical appearance, relationships with peers, peer pressure, and independence from adults (Stone & Bradley, 1994) may have exacerbated their demand for comfort, pertaining to the thought that "I must always have an easy life free of problems." In adolescence, student expectations for tolerance and understanding from adults are high. Adolescents, who continue to experience developmental difficulties unique to early adolescence, may be more negative in this period when evaluating their lives as they think that their expectations for independence are not sufficiently met.

In this study, the demand for success positively correlated with only family satisfaction in the total sample. The regression coefficients obtained from the total sample indicate that the demand for success positively predicts both overall life satisfaction and school and family domains. Studies that show significant negative relationships between life satisfaction and the need for success in university students (Bernard, 1998) and those that indicate a significant relationship between depression and the demand for success among Turkish early adolescents (Çivitci, 2006) are not consistent with the findings of the present study. An interpretation of this result may be that in the early adolescence period when efforts to gain independence and identity begin, the demand for success may not have started to play a negative role on adolescents' evaluation of their lives. Some studies (Blasi & Milton, 1991; Roeser & Eccles, 1998) show that self-esteem in the early years of adolescence is lower compared to the following years. The demand for success may act as a motivating power among early adolescents in displaying their self-sufficiency. Based on research studies showing the importance of parental social support (Suldo & Huebner, 2004), parental warmth (Chang et al., 2003), relationships with parents (Huebner, Gilman, & Laughlin, 1999; Leung & Zhang, 2000), and attachment to parents (Huebner et al., 1999; Leung & Zhang, 2000) in early adolescents' life satisfaction, early adolescents use the demand for success in their relationships with their parents to gain more acceptance of and satisfaction from them by "proving" their sufficiency. In the present study, the demand for success positively predicted school satisfaction. In a study on adolescents by Stoeber and Rambow (2006), it was seen that as efforts for perfectionism increased, hope of success, motivation in school, and grades also increased. In light of these two studies, the demand for success may play a positive role in increasing academic success at school and motivation, and therefore, it may facilitate school satisfaction.

Regression results showed that the demand for success did not significantly predict any dimension of life satisfaction in girls; however, surprisingly, it positively predicted overall life satisfaction, family satisfaction, and self satisfaction in boys. The findings of this study can be explained by the value that males are ascribed in the Turkish culture. In a study by Kağıtçıbaşı and Ataca (2005), the utilitarian/economic value attributed to children by the family has decreased, and the

psychological value has increased in the last 30 years in Turkey. However, traditionally, utilitarian/economic expectations from boys continue to exist. In some studies carried out on Turkish youth, it was found that the roles related to success, status, and self-confidence are mostly ascribed to boys (Kısaç, 1999) and that boys had a more positive perception of themselves with respect to athletic, academic, and employment sufficiency (Şahin & Güvenç, 1996). Because the utilitarian/economic expectations of boys are higher than those of girls in the Turkish culture, this expectation can be a factor in the higher tendency of boys to be sufficient and successful. The demand for success in boys may also help boys gain more acceptance or approval in their cultural environment and, thus, make it easier for boys to perceive their lives more positively.

In this study, a significant correlation was not found between the demand for respect and life satisfaction domains (except for self-satisfaction) in the total sample. Nevertheless, a positive relationship was found between the demand for respect and self satisfaction. Regression results also showed that the demand for respect positively predicted overall life satisfaction and the four other domains except for friend satisfaction. According to REBT, a person who believes that he or she must be treated with kindness, honesty, and thoughtfulness and who thinks that the situation is dreadful and unbearable when they are not treated as such experiences feelings of rage, hate, hostility, etc. (Ellis, 1979). Therefore, as the demand for respect (which may lead to such unhealthy feelings as hatred and hostility) increases, life satisfaction in adolescents would be expected to decrease. The result obtained in the present study is not consistent with the conceptual view of the REBT. While a study carried out on university students (Bernard, 1998) has shown that the demand for fairness (which has a similar conceptual content to the demand for respect) has a relationship with trait anger and anger expression at a moderate level, a study conducted on adolescents (Bernard & Cronan, 1999) has shown that the relationship between the demand for fairness and trait anger is relatively low. The lower level for the relationship between the demand for honesty and trait anger in adolescents seems to indicate, from the perspective of the REBT, that the demand for respect in this period does not lead to anger that causes a decrease in life satisfaction. This situation may be explained by the importance that early adolescents place on the relationships with persons from whom they demand respect (parents, peers, teachers, etc.). Numerous studies (Chang et al., 2003; Huebner et al., 1998; Huebner et al., 1999; Leung & Zhang, 2000; Nickerson & Nagle, 2004; Suldo & Huebner, 2004) indicate that the life satisfaction of early adolescents increases as their positive relationships increase with their parents and peers. Because of the importance of positive relationships with their parents and peers on life satisfaction in early adolescents, the demand for respect may not yet have a negative impact on their relationships and, therefore, on their life satisfaction. However, more studies examining the demand for respect, anger, and life satisfaction are needed to conduct a more in-depth evaluation of the way in which the demand for respect positively predicts life satisfaction in early adolescents.

According to the regression values, the demand for respect positively predicts total life satisfaction and overall life satisfaction domains in boys, whereas it does not significantly predict any domain of life satisfaction in girls. This could in part be due



to the gender roles of the mainstream Turkish culture. The dominant, assertive, independent, and strong personality roles are more often attributed to males in Turkish culture (Özkan & Lajunen, 2005). Thus, males' expectations from other individuals to treat them kindly, thoughtfully, and respectfully may be accepted as culturally "normal." A study conducted on Turkish early adolescents (Sayil et al., 2002) showed that boys have lower expectations of understanding, attention, and tolerance from adults than do girls. Therefore, that boys' demand for respect is met in the cultural environment may be a factor in the increase of their life satisfaction.

In conclusion, this study shows that total irrational beliefs and the demand for comfort have a negative relationship with life satisfaction domains in Turkish early adolescents and that the demand for respect and the demand for success surprisingly have a positive relationship with some life satisfaction domains. Since the findings of this study are based on correlation and regression values, it is difficult to establish a causal relationship. For this reason, further studies should investigate relationships between irrational beliefs and life satisfaction together with familial and cultural factors and demographic variables. In this way, the reasons for the increase in life satisfaction (in domains such as school and family) as the demand for respect and the demand for success increase can be understood better. Furthermore, longitudinal research may be conducted to examine the changes in the relationship between irrational beliefs and life satisfaction from early adolescence to late adolescence.

In the literature, the number of studies investigating the relationship between irrational beliefs and life satisfaction is limited, which constrained the interpretation of the findings related to certain variables (e.g., the demand for success and the demand for respect). In new studies on the relationship between irrational beliefs and life satisfaction, unhealthy emotions such as anxiety, anger, and depression, which are rooted in irrational beliefs (according to the REBT), should be included as mediator variables. In this way, the relationship between the REBT's theoretical views and life satisfaction of adolescents may be examined more closely.

The present study is of importance since it shows that irrational beliefs generally play a negative role on early adolescents' perceptions of their lives. Therefore, school counselors should implement activities (such as rational emotive education) at school to help students to recognize their irrational beliefs and to replace them with rational beliefs. In this way, they can enable students to perceive their lives more positively.

A number of limitations of this study should be noted. First, the study was based on adolescents in three schools in Turkey. The present results cannot be generalized beyond the homogeneous sample included in the study. Further studies on adolescents from different national and cultural backgrounds are necessary to determine the generalizability of the findings. The data collected in this study were obtained through self-report measures, which may be influenced by social desirability.

## References

- Bernard, M.E. (1984). Childhood emotion and cognitive behavior therapy: a rational-emotive perspective. In P. C. Kendall (Ed.), *Advances in Cognitive-Behavioral Research and Therapy* (3) (pp. 213-253). London: Academic Press.
- Bernard, M.E. (1998). Validation of the general attitude and belief scale. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 16, 183-196.
- Bernard, M.E. & Cronan, F. (1999). The child and adolescent scale of irrationality: Validation data and mental health correlates. *Journal of Cognitive Psychotherapy: An International Quarterly*, 13, 121-132.
- Bernard, M.E. & Joyce, M.R. (1991). RET with children and adolescents. In M. E. Bernard (Ed.), *Using rational-emotive therapy effectively. A practitioner's guide* (pp. 319-347). New York: Plenum Press.
- Bernard, M.E., Ellis, A., & Terjesen, M. (2006). Rational-emotive behavioral approaches to childhood disorders: History, theory, practice, and research. In A. Ellis & M. E. Bernard (Eds.), *Rational-emotive behavioral approaches to childhood disorders* (pp. 3-84). New York: Springer.
- Blasi, A. & Milton, K. (1991). The development of the sense of self in adolescence. *Journal of Personality*, 59, 217-241.
- Burnett, P.C. (1995). Irrational beliefs and self-esteem: Predictors of depressive symptoms in children. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 13, 193-201.
- Byrne, B. (2000). Relationships between anxiety, fear, self-esteem, and coping strategies in adolescence. *Adolescence*, 35, 201-215.
- Chang, L., McBride-Chang, C., Stewart, S.M., & Au, E. (2003). Life satisfaction, self concept, and family relations in Chinese adolescents and children. *International Journal of Behavioral Development*, 27, 182-189.
- Ciarrochi, J. (2004). Relationship between dysfunctional beliefs and positive and negative indices of well-being: A critical evaluation of the common beliefs survey-III. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 22, 171-188.
- Çivitci, A. (2006). Ergenler için mantıkdışı inançlar ölçeğinin geliştirilmesi: Geçerlik ve güvenilirlik çalışmaları [The development of irrational beliefs scale for adolescents: Validity and reliability studies]. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 3 (25), 69-80.
- Çivitci, A. (2007). Çokboyutlu öğrenci yaşam doyumu ölçeğinin Türkçe'ye uyarlanması: Geçerlik ve güvenilirlik çalışmaları [The adaptation of multidimensional students' life satisfaction scale into Turkish: Validity and reliability studies]. *Eğitim Araştırmaları-Eurasian Journal of Educational Research*, 26, 51-60.
- Diener, E. (2000). Subjective well-being. The science of happiness and a proposal for a national index. *American Psychologist*, 55, 34-43.

- Diener, E. & Suh, E. (1997). Measuring quality of life: Economic, social and subjective indicators. *Social Indicators Research*, 40, 189-216.
- Ellis, A. (1973). *Humanistic psychotherapy. The rational-emotive approach*. New York: The Julian Press.
- Ellis, A. (1979). Rational-emotive therapy. In A. Ellis, & J. Whiteley (Eds.), *Theoretical and Empirical Foundations of Rational-Emotive Therapy* (pp. 1-6). California: Brooks/Cole.
- Fogle, L. M., Huebner, E.S., & Laughlin, J.E. (2002). The relationship between temperament and life satisfaction in early adolescence: Cognitive and behavioral mediation models. *Journal of Happiness Studies*, 3, 373-392.
- Froh, J.J., Fives, C.J., Fuller, R., Jacofsky, M.D., Terjesen, M.D., & Yurkewicz, C. (2007). *The Journal of Positive Psychology*, 2 (1), 29-39.
- Gilman, R., Huebner, E.S., & Laughlin, J.E. (2000). A first study of the multidimensional students' life satisfaction scale with adolescents. *Social Indicators Research*, 52, 135-160.
- Glenn, W. (1999). *Evolutionary principles of human adolescence*. New York: Basic Books.
- Greenspoon, P.J. & Saklofske, D.H. (1998). Confirmatory factor analysis of the multidimensional students' life satisfaction scale. *Personality and Individual Differences*, 25, 965-971.
- Hooper, S.R. & Layne, C.C. (1983). The common belief inventory for students: A measure of rationality in children. *Journal of Personality Assessment*, 47, 85-90.
- Huebner, E.S. (1994). Preliminary development and validation of a multidimensional life satisfaction scale for children. *Psychological Assessment*, 6, 149-158.
- Huebner, E.S., Gilman, R.A., & Laughlin, J.E. (1999). Multimethod investigation of the multidimensionality of children's well-being reports: Discriminant validity of life satisfaction and self-esteem. *Social Indicators Research*, 46, 1-22.
- Huebner, E.S., Laughlin, J.E., Ash, C., & Gilman, R. (1998). Further validation of the multidimensional students' life satisfaction scale. *Journal of Psychoeducational Assessment*, 16, 118-134.
- Huebner, E.S., Suldo, S.M., Smith, L.C., & McKnight, C.G. (2004). Life satisfaction in children and youth: Empirical foundations and implications for school psychologists. *Psychology in the Schools*, 41, 81-93.
- Huebner, E.S., Valois, R.F., Paxton, R.J., & Drane, J.W. (2005). Middle school students' perception of quality of life. *Journal of Happiness Studies*, 6, 15-24.
- Kağitçibaşı, Ç. & Ataca, B. (2005). Value of children and family change: A three-decade portrait from Turkey. *Applied Psychology: An International Review*, 54, 317-337.
- Kısaç, İ. (1999). Erkeklik rolü normları [Male role norms]. *Mesleki Eğitim Dergisi*, 1 (2): 79-89.

- Lee, D.Y., Hallberg, E.T., & Haase, R.F. (1979). Endorsement of Ellis's irrational beliefs as a function of age. *Journal of Clinical Psychology, 35*, 754-756.
- Leung, J. & Zhang, L. (2000). Modelling life satisfaction of Chinese adolescents in Hong Kong. *International Journal of Behavioral Development, 24*, 99-104.
- Liu, Y. (2002). The role of perceived social support and dysfunctional attitudes in predicting Taiwanese adolescents' depressive tendency. *Adolescence, 37*, 823-834.
- Marcotte, D. (1996). Irrational beliefs and depression in adolescence. *Adolescence, 31*, 935-955.
- Marcotte, G., Marcotte, D., & Bouffard, T. (2002). The influence of familial support and dysfunctional attitudes on depression and delinquency in an adolescent population. *European Journal of Psychology of Education, 17*, 363-376.
- Matel, D.M. (1992). *Women and depression, dysfunctional attitudes, and life satisfaction*. Unpublished Doctoral Thesis, Marquette University, Milwaukee, Wisconsin. Retrieved October 14, 2006, from UMI Prequest database (ID: 744182381)
- Myers, D.G. & Diener, E. (1995). Who is happy. *Psychological Science, 6*, 10-19.
- Nickerson, A.B. & Nagle, R.J. (2004). The influence of parent and peer attachments on life satisfaction in middle childhood and early adolescence. *Social Indicators Research, 66*, 35-60.
- Özkan, T. & Lajunen, T. (2005). Masculinity, femininity, and the Bem sex role inventory in Turkey. *Sex Roles, 52*, 103-110.
- Roeser, R.W. & Eccles, J.S. (1998). Adolescents' perceptions of middle school: Relation to longitudinal changes in academic and psychological adjustment. *Journal of Research on Adolescence, 8*, 123-158.
- Sayı, M., Uçanok, Z., & Güre, A. (2002). Erken ergenlik döneminde duygusal gereksinimler, aileyle çatışma alanları ve benlik kavramı: Betimsel bir inceleme [A descriptive study of emotional needs, concerns, parent-adolescent conflicts and self in puberty]. *Çocuk ve Gençlik Ruh Sağlığı Dergisi, 9*, 155-166.
- Seligson, J.L., Huebner, E. S., & Valois, R. F. (2003). Preliminary validation of the brief multidimensional students' life satisfaction scale (BMSLSS). *Social Indicators Research, 61*, 121-145.
- Snell, W.E. & Hawkins, R.C. (1985). Life satisfaction and irrational beliefs: The mediating influence of negative and positive life change *Journal of Rational-Emotive & Cognitive-Behavior Therapy, 3*, 44-54.
- Stoeber, J. & Rambow, A. (2007). Perfectionism in adolescent school students: Relations with motivation, achievement, and well-being. *Personality and Individual Differences, 42*, 1379-1389.
- Stone, L.A. & Bradley, F.O. (1994). *Foundations of elementary and middle school counseling*. New York: Longman Publishers.

- Suldo, S.M. & Huebner, E.S. (2004). The role of life satisfaction in the relationship between authoritative parenting dimensions and adolescent problem behavior. *Social Indicators Research*, 66, 165-195.
- Şahin, D. & Güvenç, B.G. (1996). Ergenlerde aile algısı ve benlik algısı [The family perception and the self perceptions of adolescents]. *Türk Psikoloji Dergisi*, 11 (38), 22-32.
- Vernon, A. (1999). *Counseling children and adolescents*. (2nd Ed.). Denver: Love Publishing Company.
- Wicker, F.W., Richardson, F.C., & Lambert, F.B. (1985). Differential correlates of irrational belief. *Journal of Personality Assessment*, 49, 161-167.

## İlk Ergenlikte Mantıkdışı İnançlar ve Yaşam Doyumu Arasındaki İlişkiler

### (Özet)

*Problem Durumu:* Konuşma dilinde “mutluluk” olarak adlandırılan öznel iyi oluş, bireyin kendi yaşamına ilişkin hem duyuşsal hem de bilişsel değerlendirmelerini içermektedir. Öznel iyi oluş, olumlu ve olumsuz duyguları içeren duyuşsal unsur ile yaşam doyumu olarak bilinen bilişsel unsurdan oluşmaktadır. Algılanan yaşam kalitesi olarak da adlandırılan yaşam doyumu bireyin kendi yaşam kalitesini bilişsel değerlendirmesi olarak tanımlanmaktadır. Öznel iyi oluşun duyuşsal unsurunda yer alan ve öznel iyi oluşun düşük olduğunun göstergesi sayılan olumsuz duygular, Akılcı Duygusal Davranış Terapisi (ADDT) perspektifinden mantıkdışı inançlar kavramı ile açıklanmaktadır. Bilişsel davranışçı yaklaşımlardan birisi olan ADDT’ye göre bireydeki kaygı, öfke, depresyon, suçluluk, yetersizlik vb. duyguların ve psikolojik rahatsızlıkların nedeni yaşadığı olaylar değil, olaylara ilişkin sahip olduğu mantıkdışı inançlardır. Literatürde öznel iyi oluşun duyuşsal unsurunda yer alan kaygı, depresyon, öfke gibi olumsuz duygular ile mantıkdışı inançlar arasındaki ilişki pek çok araştırmada incelenmesine rağmen, öznel iyi oluşun bilişsel unsurunu oluşturan yaşam doyumu ile mantıkdışı inançlar arasındaki ilişkiyi ele alan araştırmaların oldukça az olduğu görülmektedir. Varolan sınırlı sayıdaki araştırmaların da yetişkinler üzerinde yapıldığı gözlenmektedir. Pubertal değişimlerin yaşandığı ilk ergenlik dönemi, ergenlerin olumlu duygular yaşamaları ve kendi yaşamlarını olumlu değerlendirmeleri açısından genellikle daha dezavantajlı bir evre olarak değerlendirilmektedir. Literatürde son yıllarda ilk ergenlikte yaşam doyumu ile psikolojik sağlığın olumlu ve olumsuz göstergelerini yansıtan değişkenler (örneğin, benlik saygısı, kaygı, depresyon vb.) arasındaki ilişkileri inceleyen araştırmalarda göreceli bir artış olduğu gözlenirken, bu dönemde yaşam doyumu ile mantıkdışı inançları inceleyen bir çalışmaya

rastlanmamıştır. İlk ergenlikte öznel iyi oluşun bilişsel yönünü oluşturan yaşam doyumu ile bilişsel bir yapı olarak psikolojik sorunlara yol açabilen mantıkdışı inançlar arasındaki ilişkilerin ortaya konulması önemlidir. Çünkü, yetişkinlerde mantıkdışı inançlar ile yaşam doyumu arasında bulunan ilişkiler, çocukluk ve ergenlikte oluşan mantıkdışı inançların ileri ki yıllarda da bireyin yaşamında olumsuz bir rol oynadığı biçiminde değerlendirilebilir. Ayrıca, ergenliğin ilk yıllarında okul, aile, arkadaş gibi alanlarda "mutsuzluğa" yol açabilen mantıkdışı ya da işlevsel olmayan inançların belirlenmesi, bilişsel-davranışçı yaklaşıma dayalı daha etkili müdahale ya da eğitim programlarının hazırlanmasına da katkı sağlayabilecektir.

*Araştırmanın Amacı:* Bu çalışmanın amacı, ilk ergenlik dönemindeki öğrencilerin mantıkdışı inançları (başarı talebi, saygı talebi, rahatlık talebi) ile yaşam doyumu boyutları (genel, arkadaş, okul, yaşanılan çevre, aile ve benlik) arasındaki ilişkileri incelemektir. Ayrıca, mantıkdışı inançların kız ve erkek ergenlerin farklı alanlardaki yaşam doyumlarını yordama gücü de araştırılmıştır.

*Araştırmanın Yöntemi:* Araştırma grubunu Denizli İl merkezinde bulunan üç ilköğretim okulunun 6., 7. ve 8. sınıflarında öğrenim gören 304 öğrenci (148 kız ve 156 erkek) oluşturmuştur. Öğrenciler 11-15 yaşları arasındadır ve %94'ü 12-14 yaş grubundadır. Veriler, Çokboyutlu Öğrenci Yaşam Doyumu Ölçeği ve Ergenler İçin Mantıkdışı İnançlar Ölçeği kullanılarak elde edilmiştir. Verilerin analizinde hiyerarşik çoklu regresyon analizi ve Pearson korelasyon katsayısı ve kullanılmıştır. Ölçme araçları, resmi izinlerin alınmasından sonra okullarda yaklaşık bir ders saatinde uygulanmıştır.

*Araştırmanın Bulguları:* Bu çalışmada, tüm grupta toplam mantıkdışı inançlar ile yaşam doyumu boyutları arasında (benlik doyumu hariç), düşük düzeyde olmakla birlikte anlamlı negatif ilişkiler elde edilmiştir. Tüm grupta rahatlık talebi ile yaşam doyumunun tüm boyutları arasında genellikle orta düzeyde anlamlı negatif ilişkiler gözlenmiştir. Yine, gerek tüm grupta gerekse kızlarda ve erkeklerde yaşam doyumu boyutlarının (erkeklerde benlik doyumu hariç) en güçlü yordayıcısı rahatlık talebidir. Tüm grupta başarı talebi ile aile doyumu dışındaki yaşam doyumu boyutları arasında anlamlı bir ilişki gözlenmemiş; başarı talebi ve aile doyumu arasındaki anlamlı ilişki pozitif yönde bulunmuştur. Tüm gruptan elde edilen regresyon katsayıları ise, başarı talebinin hem genel yaşam doyumunu, hem de okul ve aile boyutlarını pozitif yönde yordadığını göstermektedir. Başarı talebi kızlarda yaşam doyumunun hiçbir boyutunu anlamlı olarak yordamamış; erkeklerde ise beklentilerin aksine, genel yaşam doyumu, aile doyumu ve benlik doyumunu pozitif yönde yordamıştır. Araştırmanın bir diğer bulgusuna göre, tüm grupta saygı talebi ile yaşam doyumu boyutları arasında (benlik doyumu hariç) anlamlı korelasyon elde edilmemiş; saygı talebi ve benlik doyumu arasında ise pozitif ilişki bulunmuştur. Regresyon sonuçları da, saygı talebinin genel

yaşam doyumunu ve arkadaş doyumunu dışındaki diğer dört boyutu pozitif yönde yordadığını göstermiştir. Saygı talebi erkeklerde genel yaşam doyumunu ve tüm yaşam doyumunu boyutlarını anlamlı olarak pozitif yönde yordarken; kızlarda yaşam doyumunun hiçbir boyutunu anlamlı olarak yordamamıştır.

*Sonuçlar ve Öneriler:* Bu araştırma, ilk ergenlikte toplam mantıkdışı inançlar ve rahatlık talebini yansıtan mantıkdışı inançların genellikle yaşam doyumunu boyutları ile negatif yönde ilişkili olduğunu; saygı talebi ve başarı talebini yansıtan mantıkdışı inançların ise beklentilerin aksine bazı yaşam doyumunu boyutları ile pozitif yönde ilişkili olduğunu göstermektedir. Literatürde ergenlerdeki mantıkdışı inançlar ile yaşam doyumunu arasındaki ilişkiyi inceleyen araştırmaların oldukça az olması, bu çalışmada bazı değişkenlerle (başarı talebi, saygı talebi gibi) ilgili bulguların yorumlanmasında bir sınırlılık oluşturmuştur. Mantıkdışı inançlar ve yaşam doyumunu ilişkisini ele alacak yeni araştırmalarda, ADDT'ye göre mantıkdışı inançlardan kaynaklanan kaygı, öfke, depresyon gibi sağlıklı olmayan olumsuz duygular da değişken olarak yer almalıdır. Böylece, ADDT'nin kuramsal görüşleri ile ergenlerin yaşam doyumları arasındaki bağlantı daha iyi anlaşılabilir. Bu araştırma Türk öğrenciler üzerinde gerçekleştirildiği için, özellikle cinsiyete ilişkin bulguları kültürel etmenler ışığında yorumlanmıştır. Ergenlerdeki yaşam doyumunu ve mantıkdışı inanç ilişkisinde cinsiyet ve diğer demografik değişkenlerin etkisinin farklı kültürlerde nasıl işlediğini daha iyi anlayabilmek için, benzer araştırmalar kültürler arasında karşılaştırmalı olarak yapılabilir. Ayrıca, mantıkdışı inançlar ve yaşam doyumunu ilişkisinin çocukluktan ilk ergenliğe ve ilk ergenlikten son ergenliğe geçişte nasıl bir değişim gösterdiğini incelemek için boylamsal araştırmalar da gerçekleştirilebilir.

*Anahtar Sözcükler:* Mantıkdışı inançlar, yaşam doyumunu, ilk ergenlik, cinsiyet

## An Investigation of Behaviors in Art Activities, Arts Participation, and Art Self-Concept among Teacher Trainees

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### Abstract

*Problem Statement:* Teachers are responsible for making a difference with students and society. Therefore, improving the personal development of teacher trainees and their subject matter knowledge and pedagogical content knowledge is an important concern for educators and counselors. Counselors are concerned about investigating teacher trainees in terms of behaviors and self concepts in the field of arts because of their professional commitment to the total development of the students and their role as a consultant to administrators and curriculum planners.

*Purpose of Study:* This study was designed to examine Turkish teacher trainees in terms of their behavior in arts activities (BAA; consumption, production, or indifference), participation in art activities in free times (PAA), and art self-concepts (ASC). Based on earlier literature, this study also will investigate these characteristics in relation to gender and the demographic and familial predictors of ASC.

*Methods:* A descriptive study was conducted on 199 (117 females, 82 males) teacher trainees selected from volunteering students of the Faculty of Education of Middle East Technical University. Data were collected by using the Art Self-Concept Scale (ASCS) and a questionnaire designed to gather demographic and background information from the participants.

*Findings and Results:* Although most of the teacher trainees were art consumers, art production behavior was rare among the teachers of the

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future. Moreover, a great deal of the teacher trainees reported insufficient PAA and lack of family guidance toward arts. While gender was not found to be related to BAA, a significant gender effect was found on ASCS scores in favor of females. Moreover, females reported significantly less PAA than males. The results also revealed that art producing behavior was the best predictor of ASC for both gender groups. However, for males there were two additional predictors of ASC—family's guidance toward arts and place of residence in most of life.

*Conclusions and Recommendations:* Based on these findings, examining the possible reasons for limited art production behavior or arts participation in free time among teacher trainees should be investigated in further studies. Moreover, providing male teacher trainees with opportunities to improve their art self-concepts can be the focus of future studies.

*Keywords:* Behavior in arts, arts participation, art self-concept, teacher trainees.

Teachers are responsible for making a difference for students and society. In addition to playing a vital role in the intellectual, emotional, social, and spiritual development of students by their subject knowledge and pedagogical knowledge, they act as role models for their students. Therefore, during the training of teacher trainees, improving their personal development is as important as improving their subject matter knowledge and pedagogical content knowledge. Commonly, pre-service teacher education programs include components of opportunities for teacher trainees to develop their teaching skills and content knowledge (Sağ, 2008). However, the personal development of teacher trainees is a component of these programs that requires more attention.

Taking part in artistic events during training can contribute to the personal development of young teacher trainees. According to Grytting (2000), arts foster a joy of learning and support the development of spatial kinesthetic, interpersonal and intrapersonal intelligences, and emotional and social growth. Powell (1997) reported the importance of creating arts for teachers to find their inner resources, trust themselves as tools for children's learning, and become a means to evoke children's creativity. According to Powell, the arts can feed the inner lives of teachers and the whole education enterprise depends on the quality of those inner lives.

In recent literature, many studies have underlined the effects of arts participation on many outcome indicators. For instance, some studies revealed causal links between participating in arts and academic achievement (Hetland & Winner, 2001; Winner & Cooper, 2000; Winner & Hetland, 2000), while others found the positive effects of participation in arts on personal and social characteristics such as self-esteem, self-confidence, self-effectiveness, and satisfaction (Heat & Soep, 1998). Therefore, participating in art activities is important both for the development of teacher trainees and for positive youth development (Eccless, et al., 2003).

Despite the deep-rooted place of arts and their countless benefits in the lives of human beings, there are many people that are not interested in arts or have negative attitudes toward them (McManus & Furnham, 2006). Therefore, the characteristics of people that are interested or disinterested in art activities are a concern of inquiry. However, rather than investigating the characteristics of ordinary individuals interested in arts, most of the studies in the literature are about artists or composers (e.g., Andreasen, 1987; Frantom & Sherman, 1999; Jamison, 1993) and reveal data for their psychopathology or neuropathology.

People may produce art without being a professional artist, or they may just consume arts without being involved in artistic production. Hence, besides the studies on artists, recent literature provides data on the characteristics of people who consume or/and produce art without being an arts expert. McManus and Furnham (2006) found that individuals involved in one form of aesthetic activity were also involved in others. In addition, they found a relationship between aesthetic activities and demographic variables such as gender, social class, age and education. According to their findings, females are more interested in literature and the performing arts and males are more likely to go to the cinema. They stated that the more people come from higher social class families, the more they participate in aesthetic activities. Moreover, youth and individuals taking specific music and arts education tended to participate in aesthetic activities more than middle-aged and older people. These findings are consistent with previous literature on the interrelationship of multiple forms of aesthetic activities (e.g., Boerdieu, 1969, as cited in McManus & Furnham, 2006: 556; Furnham & Chamorro- Premuzic, 2004), the social class and gender differences in cultural participation (DiMaggio, 1982; Katsillis & Rubinson, 1990), and the negative effect of science education on the cultural range and aesthetic activities of students (McManus, 2006).

With the emergence of the idea of art self-concept (ASC) as a result of the tremendous progress in the self literature, research on the characteristics of people interested in art have increased in recent literature. As it is proposed by Vispoel (1995) as an extension of the Marsh-Shavelson hierarchical model of self-concept, ASC means to feel positively about oneself in artistic activities. People with higher ASC are expected to consider themselves skilled in arts compared to other people and fields; feel confident in performing artistic tasks alone and in company of other people; welcome participation in art tasks; quickly and easily learn artistic tasks; accept or deny evaluative statements about their skills; perceive themselves as having a natural ability and perceive that other people approve this ability; perform well (e.g. receive high test scores, grades) in art; and plan future tasks in art (Vispoel, 1993). Since self-perceptions and people's actions are shaped by early interactions with the environment (Brigham, 1986; Higgins, 1991), self perceptions regarding art also could be expected to be influenced by early family experiences and environmental opportunities. According to Higgins (1991), children and young people evaluate their behaviors with regard to whether they do the same thing with their parents (especially the same sex parent). Besides, it is often the role of adults to facilitate and support the interests, motivations, and learning of children. Accordingly, family background is one of the most important variables to consider

when investigating the characteristics of people that are interested in art. However, in the literature on ASC, there were no findings about the family characteristics of people with high ASCs. However, the ASC literature has provided evidence of gender differences in ASC, indicating that women score higher in artistic domain of self (Vispoel & Forte Fast, 2000) and are better in music, dance, and dramatic artistic self-concepts than men (Vispoel, 1993; Vispoel & Forte Fast, 2000). In addition, ASC was found as related to self-esteem (Oğuz-Duran & Tezer, 2005) and wellness (Oğuz-Duran, 2006) in several studies. However, ASC is still a new interest area in the field that calls for further investigation.

Previous works in the field of arts participation mainly investigated Western countries, except Katsuura's study (2008) on determinants of arts participation in Japan, which reported similar results to previous research on Western countries. Education, income, age, gender, and occupation were found as factors that affect arts and cultural participation in Japan. However, whether the previously listed correlates of arts participation for Western countries remain valid in non-Western countries remains a challenging topic.

Investigating Turkish teacher trainees in terms of their behaviors, participation, and self concepts in arts seems as a concern of Turkish counselors providing services for teacher trainees for several reasons. First, based on earlier counseling literature, all arts that come from an emotional depth provide a process of self-discovery and insight (Rogers, 2001), two main purposes of counseling services. Both the ancient and recent counseling literature tend to glorify arts. For instance, the client-centered perspective of humanistic origins has a tradition of honoring arts. From this perspective, art can be used to encourage people for self-actualization via self-expression and integration of perception with an understanding of self and environment (Cochran, 1996). Moreover, the role of art in integrity and self-direction has been emphasized by most of the authors when describing the characteristics of self-actualized or fully functioning individuals (Resnick, Warmoth, & Serlin, 2001). Recent literature's interest in positive psychology also calls our attention to arts. With the positive paradigm a renewed focus on capabilities and potentials of the individuals rather than their problems, unresolved issues, or missed opportunities occurred, and concepts that emphasize human potential such as appreciation of beauty and art, and creativity have been investigated (Csikzentmihalyi, 2003; Seligman & Csikzentmihalyi, 2000). As a result, several studies suggest a strong contribution of arts on many personal and social characteristics (e.g., Oğuz-Duran, 2006; Heat & Soep, 1998; Hetland & Winner, 2001). Therefore, the relationship of teacher trainees with arts is a concern of counselors because of their professional commitment to the total development of the students and their role as a consultant to administrators and curriculum planners.

As a consequence, the purpose of the present study was to investigate behavior in arts activities (BAA; active production, passive consumption, and indifference toward arts), participation in art activities in free times (PAA), and ASC, among Turkish teacher trainees. More specifically, the purpose of this study was threefold—first to investigate teacher trainees in terms of their BAA and PAA; second, based on

earlier literature, to investigate these characteristics in relation to gender; and finally to examine demographic and familial factors that might predict ASC. Possible demographic and familial predictors of ASC were revealed through the existing Western literature. First, gender was selected as a demographic variable to be investigated in relation to ASC. Second, based on the idea that people's behavior is particularly influenced by their self-concept (Rogers, 1961), higher art production behavior is assumed to be a predictor of ASC. The contribution of family as a primary social agent in terms of their socio-economic characteristics and their guidance toward art was also examined. In addition, location (the place of residence in most of the subject's life) was used as a background variable that might be related to artistic activities and ASC because it may cause restrictions or opportunities and affect the development of self-concept. Since domain specific art self-concepts could be represented by a higher order creative arts factor (Yeung, McInerney & Russell-Bowie, 2001), the present study investigated ASC at a global level, without considering specific art domains such as music, visual art, dance, etc.

## Method

### *Participants*

The present study was conducted at the Faculty of Education of Middle East Technical University (METU). Participants were selected from volunteering sophomores and seniors from different departments of the Faculty of Education of METU. Junior students were not included since they may not be familiar enough with the city and university campus to use the opportunities for art participation. A total of 204 questionnaire packs were distributed to the sample in the fall semester of 2005-2006 school year. As a result of data cleaning procedures, five cases were omitted since missing values were greater than 5 % (Tabachnick & Fidell, 2001). Therefore, the final sample included 199 students (117 female, 82 male) from 19 to 25 years of age ( $\bar{X} = 22.03$ ,  $SD = 1.25$ ). Sophomores consisted of 21.1 % of the sample. Third and fourth grade students consisted of 40.2 % and 38.7 % of the sample, respectively.

### *Research Instruments*

*Art Self-Concept Scale.* The measure of art self-concept used in this study was the Art Self-Concept Scale (ASCS) developed by Oğuz-Duran and Tezer (2005) based on Vispoel's (1993) Arts Self-Perception Inventory. Different than Vispoel's scale, ASCS items measure the self perceptions of an individual in artistic activities without identifying art modalities. The ASCS is a 10-item Likert type scale for measuring art self-concept with alternatives ranging from (1) Strongly disagree to (5) Strongly agree. Higher scores indicate more positive art related self-evaluations. The construct validity of the scale was investigated by employing Principle Component Analysis with Varimax rotation indicating the unidimensional nature of the scale. The correlation between ASCS and the self-esteem measure was significant ( $r = .15$ ,  $p < .05$ ), whereas the correlation between ASCS and the social desirability measure was not significant ( $r = .03$ ) indicating further evidence for the validity of the scale. The

internal consistency coefficient was .92. Test-retest reliability with one month interval was found as .74 (Oğuz-Duran & Tezer, 2005). In the present study, the Cronbach Alpha coefficient for ASCS was .93, indicating a satisfactory level of reliability for the present study.

*Demographic Information Sheet.* Participants also were given a 10-item demographic questionnaire designed to gather demographic and background information on the participants. In addition to basic demographics such as age and gender, this questionnaire also was used to gain information about family SES, location (metropolis, city, town, village, and abroad) where participants spent most of their lives, family's guidance toward art activities, students' perception of PAA, and BAA. Parental education level and family income were used as two separate indices of SES. Family income was divided a priori into three levels as 1 (low), 2 (middle) and 3 (high). Level of parental education was measured separately for mothers and fathers on scales ranging from 1 (illiterate) to 8 (graduate level). In terms of BAA, students were asked to choose the best option to describe themselves among three categories (art producer, art consumer, indifference toward arts) of BAA. Students also were asked whether they could sufficiently participate in art activities in their free time, and whether their families guided them toward any art activities.

#### **Procedure**

The instruments were administered to the students in classrooms. The purpose and value of the study were introduced and anonymity of data collection, that there were no right or wrong answers, and that participation was voluntary was emphasized. The administration took 15-20 minutes.

#### **Data Analysis**

In addition to descriptive statistics such as frequencies, percentages, means, and standard deviations, the present study calculated chi-square ( $\chi^2$ ) analyses and Pearson product-moment correlations for the relationships among the variables. Moreover, ANOVA was used to compare gender groups on ASC, and stepwise regression analyses were conducted to examine the predictors of ASC. Analyses were performed using the Statistical Package of Social Sciences (SPSS, version 13.0).

## **Findings and Results**

### ***The Description of the Demographic Characteristics of the Participants***

Mean, median, and standard deviation for the continuous variables, and frequencies and percentages for the categorical variables of the study were calculated. The mean was 29.26, and the median was 29.0 for the ASCS scores (SD = 8.59). Table 1 shows a detailed summary of the demographics of the participants.

**Table 1**

*Demographic and Background Characteristics of the Participants*

Variable	Group	N	%
Gender	Female	117	58.8
	Male	82	41.2
Location (in most of life)	Metropolis	73	36.7
	City	64	32.2
	Town	45	22.6
	Village	17	8.5
Family income	Low	13	6.5
	Medium	162	81.4
	High	24	12.1
Mother's education	Illiterate	13	6.5
	Literate, no degree	19	9.5
	Elementary	87	43.7
	Middle	16	8.0
	High	42	21.1
	Undergraduate	21	10.6
	Graduate	1	0.5
Father's education	Illiterate	3	1.5
	Literate, no degree	7	3.5
	Elementary	59	29.6
	Middle	30	15.1
	High	45	22.6
	Undergraduate	47	23.6
	Graduate	8	4.0
Family's guidance	Yes	57	28.6
	No	142	71.4
BAA	Consumer	122	61.3
	Producer	71	35.7
	Indifferent toward art	6	3.0
PAA	Yes	62	31.2
	No	137	68.8

As seen in Table 1, the sample of the study included 58.8 % females and 41.2 % males. None of the students lived most of their lives abroad. Thus, this category was excluded from the further analyses. 36.7 % of the students have lived in metropolises, 32.2 % in cities, 22.6 % in towns, and 8.5 % in villages. Most of the students (81.4 %)

classified their family income as medium, while 6.5 % of the students reported low and 12.1 % of the students reported high. In terms of mothers' education level most of the students' mothers (43.7 %) have an elementary level degree, while 6.5 % were illiterate, 9.5 % were literate but have no degree. The rest, 8 %, 21.1 %, 10.6 %, and 0.5 % were graduated from middle school, high school, undergraduate, and graduate level, respectively. In terms of fathers' education level, most of the students' fathers (29.6) have an elementary level degree. 1.5 % of the students reported their fathers as illiterate, 3.5 % as literate but having no degree, 15 % as graduated from middle school, 22.6 % as graduated from high school. In undergraduate and graduate levels, fathers' education levels were higher than mothers' education levels with percentages of 23.6 and 4, respectively. On the category of the families' guidance toward arts, most of the students (71.4 %) reported no guidance, while approximately 29 % reported that their families guided them toward arts in several ways. Concerning BAA, nearly 62 % of the sample reported themselves as being related to art as an art consumer, and approximately 36 % of the sample reported themselves as active art producers. Only 3 % of the sample reported no interest in arts. Finally, approximately 70 % of the students said they could not participate in art activities in their free time, whereas 31.2 % reported sufficient participation.

#### *The role of gender in BAA, PAA, and ASC*

In order to investigate BAA, PAA, and ASC among females and males, a  $\chi^2$  analysis was performed to compare gender groups on the two categories (consumer, producer) of BAA. The "indifferent" category of BAA was excluded from the analysis to avoid violating the assumptions of  $\chi^2$  concerning the "minimum expected cell frequency" which should be 5 or greater. The analysis revealed no significant relationship between gender and BAA. Afterward, another  $\chi^2$  analysis was performed to investigate the relationship between PAA and gender. This analysis revealed a significant relationship, indicating that the proportion of males that reported sufficient PAA is significantly higher than the proportion of females that reported sufficient PAA. Results are presented at Table 2.

**Table 2**  
*Comparison of Females and Males on BAA and PAA*

Variable	(% ) BAA		$\chi^2$	P	(% ) PAA		$\chi^2$	P
	Consumer	Producer			Sufficient	Insufficient		
Gender			3.55	0.60			9.578	0.002*
Female	57.4	42.6			22.7	77.8		
Male	71.8	28.2			43.9	56.1		

p < .01

Finally, a one-way ANOVA was conducted to explore the effect of gender on ASCS scores of teacher trainees. The results indicated a statistically significant difference in ASCS scores for two gender groups [ $F(1,197)=11.91, p=.001$ ]. Females scored significantly higher on ASCS ( $\bar{X} = 30.97$ ) than males ( $\bar{X} = 26.81$ ).

#### *Predictors of ASC*

Based on the finding that gender has a significant effect on ASCS scores, two stepwise regression analyses were performed separately for females and males. First, dummy coding for the dichotomous variables (BAA and family guidance toward art) were done. Two categories (consumer, producer) of BAA were used in the analyses due to the limited number of students at the third category (indifferent). Thereafter, multivariate outliers were analyzed by using Mahalanobis distance, but no outliers were found. Additionally, normality was examined through descriptive statistics and visual inspection of data. Finally, intercorrelations among predictor variables (Stevens, 2002), and tolerance and VIF values were taken into account while checking multicollinearity. Since intercorrelations above .80 (Jacop, 1969) and tolerance less than .20 and VIF higher than 4 (Stevens, 2002) signal a possible problem, after all the investigations, no violations for any of the assumptions of multiple regressions were detected for the present data. The results of the bivariate correlations among the variables are presented in Table 3.

Table 3  
*Bivariate Correlations among Variables of the Study*

	Family income	Mother's education	Father's education	Location	Family's guidance	BAA	ASC
Family income	1	.317**	.279**	-.125	.151*	.049	.039
Mother's education		1	.666**	-.105	.379**	.146*	.146*
Father's education			1	-.071	.391**	.160*	.125
Location				1	-.057	-.079	.039
Family's guidance					1	.285**	.357**
BAA						1	.597**
ASC							1

\*\*  $p < .01$ , two tailed; \*  $p < .05$ , two tailed.

As seen in this Table 3, the higher correlation coefficients were detected between fathers' and mothers' education level and ASCS and dummy coded BAA scores. ASCS scores also were found significantly correlated with family's guidance and mothers' education level. However, these correlations were not high.

Then, the first stepwise regression analysis was conducted to examine the demographic and familial predictors of ASCS scores of females. The results indicated that only one variable, BAA, was meaningful to ASCS scores [ $F(1, 113)= 62.304$ ,



$p < .001$ ], accounting for approximately 36 % of the variance. This result indicates that female students that describe themselves as art producers tended to have higher scores on ASCS. Table 4 shows this information.

**Table 4**  
*R and R<sup>2</sup> Change Predicting the ASCS Scores*

Variable	Multiple R	R <sup>2</sup>	Adjusted R <sup>2</sup>	R <sup>2</sup> Change	F Change	df 1	df 2	Sig.
BAA	.596	.355	.350	.355	62.304*	1	113	.000

\* $p < .001$

Another stepwise regression was performed to evaluate the predictors of ASCS scores of males. Three variables contributed meaningfully to ASCS scores. These variables account for 43 % of the total variance [ $F(1,75) = 5.025$ ,  $p < .05$ ]. BAA seems the best predictor of ASCS scores by accounting for 32 % of the variance. The results are presented in Table 5. These results suggest large effects according to Cohen (1988). Although family guidance toward art activities and location were also significant predictors, their effects seem as small (Cohen, 1988).

**Table 5**  
*R and R<sup>2</sup> Change Predicting the ASCS Scores*

Variable	Multiple R	R <sup>2</sup>	Adjusted R <sup>2</sup>	R <sup>2</sup> Change	F Change	df 1	df 2	Sig.
BAA	.569	.324	.315	.324	36.836	1	77	.000*
BAA	.629	.395	.379	.072	9.026	1	76	.004**
Family's guidance								
BAA	.658	.433	.411	.038	5.025	1	75	.028***
Family's guidance								
Location								

\* $p < .001$ ; \*\* $p < .01$ ; \*\*\* $p < .05$

## Conclusions and Recommendations

This study provides information regarding the relationship of Turkish teacher trainees with arts. The results revealed relatively high art consumption, but low art production behaviors among teacher trainees. Indifference toward arts was quite rare. A great deal of teacher trainees reported insufficient arts participation and females constituted the majority of this group. Nevertheless, females tended to have better art self-concepts than males. Moreover, although art producing behavior was the best predictor of art self-concept for both gender groups, for male teacher trainees

it is possible to mention the small effects of a family's guidance toward arts and the place of residence on art self-concept.

The results of the present study on gender differences that demonstrate that females perceive themselves better in arts than males are consistent with existing literature. Although most artists throughout history, except for a slightly lesser number in the past centuries, have tended to be males (McManus & Furnham, 2006), studies on arts participation (Katsuura, 2008; McManus & Furnham, 2006) and ASC (Vispoel, 1993; Vispoel & Forte Fast, 2000) revealed significant differences in favor of females. Katsuura (2008) stated that the reason for this difference is not obvious. Females might be inherently interested or talented in arts or they might be affected by early socialization processes. If the difference between gender attitudes is due to different past experiences and socialization processes, then it means that gender may not affect arts participation when all factors (including past experiences) are controlled (Katsuura, 2008). Considering the changeable nature of the self-concept (Rogers, 1959, 1961), it is possible to change the art self-concepts of potential teachers from negative to positive despite their past experiences. Therefore, providing male teacher trainees with opportunities to improve their art self-concepts can be the focus of future studies.

Comparing these findings with the other findings of this study on the predictors of art self-concept might be interesting. For instance, this study points out that the place of residence where the students have spent most of their lives was relevant to the art self-concepts of males along with their art production behaviors and their family's guidance. This result indicates that for positive self-perceptions in the field of arts, males need to be supported by their families and have opportunities in their near surroundings, but these factors are not essential for females. This finding doubled the importance of providing male teacher trainees with opportunities to participate in arts and improve their art self-concepts.

Another finding regarding gender indicated that although females perceive themselves as better in arts than males, they do not produce or consume arts more than males. Considering the power of art production behavior on the prediction of art self-concept, and the existing self literature on the effects of self-concept on human behaviors (Rogers, 1961) it can be concluded that if females perceive themselves as better in arts than males, they are more likely to produce arts than males. Therefore, the possible reasons for limited art production among female teacher trainees could be investigated in further studies.

Although the previous literature underlined the effects of SES on aesthetic and cultural involvement (DiMaggio, 1982; Katsillis & Rubinson, 1990; McManus & Furnham, 2006), in the present study it was seen that parents' income or education level, two indicators of SES, cannot predict ASC. According to the literature, individuals from higher social class families are likely to be more aesthetically active, perhaps due to childhood learning experiences (McManus & Furnham, 2006). Moreover, they are more likely to have the ability to pay for arts participation (Katsuura, 2008). On the other hand, as stated by DiMaggio (1982), coming from low status families became a source of motivation for participation in arts and cultural

activities, especially for males, since these activities provide upward social mobility. The present study gives rise to thought that neither high level education nor the ability to pay for art could ensure higher arts participation, production, and consumption for Turkish parents. Hence, teacher trainees may not have suitable childhood experiences with art due to their well educated and wealthy parents. Nor have they inclined toward art for social mobility. Further studies may provide important insights regarding the cultural reasons for these findings.

The commonality of art consumption behavior among teacher trainees presented in this study also was consistent with earlier literature on the effects of age in arts participation. According to McManus and Furnham (2006), higher age resulted in declining aesthetic activity due to simple lack of time in older subjects with families, or perhaps a lack of opportunity or mobility, or other constraints. The study sample consisted of university students, an advantaged population in terms of arts participation. In addition, this study's sample was found in an old and prestigious state university in the capital city of Turkey with a modern campus equipped with advanced facilities. Therefore, the university and the city might provide additional opportunities to teacher trainees to participate in arts activities. Despite the broad art consumption behavior among teacher trainees, a huge amount of subjects reported insufficient participation in art activities in their free time. Therefore, examining the possible reasons for insufficient arts participation among teacher trainees such as work load and time management habits, etc., might be a subject of further studies. Considering the finding that females reported significantly more insufficient arts participation than males, an investigation of female teacher trainees' reasons for insufficient arts participation could be important for future research. For instance, females might not participate in fewer art activities than males, but they may perceive their participation insufficient. Therefore, asking the number and quality of participation in art activities rather than asking whether or not the subject perceives his/her own participation as sufficient is recommended for further studies.

Despite the common art consumption behavior, art production behavior was limited among teacher trainees. Taking into account the findings on the prediction of art self-concept from art production behavior, it can be concluded that high art self-concept is also inadequate among teacher trainees. As stated by McKean (2001), when teachers view the arts too much from the perspective of requiring special talents found only in a few individuals, they acknowledge feelings of inadequacy and inaccessibility. Therefore, based on the findings of the present study, providing teacher trainees opportunities for positive experiences in arts (i.e., elective art courses) and helping them develop positive self-evaluations in arts by appropriate counseling services might be taken into consideration by curriculum designers and counselors in higher education. Consequently, teacher trainees may perceive themselves as adequate and want to participate in art activities and production.

One of the most satisfying findings of this study was the very limited number of teacher trainees that are indifferent toward arts. Considering the interrelationship between multiple forms of cultural and aesthetic involvement (e.g., Boerdieu, 1969; in McManus & Furnham, 2006: 556; Katsuura, 2008), it can be assumed that art

consumer and producer teacher trainees that made up nearly all of this study's sample will participate in several forms of arts and cultural activities that will contribute eventually to their personal development. Moreover, this finding is promising for counselors that use arts in counseling practices, knowing the holistic quality of arts to connect mind, body, and spirit, and appreciating the potential of arts to help people develop, change, integrate, be self-aware, and/or transcendent. Being aware of the client population's relationships with arts might light the way for counselors when deciding to use arts.

Finally, there are two limitations that need to be acknowledged regarding the present study. The first limitation concerns the study sample. This study was carried out with undergraduate students in METU. For this reason, the results cannot be generalized to other teacher trainees in Turkey. For further research, it is suggested that the sample include students from various universities across the country to be more nationally representative. Second, while classifying art activities of individuals, two groups appeared in the present study as art consumers and art producers. Due to the small sample size of students that indifferent toward arts, it was not possible to compare those students with arts consumers and art producers. Therefore, further studies with large sample sizes could be conducted with these comparisons.

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### References

- Andreasen, N.C. (1987). Creativity and mental illness: Prevalence rates in writers and their first-degree relatives. *American Journal of Psychiatry*, 144,1288-1292.
- Brigham, J. (1986). *Social psychology*. Boston: Little, Brown & Co.
- Cochran, J. L. (1996). Using play and art therapy to help culturally diverse students overcome barriers to school success. *School Counselor*, 43(4), 287-299.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. New York: Wiley.
- Csikszentmihalyi, M. (2003). Legs or Wings? A Reply to R.S. Lazarus. *Psychological Inquiry*, 14(2), 113-115.
- DiMaggio, P. (1982). Cultural capital and school success: The impact of culture participation on the grades of U.S. high school students. *American Sociological Review*, 47, 89-201.
- Eccles, J.S., Barber, B.L., Stone, M., & Hunt, J. (2003). Extracurricular activities and adolescent development. *Journal of Social Issues*, 59(4), 865-889.
- Frantom, C. & Sherman, M.F. (1999). At what price art? Affective instability within a visual art population. *Creative Research Journal*, 12(1), 15-23.

- Furnham, A. & Chamorro- Premuzic, T. (2004). Personality, intelligence, and art. *Personality and Individual Differences*, 36, 29-38.
- Grytting, C. (2000). The benefits of art education. *Arts and Activities*, 127(3), 66.
- Heath, S. & Soep, E. (1998). Youth development and the arts in non-school hours. *Grant Makers for the Arts*, 9(1), 9-32.
- Hetland, L. & Winner, E. (2001). The arts and academic achievement: What the evidence shows, executive summary. *Arts Education Policy Review*, 102(5), 3-6.
- Higgins, E. T. (1991). Development of self-regulatory and self-evaluative processes: Costs, benefits, and tradeoffs. In M. R. Gunnar & L. A. Sroufe (Eds.), *Self Processes and Development* (pp.125-166). The Minnesota symposia on child development. Hillsdale, NJ: Erlbaum.
- Jacob, C. (1969). *Statistical power analysis for the behavioral sciences*. NY: Academic Press.
- Jamison, K.R. (1993). Suicide and manic-depressive illness in artists and writers. *National Forum*, 73(1), 28-31.
- Katsillis, J. & Rubinson, R. (1990). Cultural capital, student achievement, and educational reproduction: The case of Gracee. *American Sociological Review*, 55, 270-279.
- Katsuura, M. (2008). Examining arts participation in Japan using the survey on time use and leisure activities. *Asia Pacific Journal of Arts and Management*, 5(1), 343-361.
- McKean, B. (2001). Concerns and considerations for teacher development in the arts. *Arts Education Policy Review*, 102(4), 27-32.
- McManus, I.C. & Furnham, A. (2006). Aesthetic activities and aesthetic attitudes: Influences of education, background and personality on interest and involvement in the arts. *British Journal of Psychology*, 97, 555-587.
- McManus, I.C. (2006). Measuring the culture of CP Snow's Two Cultures. *Empirical Studies of the Arts*, 24, 219-227.
- Oğuz-Duran, N. (2006). *Wellness among Turkish University Students: Investigating the Construct and Testing the Effectiveness of an Art-based Wellness Program*. Unpublished doctoral dissertation, Middle East Technical University, Ankara.
- Oğuz-Duran, N., & Tezer, E., (2005). Sanat Benlik-Kavramı Ölçeği'nin Geçerliliği ve Güvenirliliği Üzerine Bir Çalışma. [Validity and reliability study of Art Self-Concept Scale]. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 3 (23), 47-55.
- Powell, M.C. (1997). The arts and the inner lives of teachers. *Phi Delta Kappan*, 78(6), 450-454.
- Resnick, S., Warmoth, A., & Serlin, I.A. (2001). The Humanistic Psychology and Positive Psychology Connection: Implications for Psychotherapy. *Journal of Humanistic Psychology*, 41(1), 73-102.
- Rogers, C.R. (1961). *On becoming a person*. Boston: Houghton Mifflin.

- Rogers, N. (2001). Person-centered expressive art therapy. In Rubin, J.A. (Ed). Approaches to art therapy: Theory and technique (2<sup>nd</sup> Ed.)163-177. Philadelphia: Brunner-Routledge.
- Seligman, M., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55, 5-14.
- Sağ, R. (2008). The expectations of student teachers about cooperating teachers, supervisors and practice schools. *Eğitim Araştırmaları-Eurasian Journal of Educational Research*, 32, 117-132.
- Stevens, J.P. (2002). Applied multivariate statistics for the social sciences. (4<sup>th</sup> Ed.). Mahwah, New Jersey: Lawrence Erlbaum Associates, Publishers.
- Tabachnick, B., & Fidell, L.S. (Eds). (2001). *Using Multivariate Statistics* (Fourth ed.). Boston: Allyn & Bacon.
- Vispoel, W.P. (1993). The development and validation of the arts self-perception inventory for adolescents. *Educational and Psychological Measurement*, 53(4), 1023-1034.
- Vispoel, W.P. (1995). Integrating self-perceptions of music skill into contemporary models of self-concept. *Journal of Educational Psychology*, 87, 134-153.
- Vispoel, W.P., & Forte Fast, E.E. (2000). Response biases and their relation to sex differences in multiple domains of self-concept. *Applied Measurement in Education*, 13(1), 79-97.
- Winner, E. & Cooper, M. (2000). Mute those claims: No evidence (yet) for a causal link between arts study and academic achievement. *Journal of Aesthetic Education*, 34(3-4), 11-75.
- Winner, E. & Hetland, L. (2000). The arts in education: Evaluating the evidence for a causal link. *Journal of Aesthetic Education*, 34(3-4), 3-10.
- Yeung, A.S., McInerney, D.M., & Russell-Bowie, D. (2001). Hierarchical, multidimensional creative arts self-concept. *Australian Journal of Psychology*, 53(3), 125-133.

## Öğretmen Adaylarının Sanatsal Davranış, Sanatsal Katılım Ve Sanatsal Benlik Kavramları Üzerine Bir Araştırma

### (Özet)

*Problem Durumu:* Öğretmenler hem öğrencileri hem de içinde yaşadıkları toplumu olumlu yönde değiştirme sorumluluğu taşırlar. Alan bilgisi ve pedagojik bilgilerini kullanarak öğrencilerinin entelektüel, duyuşsal, sosyal ve tinsel gelişimlerinde rol oynamalarının yanı sıra, öğretmenler öğrencileri için önemli birer rol modeli de oluştururlar. Bu nedenle, öğretmen adaylarının yetiştirilmesi sürecinde, konu alanı ve etkili öğretmenlik konusundaki gelişimleri kadar, kişisel gelişimleri de önem taşımaktadır. Öğrencilerin sanata zaman ayırmaları ve sanat alanında eğitim almaları, sanatın bireylerin çeşitli alanlardaki zekâlarına,

yaratıcılıklarına, akademik başarılarına, kendilerini ifade güçlerine ve akademik başarı, öz-saygı, öz-güven, doyum vb. pek çok kişisel ve sosyal özelliklerine olan olumlu katkıları nedeniyle pek çok eğitimci tarafından önerilmektedir. Bu bakımdan, öğretmen adaylarının sanatsal etkinliklere katılıma yönelik davranışlarının incelenmesi önemli görülmektedir. Literatürde, son dönemde sanatçı olmayan bireylerin sanatla ilişkilerinin araştırılmasına yönelik bazı araştırmaların bulguları sanatsal etkinliklere katılma eğilimi, sosyal sınıf, yaş ve eğitim değişkenleri ile ilişkili olduğunu, ayrıca herhangi bir sanatsal etkinliğe katılan bireylerin başka türden sanatsal etkinliklere de katılma eğilimleri bulunduğunu göstermektedir. Son yıllarda hızla gelişen benlik kavramı literatüründe, bireylerin sanat alanında kendilerini algılamalarından oluşan sanatsal benlik-kavramının tartışılmaya başlanması da sanatla ilgilenen bireyler hakkındaki araştırma bulgularının artmasını sağlamıştır. SBK literatürü de bu alanda kızların lehine bir cinsiyet farkı bulunduğunu, ayrıca bu kavramın benlik-saygısı ve iyilik hali gibi kavramlarla da ilişkili olduğunu ortaya koymaktadır. Bireylerin kendilerine ilişkin algılamalarının ve bunların sonucu olan davranışlarının, yaşamlarının erken dönemlerinde çevreleriyle olan etkileşimlerinden büyük ölçüde etkilendiği göz önüne alındığında, sanat alanındaki benlik algılamalarının da bireylerin erken yıllardaki aile etkileşimlerinden ve çevresel olanaklarından etkilendiği düşünülebilir. Ancak, literatürde olumlu bir SBK'ya sahip bireylerin ailelerinin özelliklerine ilişkin bir bulguya rastlanmamaktadır. Ayrıca, bireylerin sanatsal etkinliklere katılımları konusunda geçmişte yürütülen araştırmalar çoğunlukla batılı toplumlar üzerinde yapılmıştır. Batıda sanatsal davranışlarla ilişkili bulunan değişkenlerin batılı olmayan kültürlerde geçerliğini koruyup korumadıkları başka araştırma bulgularıyla da desteklenmeyi beklemektedir. Öğretmen adaylarını sanatsal davranış, katılım ve benlik kavramlarının incelenmesi, psikolojik danışmanların bu öğrencilerin bütünsel gelişimleri ile olan ilgileri ve eğitim yöneticileri ve programcılarının müşavirlik etme görevleri bakımından önem taşımaktadır.

*Araştırmanın Amacı:* Bu araştırmada Türk öğretmen adaylarının sanatsal davranışları (SD; sanat tüketimi, sanat üretimi, sanatsal etkinliklere ilgisiz kalma), sanatsal etkinliklere katılımları (SEK) ve sanatsal benlik kavramlarının (SBK) incelenmesi amaçlanmıştır. Ayrıca mevcut literatüre dayanarak araştırmada bu özelliklerin cinsiyete göre ele alınması ve SBK'nin demografik ve ailesel yordayıcıların incelenmesi de amaçlanmıştır. *Araştırmanın Yöntemi:* Çalışma, Orta Doğu Teknik Üniversitesi (ODTÜ) Eğitim Fakültesinin çeşitli bölümlerinde okumakta olan ve araştırmaya katılmaya gönüllü olan 199 (117 kız, 82 erkek) öğrenci üzerinde yürütülmüştür. Araştırmada öğretmen adaylarının sanatsal benlik kavramlarını ölçmek amacıyla Sanatsal Benlik-Kavramı Ölçeği (SBKÖ), demografik bilgileri toplamak için ise 10 maddelik bir Kişisel Bilgiler Formu (KBF) kullanılmıştır. Verilerin çözümlenmesinde betimleyici

istatistiklerin yanı sıra kay kare, ANOVA, pearson momentler çarpım korelasyon tekniği ve aşamalı regresyon analizinden yararlanılmıştır.

*Bulgular:* Bu araştırmanın bulguları, SD bakımından öğretmen adaylarının büyük bir kısmının (%61.3) kendilerini sanat tüketicisi olarak tanımladıklarını, sanatsal üretimde bulunanların ise yaklaşık %36'lık bir grup olduğunu göstermiştir. Sanatla hiçbir biçimde ilgilenmediklerini bildiren kişilerin oranı ise %3'tür. Öğretmen adaylarının büyük bölümü boş zamanlarında sanatsal etkinliklere katılımlarının yeterli olmadığını bildirmiştir; bu grubun çoğunu kızlar oluşturmaktadır. Bununla birlikte kızların sanat alanında kendilerini algılamaları erkeklerinkinden anlamlı derecede daha olumludur. Olumlu sanatsal benlik kavramının yordayıcılarının da kız ve erkek öğrenciler için farklılaştığı görülmüştür. Sanatsal üretim her iki cins için de sanatsal benlik kavramının en güçlü belirleyicisi olmakla birlikte, erkek öğretmen adaylarında yaşamın çoğunun sanatsal etkinliklere katılım açısından daha elverişli olanaklara sahip büyük yerleşim yerlerinde geçirilmiş olması ve aile tarafından sanatsal etkinliklere yönlendirilme faktörlerinin, etkileri zayıf olmakla birlikte anlamlı yordayıcılar oldukları görülmüştür.

*Sonuç ve Öneriler:* Bu araştırmanın bulgularına dayanarak bundan sonra yürütülecek araştırmalar ve öğretmen adayları için düzenlenecek rehberlik ve psikolojik danışma hizmetleri için çeşitli önerilerde bulunulabilir. Örneğin, bu çalışmada erkek öğretmen adaylarının kızlarla kıyaslandığında anlamlı düzeyde daha düşük sanatsal benlik algısına sahip oldukları görülmüştür. Bu nedenle, özellikle bu grubun sanatsal benlik algılarını geliştirmeye yönelik olanaklar ve çalışmalar (örneğin sanatsal olarak kendilerini daha olumlu algılamalarına olanak sağlayacak seçilmiş derslerin açılması, rehberlik ve danışma hizmetlerinin verilmesi vb.) artırılabilir.

Araştırmanın bir başka bulgusuna göre, kız öğretmen adayları erkeklerden daha olumlu sanatsal benlik algısına sahip oldukları halde, sanatsal üretimleri erkek öğretmen adaylarından anlamlı ölçüde daha fazla değildir. Gelecekte yürütülecek araştırmalarda kız öğretmen adaylarının, olumlu bir sanatsal benlik kavramına sahip olmalarına rağmen sanatsal üretimlerinin düşük olmasının nedenleri araştırılabilir.

Araştırmada, literatürde vurgulanan yaş dönemi özellikleri ile tutarlı olacak bir biçimde, katılımcıların çoğu sanat tüketicisi olduklarını bildirmişlerdir. Ancak araştırmanın bir başka bulgusunda da katılımcıların %69'unun boş zamanlarında sanatsal etkinliklere katılmadıklarını bildirdikleri görülmektedir. Yetersiz sanatsal katılım bildiren grupta kızların anlamlı ölçüde fazla olması dikkat çekicidir. Bu bakımdan, başka çalışmalarda öğretmen adaylarının, özellikle de kızların, boş zamanlarında sanatsal etkinliklere katılmama nedenleri (örneğin, ders ve ödev yükünün fazlalığı, boş zaman değerlendirme alışkanlıkları vb.) araştırılabilir ve bu konuda gerekli önlemler alınabilir.



Batıda yapılan pek çok araştırmanın bulguları ailenin sosyo-ekonomik düzeyinin kişilerin sanatsal davranışları üzerinde etkisi bulunduğuna işaret ederken, bu çalışmada anne ve babanın eğitim düzeyleri ve ailenin gelir düzeyinin sanatsal benlik kavramını yordamadığı görülmüştür. Bu bulgunun olası kültürel nedenleri gelecek araştırmalarda ele alınmayı beklemektedir.

Ayrıca, ne üretici ne de tüketici olarak sanatla ilgili olan öğrencilerin yok denecek kadar az olması bu araştırmanın en sevindirici bulgularından biridir. Herhangi bir sanatsal etkinlik veya dal ile ilişkisi bulunan bireylerin diğer sanatsal etkinlikler ve sanat dalları ile de ilişkilerinin olma olasılığının yüksekliği bilindiğinden, öğretmen adaylarının sonuç olarak kişisel gelişimlerine katkısı olacak biçimde sanatla ilişki içinde olduklarını görmek psikolojik danışmanlar açısından önemlidir. Ayrıca, sanatın akıl, beden ve ruha aynı anda ulaşabilen bütünleştirici gücünü ve gelişme, değişme, bütünleşme, öz-farkındalık ve/veya aşkınlığa yönelik potansiyelini bilerek, yardımcı veya temel bir yöntem olarak danışma hizmetlerinde sanattan yararlanmak isteyen danışmanlar açısından, hitap ettikleri kitlenin sanatla ilişkilerini bilmek yararlı olacaktır. *Anahtar Sözcükler:* Sanatsal davranış, sanatsal katılım, sanatsal benlik kavramı, öğretmen adayları.

## Organizational Socialization of Secondary School Principals in Turkish Public Schools

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### Abstract

*Problem statement:* It is known that personal attitudes about a job acquired through organizational socialization have a positive influence on an employee's performance and effectiveness in the organization. Successful organizational socialization efforts increase an employee's job satisfaction and devotion to their job. The socialization of the administrator contains getting the elements of the culture as a new member, joining the active progression in the organization, and learning the various behavior roles and putting them into practice.

*Purpose:* The aim of this study is to find out the organizational socialization levels of principals in Turkish public schools.

*Method:* The study universe was composed of principals and assistant principals in secondary education institutions in the center districts of Ankara. The sample group consisted of 226 administrators. This evaluation used a one way variance analysis (ANOVA) with the aim of determining whether there is a meaningful difference stemming from the length of service.

*Results and Findings:* When the responses of school administrators were examined using the dimensions of job satisfaction, motivation, and devotion, it was observed that their socialization level increased as their seniority increased. Moreover, a meaningful difference was found in the three dimensions in the responses of school administrators according to their seniority. The averages of the responses of administrators in the acceptance dimension increase as seniority increases. In addition, no

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meaningful difference was found in responses to articles in the acceptance dimension.

*Conclusion and Recommendations:* The study discovered that the organizational socialization level of new administrators is low. A structure should be developed as a package based on the school to put organizational socialization into practice so administrators can accept the organizational reality in educational organizations.

*Keywords:* Organizational socialization, administrators, job satisfaction, motivation, devotion, acceptance.

The career development of individuals becomes more effective with organizational socialization at work. Personal attitudes about a job acquired through organizational socialization have a positive influence on the performance and effectiveness of an organization. Also, successful organizational socialization efforts increase an employee's job satisfaction and devotion to his or her job. These efforts also prevent employees from quitting (Chao, 2007). Besides, organizational socialization efforts not only teach employees the skills and roles necessary for effective job performance, but they also facilitate the adaptation of employees to the organization by giving them information about the organization's history, language, values, and policies (King, Xia, Quick & Sethi, 2005).

Organizational socialization is defined as the obedience of the individual to values and norms of the organization. Even though the teacher is regarded as the principal executive of works in educational organizations, the administrator makes the teacher conform to the organization. Organizational socialization of school administrators due to the adoption of a school's values and norms also may be an indicator for other employees at school. Therefore, determining the organizational socialization levels of school administrators is important for the future of education.

There have been a lot of research about organizational socialization. Some of these studies in education include Ashforth, 1998; Louis, 1980; Reichers, 1987; Allen & Mayer, 1990; Blau, 1988; Jones, 1986; Chatman, 1991; Wanous, Reichers & Malik, 1984; Dodd-McCue & Wright, 1996; Buono & Kamm, 1983; Hall, 1987; Hart, 1991; Griffin, Colella & Gaparaju, 2000; Riorden, Weatherly, Vandenberg & Self, 2001; Filstad, 2004; Kwesiga & Bell, 2004; Cooper-Thomas & Anderson, 2005; Gruman, Saks & Zweig, 2006; Saks, Uggerslev & Fassina, 2006; Blake, Sluss & Saks, 2007. Other research as been conducted in the education field by Kuhlman & Hoy, 1974; Zeichner & Tabachnick, 1985; Greenfield, Marshall & Reed, 1986; Hoy & Woolfolk, 1990; Kuzmic, 1993; Cherg & Pang, 1997; Johnson, 2001; Aiken, 2002; Browne & Ferrigno, 2003; Browne-Ferrigno, & Muth, 2004; Crow, 2007; Young, 2007.

Studies about organizational socialization in Turkish education literature are few and it is understood that this limited number of studies generally concentrate on the organizational socialization of teachers rather than administrators (Çelik, 1998; Zoba, 2000; Özkan, 2004; Kuşdemir, 2005; Özkan, 2005). Only Author is this the author's

last name? (2003), studies the socialization of primary school administrators as a second dimension along with the socialization of teachers. The purpose of this study is to reveal the organizational socialization levels of administrators at secondary education institutions in terms of their professional seniority by using the organizational socialization scale developed by Author is this the author's last name? (2003). The research intends to expose the organizational socialization levels of administrators at secondary education institutions (general and vocational high schools) whose experience in administration ranges between 1-5 years, 6-10 years, and 11 years or more.

### *Organizational Socialization*

Previous studies of organizational socialization show that socialization is a component of an organization; the concept of organizational socialization has come out because of this fact (Porter, Lawler, & Hackman, 1981, p. 162). It is understood from the relevant studies that the individual's adaptation to the organization is regarded as the main principle. Adaptation is considered in a double way in the literature. The first is the education process supplied to the individual by the organization (Schein, 1975, p. 168), and the second is the process experienced by the individual in learning the organizational values, attitudes, and behaviors (Chatman, 1991, p. 462). Also, when recent studies are examined, it can be seen that socialization is both learning and teaching (Feldman, 1980, p. 175). Other than the assistance supplied by the organization, the individual should be active in socialization (Morrison, 1993, p. 173). The definition of organizational socialization demonstrates the importance of the adaptation process. Achieving this process of adaptation is bound to make the individual go through a rigorous selection procedure, give him duties proper for his vocational experiences, develop his abilities and talents, and demonstrate the appropriate role behavior for the organization (Hellriegel, Slocum, & Woodman, 1998, p. 562; Feldman, 1980, p. 170; Nelson and Quick, 1997, p. 486).

### *Organizational Socialization of School Principals*

The socialization of the administrator involves learning the elements of the culture, joining the active progression in the organization, and discovering the various behavior roles and putting them into practice (Schein, 1992, p. 229). Going through the process of organizational socialization is necessary for school administrators to gain job experience and learn the culture and the social system of a school (Normore, 2003, p. 7). Weindling & Early (1987) suggest training programs for the socialization of new administrators. These programs may include activities such as visits of schools by newly assigned administrators, planned introductions, training courses about the job, preparing handbooks, and consultation activities given by experienced colleagues. In comparison with the other kinds of administrators, individual socialization practices for school administrators are more common and more possible. After completing the formal training programs, educational administrators experience a completely random and changeable socialization which is mostly unplanned and limited to school (Balci, 2000, p. 13-14). Organizational socialization efforts are important for the vocational development of school administrators, helping them achieve managerial success (Normore, 2003), establish

strong formal and informal communication in the school structure, and manage the school effectively (Glasspool, 2007).

## Method

### *Sample*

The sample consisted of secondary education administrators (principles, their chief assistants, and assistants) in the center districts of Ankara, Turkey. To reach the group of 675 people, e-mail addresses of all schools were taken from the address of ankara.meb@gov.tr. The questionnaires are sent via e-mail or applied to some respondents at the general provincial assembly of administrators. After subtracting the number of the questionnaires rejected by administrators and the incomplete questionnaires, a total of 226 questionnaires were evaluated. The administrative experience of 82 administrators ranged between 1-5 years; 64 had between 6-10 years of experience; and 80 of them had 11 years or more.

### *Scale and Data Analysis*

The organizational socialization scale developed by Author is this the author's last name? (2003) was used with administrators working at specific educational institutions, so it could be determined whether their levels of organizational socialization and the dimensions of socialization (job satisfaction, motivation, organizational devotion, and acceptance) change according to the professional seniority of the administrators at secondary education schools. There were 13 items in the scale's job satisfaction dimension, 16 items in the motivation dimension, 18 items in the devotion dimension, and 13 items in the acceptance dimension. All items carry a factor load of 30 and above in all dimensions. The coefficient of reliability (alpha) was calculated as 76 in the job satisfaction dimension, 87 in the motivation dimension, 80 in the devotion dimension, and 76 in the acceptance dimension. The mean and standard deviations related to the statements of organizational socialization dimensions are used to define the perception levels of the secondary education school administrators. One way variance analysis (ANOVA) is used in this evaluation to establish whether there is a meaningful difference stemming from the length of service (1- 5 years, 6- 10 years and 11 years and above).

## Results

In the job satisfaction, motivation, devotion and acceptance dimension, the variance analysis and Sheffe test results of secondary education administrators in terms of their seniority are presented in Tables 1 and 2. In Table 1, there is a statistically significant result among the answers given for the job satisfaction dimension [ $F(2,537)=3.022; P<.05$ ]. When the result of Sheffe test (Table 2) aimed at finding the source of the difference is examined, a significant difference is found between the administrators with 6-10 years of experience (44.65) and those with 11 or more years of experience (45.90). According to the professional seniority of the

administrators, there is a significant difference among the answers given for the motivation dimension [F (2,529)=3.50; P<.05].

**Tablo 1**

*Variance Analysis Results According to Length of Service*

Source	Total of the squares	sd	Average of the squares	F
<b><i>Job satisfaction</i></b>				
Among groups	352.699	2	117.388	
Within groups	859.12	391	56.069	3.089
Total	33211.8	393		
<b><i>Motivation</i></b>				
Among groups	499.466	2	246.235	
Within groups	35356.89	529	69.155	3.50
Total	35856.35	531		
<b><i>Devotion</i></b>				
Among groups	662.501	2	324.188	
Within groups	28110.29	519	54.616	5.05
Total	28773.30	521		
<b><i>Acceptance</i></b>				
Among groups	191.639	2	91.811	
Within groups	18151.69	505	31.401	2.49
Total	18343.32	507		

When the result of the Scheffe test is examined, a difference between administrators with experience of 6-10 years ( $X= 54.10$ ) and those with 11 or more years of experience (56.94) is seen. The difference stays the same between the administrators with 1-5 years of experience (53.75) and those with 11 or more years of experience (56.94).

**Table 2**  
Sheffe Test Results

Dimension	Seniority	N	Mean	Meaningful Difference
<i>Job satisfaction</i>	1.1-5 years	82	44.10	
	2.6-10 years	64	44.65	2-3*
	3.11 years and above	80	45.90	
<i>Motivation</i>	1.1-5 years	82	53.75	
	2.6-10 years	64	54.10	1-3*
	3.11 years and above	80	56.94	2-3*
<i>Devotion</i>	1.1-5 years	82	63.10	
	2.6-10 years	64	63.34	1-3*
	3.11 years and above	80	65.79	
<i>Acceptance</i>	1.1-5 years	82	40.90	
	2.6-10 years	64	41.08	
	3.11 years and above	80	41.76	---

There is a statistically significant result among the answers given by high school administrators for the items in the devotion dimension in terms of occupational seniority [F (2,519)=5.05; p<.05]. The examination of the Scheffe test results – which aims to find the source of the difference – reveals a significant difference between administrators with 1-5 years of experience (63.10) and those with 11 or more years of experience (65.79), and the administrators with 6-10 years of experience (63.34) and those with 11 or more years of experience (65.79). According to the information in the table, there is no meaningful difference among the answers given for the items in the

acceptance dimension in terms of seniority [ $F(2,507) = 2.49; p > .05$ ]. While the difference among groups is not statistically meaningful, it is understood from the table that the average of those having 1-5 years of service is 40.90, of those having 6-10 years of service is 41.08, and of those having 11 or more years of service is 41.76. Therefore, acceptance and socialization increase in parallel with seniority.

### Discussion and Conclusion

Ensuring the job satisfaction of education personnel is considered rather significant in increasing organizational socialization. Jones (1986, p. 266) states that there is a positive relation between job satisfaction and tactics of institutional socialization. It is already known that employees feel a high level of job satisfaction through successful socialization practices (Nelson & Quick, 1997, p. 488; Balcı, 2003, p. 12). Since job satisfaction is an important attitude concerning the job, it is a basic criterion in evaluating the attitudes and is used as a criterion for production, productivity, job negligence, and irregular attendance at work (Robbins, 1986, p. 98). In addition, since job satisfaction is regarded as one of the outcomes of successful socialization, the level of satisfaction becomes important in socialization practices for education personnel (Hellriegel et al., 1998, p.562).

The research found that school administrators individually make an effort to realize the organizational targets. When motivation is thought of as voluntarily trying to achieve organizational objectives, an administrator's endeavor becomes important for the future of our educational system (Robbins, 1986, p. 121). As it can be seen in the research, secondary education administrators with a low level of seniority get less "motivated," so the low level of their socialization attracts attention. One of the reasons for this is because their colleagues and upper administrators do not support them well enough to solve the problems they encounter. The way of overcoming this matter is providing effective organizational socialization. When the answers given for the questions about the motivation dimension by the administrators were checked, it could be seen that averages increase in parallel with seniority. As the length of service increases, the individual gets more experienced and motivated, which increases the level of organizational socialization. One of the results of successful socialization is showing high motivation in the occupation (Hellriegel et al., 1998, p. 562; Wanous, 1980, p. 198). One of the organizational socialization factors of new personnel especially is the necessity for creating a high motivation to get a higher performance from them (Wanous, 1980, p. 169). When this necessity is taken into consideration, the school administrators should learn two basic roles in organizational socialization. First, they should learn the roles of their own responsibilities, and second, they should learn the general culture of the school.

When considering the thesis of Morris and Steers stating that as the written rules and procedures of an occupation get more formal, the devotion level of the employee increases, it is revealed that devotion of administrators is high on the named topic according to research findings (Özden, 1997, p. 38). When organizational socialization is evaluated as "learning the rules," being educated, and the process of



teaching is important in an organization or in its lower units, it can be said—according to the results obtained—that secondary education administrators show devotion in “obeying the rules,” so their level of socialization on this matter is high (Can, 1999, p. 325). Besides conforming to the present regulations, following the professional innovations accelerates the studies of socialization. The activities of an administrator who has gained the spirit of being a researcher include benefiting from his informal communication with colleagues, education seminars, scientific periodicals, conferences, and books.

Previous research has claimed that an individual’s social relations in an organization are connected with the feeling of devotion (Özden, 1997, p. 38). Blau (1988) said that the quality of the relations between new and the old employees is important for the success of the organizational socialization strategies with new employees. The meaningfulness of a new administrator’s job relations and successes are related to the control mechanisms provided for them. One of the targets of organizational socialization is to create the ideal communication among the members of an organization. Communication opportunities help the new members learn the organization’s norms and helps the new members experience effective socialization as well (Porter et al., 1981, p. 165).

When looking at seniority in regards to the devotion dimension, it is understood that administrators with less experience generally become socialized by reflecting less devotion than others. It is possible to observe the same condition in the total of devotion. Therefore, as seniority increases, devotion to the occupation increases, and consequently organizational socialization increases. Feldman and Arnold (1983, p. 79) found that the devotion level of new employees is low and their optimism level about their accomplishment in the organization is also low, which consequently creates a problem. This matter is a serious problem for educational organizations. While opportunities for success at the beginning of the profession present a chance of promotion, a low interest level causes unsuccessful results. Therefore, organizations should develop a strategy of adaptation for inexperienced administrators. Although organizational socialization programs can make it easier for fresh administrators to adapt to their new positions, there is no program for inexperienced administrators in the Turkish Education System. However, establishing a formal adaptation program is important because it will strengthen organizational devotion by removing the worries of the administrators about their new positions.

In conclusion, this research found that organizational acceptance increases as seniority increases and the same is valid for the increase in the socialization level. The findings of dissatisfaction among administrators with the administration and inspection system are interesting. Inspection has significant functional dimensions such as guidance and evaluation in the professional development of the administrators and in their evaluation. Except for the two important functional dimensions of inspection which are explained above, the concentration of the inspection depends more on the dimensions of control and investigation and their ability to make the right decisions and have the technical sufficiency expected from them. In research conducted by Güneş (2001, p. 58), the question of “What is the

contribution of the inspection practices to the occupational development of the teachers in primary schools?" is answered as, "It doesn't have any contribution," by 45 percent of teachers and primary school administrators. People with the power of inspection should focus on the potential of administrators—the focal point in the education system. Similarly, Aydın (1993, p. 6) points out that the most striking feature of the modern inspection approach is the importance given to human sources.

In the hierarchical structure of education, all administrators are considered consultants, "superior" officers, and people who have solutions to problems besides being an educational leader. Such an impression causes the formation of expectations. The low level of the secondary education administrators' answers may stem from the hard hierarchical structure of the Turkish education system, the restraints of making decisions in the school setting, the disallowance of flexibility in the curriculums, or the fact that all decisions are made in the administrative centers. Developing a structure based on schools in putting the administrative processes into practice may be helpful in improving the present negative situation.

It is necessary to put organizational socialization into practice as package programmes so administrators can accept the organizational reality in educational institutions. The research shows that an employee feels nervous and disappointed in the early period of organizational learning due to the conflict between reality and idealism, the first step in occupational development. Most young administrators experience difficulties when they notice this situation. The young administrators are also disappointed with the insufficient support of the inspection and administration bodies and with their inefficiency in carrying out their responsibilities in guidance. Using the tactics of collective, fixed, and investiture (Allen, 2006) and assigning mentors and the other administrators (Crow, 2007) will be major factors in increasing the socialization levels of the new administrators in particular.

Sufficient formal training programs are not carried out for the socialization of the school administrators in the Turkish education system. The new administrators are influenced especially by the other administrators in an informal way. Although the experienced administrators negatively affect the inexperienced ones, there are cases in which experienced administrators have positive effects such as increasing the motivation of their colleagues by encouragement (Schein, 1992, p. 170). After being a member of the organization, most principals learn the different behaviors by accident or by practicing them themselves. As stated by Porter et al. (1998, p. 170), this side of socialization is conducted with the least cost although it is not systematic like formal socialization activities. Filstad (2004), Baruch and Winkelmann- Gleed (2002) discovered that new employees see the other employees of the organization as models and they get experience by modeling them. Therefore, there is a direct relationship between organizational socialization and job experience. Glasspool (2007) states that experience helps school administrators in preparing for any possible problems. It is revealed that experience is effective for the formation of administrators' leadership characteristics (Boon & Stott, 2003) and school administrators' skills of occupational leadership develop as they perform their duties (Normore, 2004).

In spite of the importance of organizational socialization in the adaptation of the individual to an organization, the study concluded that generally, socialization is not at demanded levels. The same may be said for job satisfaction, motivation, devotion and accepting the organization, important determinants of organizational socialization. Furthermore, the organizational socialization level of administrators with less seniority is low, but this level increases as with more seniority.

As a result of the research, the fact that the socialization level of administrators with less seniority is low is important and socialization activities should be applied to these administrators. Various models on organizational socialization have been suggested by the literature. Feldman (1976), Buchanan (1974), Porter, Lawler & Hackman (1975), Schein (1978), and Wanous (1980) support the stage model in socialization (Hart, 1991, p. 460; Wanous et al., 1984, p. 672; Jones, 1986, p. 262; Buono & Kamm, 1983, p.1127; Blau, 1988, p. 177-179; Balci, 2003, p. 80; Wanous, 1980, p. 174). According to these authors, as long as the individual stays in the organization and gets a certain education and experience, there is an increase in his or her level of organizational socialization. In terms of the study, Buchanan's three-stage model (1974), "The Model of First Job," states that personal success will increase in the fifth year and afterward, or as the length of service increases. It is during this stage that an employee gains experience with the group, makes a positive impression on the others, and starts to show his difference from the others. In contrast to Buchanan's study, the idea that organizational socialization will increase in parallel with the length of service is taken as the main starting point in this study, and the findings support this idea. The most significant finding of this study is that socialization increases as the length of service increases.

## References

- Aiken, J. (2002). The socialization of new principals: another perspective on principal retention. *Education Leadership Review*, 3, 32-40.
- Allen, D. G. (2006). Do organizational socialization tactics influence newcomer embeddedness and turnover? *Journal of Management*, 32 (2), 237-256.
- Allen, N.J. & Meyer, J.P. (1990). Organizational socialization tactics; longitudinal analysis of links to newcomers' commitment and role orientation. *Academy of Management Journal*, 33(4), 847-858.
- Ashforth, B. E. (1998). Socialization and newcomer adjustment: the role of organizational context. *Human Relation*. Retrieved September 15, 2002, from [http:// www.findarticles.com](http://www.findarticles.com).
- Ashforth, B. E., Sluss, D. M. & Saks, Al. M. (2007). Socialization tactics, proactive behavior, and newcomer learning: integrating socialization models. *Journal of Vocational Behavior*, 70(3), 447-462.
- Aydın, M. (1993). *Çağdaş eğitim denetimi* [Inspection of contemporary education]. Ankara: Pegem Yayını.

- Balçı, A. (2003). *Örgütsel sosyalleşme: kuram, strateji ve taktikler* [Organizational socialization: theory, strategy and tactics]. Ankara: Pegem A.
- Baruch, Y., Winkelmann-Gleed, A. (2002). Multiple commitments: a conceptual framework and empirical investigation in a community health service trust. *British Journal of Management*, 13 (4), 337-57.
- Blau, G. (1988). An investigation of the apprenticeship organizational socialization strategy. *Journal of Vocational Behavior*, 32,176-195.
- Boon, Z., & Stott, K. (2003). Diversity in the principals: the impact of the formative years. *Educational Research for Policy and Practice*, 2(3), 183-194.
- Browne- Ferrigno, T. (2003). Becoming a principal: role conception, initial socialization, role-identity transformation, purposeful engagement. *Educational Administration Quarterly*, 39(4), 468-503.
- Browne-Ferrigno, T., & Muth, R. (2004). Leadership mentoring in clinical practice: role socialization, professional development, and capacity building. *Educational Administration Quarterly*, 40(4), 468-494.
- Buono, A.F. & Kamm, J.B. (1983). Marginality and the organizational socialization of female managers. *Human Relations*, 36(12), 1125-1140.
- Can, H. (1999). *Organizasyon ve yönetim* [Organization and administration]. Ankara: Siyasal Kitabevi.
- Chatman, J. A. (1991). Matching people and organizations: selection and socialization in public accounting firms. *Administrative Science Quarterly*, 36, 459-484.
- Chao, G. T. (2007). *The role of socialization in the organizational entry process*. Retrieved January 16, 2008, from <http://www.ttl.fi/NR/rdonlyres/DE714B51-DD66-4559-9103-3B9AAA882220/0/Chaoweb.pdf>
- Cheng, M.H., & Pang, K.C. (1997). Teacher socialization: implications for the design and management of initial teacher. *Education Programme*, 39(5), 195- 204.
- Cooper- Thomas, H., & Anderson, N. (2005). Organizational socialization: A field study in to socialization success and rate. *International Journal Of Selection And Assessment*, 13 (2) 116-128.
- Crow G. M. (2007). The professional and organizational socialization of new English head teachers in school reform contexts. *Educational Management Administration & Leadership*, 35(1), 51-71.
- Çelik, V. (1998). Alan dışından gelen sınıf öğretmenlerinin sosyalizasyonu [Socialization of the class teachers coming out of the field]. *Kuram ve Uygulamada Eğitim Yönetimi*, 4(14), 191-208.
- Dodd-McCue, D., & Wright, G. B. (1996) Men, women, and attitudinal commitment: the effects of workplace experiences and socialization. *Human Relations*, 49(8), 1065-1091.
- Feldman, D. C. (1980). A Socialization process that help new recruits succeed. In J.R.Hackman, E.E.Lawler, L.W. Porter (Eds.), *Perspectives on behavior in organization*. (p. 170-178). Mc Graw-Hill Book Company.
- Feldman, D.C., & Arnold, H.J. (1983). *Managing Individual and Group Behavior in Organizations*. New York: McGraw- Hill Book Company.
- Filstad, C. (2004). How newcomers use role models in organizational socialization.

*Journal of Workplace Learning*, 16 (7), 396-409.

- Güneş, H. (2001). İlköğretim okullarında yenileşme gereksinmesi [Necessity of innovation in primary Schools] *Eğitim Araştırmaları*, 3(4), 54-63.
- Griffin, A. E. C., Colella, A., & Goparaju, S. (2000). Newcomer and organizational socialization tactics: an interactions perspective. *Human Resource Management Review*, 10 (4), 453-474.
- Gruman, J. A., Saks, A. M., & Zweig, D. (2006). Organizational socialization tactics and newcomer proactive behaviors: an integrative study. *Journal of Vocational Behavior*, 69, 90-104.
- Hall, D. T. (1987). Careers and socialization. *Journal of Management*, 13 (2), 301-321.
- Glasspool, T.S. (2007). *Initiating your successful transition to school principal*. Retrieved from Academic Leadership the on line journal( 14.09.2008).
- Greenfield, W.D., Marshall, C., & Reed, D. B. (1986). Experience in the vice principal ship: preparation for leading schools. *Journal of Educational Administration*, 24 (1), 107-121.
- Hart, A. W. (1991). Leader succession and socialization: a synthesis. *Review of Educational Research*, 61 (4), 451-474.
- Hellriegel, D., Slocum, J.W., & Woodman, R. W. (1998). *Organizational behavior* (8 th ed.). South-Western College Publishing.
- Hess, F. (1985). The socialization of the assistant principal: from the perspective of the local school district. *Education and Urban Society*, 18 (1), 93-106.
- Hoy, W.K. & Woolfolk, A.E. (1990). Socialization of student teachers. *American Educational Research Journal*, 27 (2), 279-300.
- Jones, G. R. (1986). Socialization tactics, self-efficacy, and newcomers' adjustment to organizations, *Academy of Management Journal*, 29(2), 262-279.
- Kartal, S. (2003). *İlköğretim okulu yönetici ve öğretmenlerinin örgütsel sosyalleşme düzeyleri* [Organizational socialization levels of primary school administrators and teachers]. (An unpublished doctorate thesis, A.Ü Eğitim Bilimleri Enstitüsü, Ankara).
- King, R. C., & Sethi, V. (1992). Socialization of professionals in high-technology firms. *The Journal of High Technology Management Research*, 3(2), 147-168.
- Kuşdemir, Y. (2005) *İlköğretim okulu müdürlerinin öğretmenlerin örgütsel sosyalleşme sürecinde sosyalleştirme stratejilerini kullanma becerileri*[Primary school principals' skills of using their socialization strategies during the organizational socialization process of teachers]. (An unpublished mastership thesis, Kırıkkale Üniversitesi Sosyal Bilimler Enstitüsü, Kırıkkale).
- Kuhleman, E.L., & Hoy, W.K. (1974). The socialization of professionals in to bureaucracies: The beginning teacher in to school. *Journal of Educational Administration*, 12 (2), 18-27.
- Kuzmic, J. (1994). A beginning teacher's search for meaning: teacher socialization, organizational literacy, and empowerment. *Teaching & Teacher Education*, 10(1), 15- 27.
- Kwesiga, E., & Bell, M.P. (2004). Back to organizational socialization: building a

- case for the advancement of women in organizations. *Equal Opportunities international*, 23(7/8), 3-20.
- Ruth, C. K., Weidong, X., James, C. Q., & Vikram, S. (2005). Socialization and organizational outcomes of information technology professionals. *Career Development International*, 10 (1), 26-51.
- Louis, M. R. (1980). Surprise and sense making: what newcomers experience in entering unfamiliar organizational settings. *Administrative Science Quarterly*, 25, 226-251.
- Morrison, E. W. (1993). Longitudinal study of the effects of information seeking on newcomer socialization. *Journal of Applied Psychology*, 78 (2), 173-183.
- Nelson, D.L., & Quick, J.C. (1997). *Organizational behavior: foundations, realities, and challenges*. New York: West Publishing Company.
- Normore, A. (2003). *Professional and organizational socialization processes of school administrators: a literature review*: Retrieved September,15, 2008, from [http://www.hiceducation.org/edu\\_proceedings/anthony%20h.%20normore.pdf](http://www.hiceducation.org/edu_proceedings/anthony%20h.%20normore.pdf).
- Normore, A. (2004). Socializing school administrators to meet leadership challenges that doom all but the most heroic and talented leaders to failure. *International Journal Of Leadership in Education*, 7(2), 107- 125.
- Özden, Y. (1997). Öğretmenlerde okula adanmışlık: yönetici davranışları ile ilişkili mi?[Teachers' devotion to school: is it in relation with the administrators' behaviors?] *Milli Eğitim*, 135, 35-41.
- Özkan, Y. (2004) *Göreve yeni başlayan öğretmenlerin örgütsel sosyalleşme sürecinde okul yöneticilerinin görevlerine ilişkin algıları*[Perspectives of new teachers in the job related to duties of the school administrators within the process of organizational socialization]. (An unpublished mastership thesis, Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara).
- Özkan, Y. (2005). *Örgütsel sosyalleşme sürecinin öğretmenlerin örgüte bağlılıklarına etkisi* [Effect of the organizational socialization process on the devotion of teachers to school]. (An unpublished mastership thesis, Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara).
- Porter, L. W., Lawler, E. E., & Hackman, J. R. (1981). *Behavior in organizations* (international student edition). Mc Graw-Hill International Book Company.
- Reichers, A. E. (1987). An interactions perspective on newcomer socialization rates. *Academy of Management Review*, 12 (2), 278-287.
- Riordan, C.M., Weatherly, E., Vandenberg, R.J., & Self, R.M. (2001). The effects of pre- entry experiences and socialization tactics on newcomer attitudes and turnover. *Journal of Managerial Issues*, 13 (2), 159-76.
- Robbins, S.P. (1986). *Organizational behavior concepts, controversies, and applications* (3 th ed.). New Jersey: Prentice- Hall.
- Saks, A M., Uggerslev, K. L., & Fassina, N. E. (2006). Socialization tactics and newcomer adjustment: a meta-analytic review and test of a model. *Academy of Management Journal*, 29, 262-279.
- Schein, E. H. (1975). Örgütsel sosyalizasyon ve yönetim mesleği [Organizational

- socialization and the occupation of administration](Translated by H. Can). *Amme İdaresi Dergisi*, 8 (2),167-183.
- Schein, E. H. (1992). *Organizational culture and leadership* (2 th ed.). San Francisco: Jossey- Bass Publishers.
- Wanous, J.P. (1980). *Organizational entry recruitment, selection, and socialization of newcomers*. Addison- Wesley Publishing Company.
- Wanous, J. P., Reichers, A.E., & Malik, (1984). Organizational socialization and group development: towards an integrative perspective. *Academy of Management Review*, 9(4), 670-683.
- Young, K. (2007). An alternative model of special education teacher socialization. *Teaching and teacher education*. Available on line 21 September 2007.
- Yüksel, Ö. (1997). *İnsan kaynakları yönetimi*[Management of human sources]. Ankara.
- Zeicner, K.M., & Tabachnick, B.R. (1985). The development of teacher perspectives: social strategies and institutional control in the socialization of beginning teachers. *Journal of Education for Teaching*, 11(1), 1-25.
- Zoba, A. (2000). *İlköğretim okullarında var olan örgütsel değerlerle öğretmenlerin sosyalleşmesi arasındaki ilişki* [The relation between the socialization of teachers and the existing organizational values in primary schools]. (An unpublished mastership thesis, Ankara Üniversitesi Sosyal Bilimler Enstitüsü, Ankara).

## Türkiye’de Resmi Ortaöğretim Okulu Yöneticilerinin Örgütsel Sosyalleşmeleri

### (Özet)

*Problem Durumu:* Örgütsel ortamda mevcut durumu öğrenmede başvurulacak temel konulardan birisi örgütsel sosyalleşmedir. Örgütsel sosyalleşme örgüt ile çalışanları arasındaki etkileşimi kapsar. Örgütsel sosyalleşme çalışmalarına ilişkin tarama, sosyalleşmenin örgütün bir parçası olduğu ve bireyin örgüte uyumunun esas alındığı ilgili literatürden anlaşılmaktadır. Uyumun örgüt tarafından bireye sağlanan öğretim süreci ile bireyin örgütsel değer, tutum ve davranışları öğrenmesi süreci şeklinde iki taraflı ele alındığı görülmektedir. Yöneticinin sosyalleşmesi ise örgüt kültürünü benimsemesi, örgütteki aktif sürece etkin olarak katılması ve yönetimin değişik davranış rollerini edinmesi olarak tanımlanmaktadır. Özellikle yeni yöneticilerin sosyalleşmelerinde yetiştirme programı çeşitli yazarlarca önerilmiştir. Bu programlarda yeni atanan yöneticilerin okulları ziyaret etmeleri, işe alıştırma kursları ve tecrübeli meslektaşların danışmanlık yapmaları gibi etkinlikler yer almaktadır.

Eğitim literatürüne bakıldığında Türkiye dışındaki ülkelerde örgütsel sosyalleşme ile ilgili oldukça çok çalışmanın olduğu görülmektedir. Bunun

yanında Türkiye eğitim literatüründe örgütsel sosyalleşme çalışmalarının kısıtlı olduğu yapılan çalışmaların ise daha çok uyum ile ilgili olduğu söylenebilir. Bu çalışmada var olan boşluğu gidermek amacıyla özellikle eğitim sisteminin temel birimi olan okullardaki yöneticilerin örgütsel sosyalleşmeleri ele alınmıştır.

*Araştırmanın Amacı:* Bu araştırmanın amacı, ortaöğretim okulları (genel ve mesleki lise) yöneticilerinin örgütsel sosyalleşme düzeylerini tespit etmek ve bu yöneticilerin 1-5 yıl, 6- 10 yıl ve 11 yıl ve üstü yöneticilik kıdemlerine göre örgütsel sosyalleşmenin boyutları olan iş doyumu, motivasyon, bağlılık ve kabullenme boyutlarına göre farklılık gösterip göstermediğini belirlemektir.

*Araştırmanın Yöntemi:* Ortaöğretim okulu yöneticilerinin sahip oldukları kıdeme göre örgütsel sosyalleşme düzeylerini tespit etmeye yönelik olan bu araştırma, var olan durumu ortaya koyan tarama türü bir çalışmadır. Örgütsel sosyalleşme ve sosyalleşme boyutları (iş doyumu, motivasyon, bağlılık ve kabullenme) düzeyinin ortaöğretim okullarındaki yöneticilerinin kıdemlerine bağlı olarak değişiklik gösterip göstermediğini saptamak üzere adı geçen kurumlardaki yöneticilere “Örgütsel Sosyalleşme Ölçeği” uygulanmıştır. Çalışma Ankara ili merkez ilçelerindeki toplam 226 ortaöğretim okulu yöneticisi (müdür, müdür yardımcısı, müdür yardımcısı) üzerinde yürütülmüştür. Ortaöğretim okulu yöneticilerinin örgütsel sosyalleşme boyutlarındaki ifadelerle ilişkin algı düzeylerinin belirlenmesinde aritmetik ortalama ve standart sapma değerleri kullanılmıştır. Bu değerlendirmede kıdeme (1- 5 yıl, 6- 10 yıl ve 11 yıl ve üstü) bağlı olarak manidar bir farklılığın olup olmadığını saptamak amacı ile de varyans analizi kullanılmıştır. Bu uygulama sonucunda manidar bulunan farklılığın kaynağını belirlemek için Scheffe Testine başvurulmuştur.

*Araştırmanın Bulguları:* Örgütsel sosyalleşmenin iş doyumu boyutunda 1-5 yıl ile 6- 10 yıl arası kıdeme sahip olan yöneticilerin ( $\bar{X}$  = 44.35,  $\bar{X}$  = 44.25) daha az doyum sağladıkları, ancak 11 yıl ve üstü kıdeme sahip olanların ( $\bar{X}$  = 46.10) ise, daha çok doyum sağlayarak sosyalleştikleri görülmüştür. İş doyumu boyutunda yöneticilerin mesleki kıdemlerine göre verdikleri yanıtlar arasında anlamlı bir farklılık bulunmuştur. Farkın kaynağını bulmaya yönelik scheffe testi sonucuna göre 6- 10 yıl kıdeme sahip olanlar ( $\bar{X}$  = 44.65) ile 11 yıl ve üstü kıdeme sahip olanlar ( $\bar{X}$  = 45.90) arasında anlamlı farklılık olduğu saptanmıştır.

Motivasyon boyutunda mesleki kıdeme göre ortaöğretim okulu yöneticilerinin verdikleri cevapların toplam olarak aritmetik ortalamaları incelendiğinde 11 yıl ve üstü kıdeme sahip yöneticilerin diğer iki grupta yer alan yöneticilere göre daha çok sosyalleştikleri anlaşılmıştır. Yöneticilerin mesleki kıdemlerine göre, motivasyon boyutuna verdikleri yanıtlar arasında anlamlı bir farklılık bulunmuştur. Farkın kaynağını bulmaya yönelik scheffe testi sonucunda 1-5 yıl kıdeme sahip olanlar ( $\bar{X}$  =



53.75) ile 11 yıl ve üstü kıdeme sahip olanlar ( $\bar{X}= 56.94$ ) ve 06- 10 yıl mesleki kıdemi olanlar ( $\bar{X}= 54.10$ ) ile 11 yıl ve üstü kıdemliler ( $\bar{X}= 56.94$ ) arasında farklılık olduğu tespit edilmiştir.

Bağlılık boyutunda 1- 5 yıl, 6- 10 yıl ve 11 yıl ve üstü kıdeme sahip olan yöneticilerin verdikleri cevaplara göre 11 yıl ve üstü kıdeme sahip olanların 64.82 aritmetik ortalama ile diğer iki grupta yer alan yöneticilere göre daha çok bağlılık göstererek sosyalleştikleri anlaşılmıştır. Ayrıca yöneticilerin kıdemlerine göre bağlılık boyutunda yer alan maddelere verdikleri yanıtlar arasında anlamlı bir farklılık da saptanmıştır. Bu farkın kaynağını bulmaya yönelik scheffe testine göre, 1-5 yıl kıdeme sahip olanlar ( $\bar{X}=63.10$ ) ile 11 yıl ve üstü kıdeme sahip olanlar ( $\bar{X}=65.79$ ) ve 6- 10 yıl kıdeme sahip olanlar ( $\bar{X}=63.34$ ) ile 11 yıl ve üstü kıdemliler ( $\bar{X}=65.79$ ) arasında anlamlı farklılık olduğu tespit edilmiştir.

Mesleki kıdeme göre yöneticilerin kabullenme boyutunda verdikleri yanıtlardan kıdem arttıkça ortalamaların da arttığı görülmüştür. Yöneticilerin kıdemlerine göre kabullenme boyutunda yer alan maddelere verdikleri yanıtlar arasında anlamlı bir farklılık bulunmamıştır. Gruplar arasındaki fark istatistiksel olarak anlamlı olmamakla birlikte 1-5 yıl kıdeme sahip olanların  $\bar{X}=40.90$ , 06-10 yıl kıdemi olanların  $\bar{X}=41.08$ , 11 yıl ve üstü kıdeme sahip olanların  $\bar{X}=41.76$  ortalama gösterdikleri belirlenmiştir.

#### *Öneriler*

Araştırma sonucunda genel olarak kıdem arttıkça sosyalleşme düzeyinin arttığı söylenebilir. Böyle bir sonuç yeni yöneticilerin sosyalleşme düzeylerinin yani örgüte "yakınlık" düzeylerinin düşük olduğu ve de uyumlarının tecrübeyle gerçekleştiği sonucunu da getirmektedir. Onun için mesleğe yeni başlayan yöneticiler için eğitim örgütlerinde yöneticilerin örgütsel gerçeğe uyumlarını sağlamaya yönelik örgütsel sosyalleşmenin, çeşitli kurs ve okul ziyaretleri gibi paket programlar şeklinde uygulanması gerekmektedir.

*Anahtar Sözcükler:* Örgütsel sosyalleşme, yönetici, iş doyumunu, motivasyon, bağlılık, kabullenme.

## Measuring Teacher Reflection: Development of TRS

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### Abstract

*Problem Statement:* The idea of teacher thinking is primarily a base for professional growth. Especially for curricula which change periodically, teachers should carry out individual roles and duties in order to derive expected outcomes. Reflection—asking the questions “What have I done?” and “What can I do for the better?”—plays an important role in developing lively experiences in professional life. There is also a need for control of teacher reflection as a tool for professional growth. This study presents a standard scale which is valid and reliable in order to measure teacher reflection.

*Purpose of the Study:* The purpose of this study is to develop a standard reflection scale which helps elementary and secondary school teachers to control in-class activities and contribute to their professional growth.

*Method:* To examine the validity and reliability of the scale, a study was conducted using responses from 437 math and social science teachers whose experience ranged from 1 to 29 years. Additionally, 34 judges contributed in developing items for problematic situations in which teacher reflection was needed. To reveal evidence for the validity of the scale, Point-Biserial Correlation Coefficient for the item total correlation coefficients was computed using ITEMAN Windows Version 3.50 statistical package. Pearson Product Moments Correlation Coefficient for the relationship between TRS and Responsibility Scale, and the relationship between TRS and Rotter’s Internal-External Locus of Control Scale were employed, and Principle Component Factor Analysis and Principle Components Analysis were determined by using STATISTICA 6 and SPSS 11.5. The internal consistency coefficient of the scale was computed by using KR-20. In order to examine the difference between genders, Independent Samples t-Test was used.

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*Results:* Item analysis showed that the scale, which has an Eigenvalue of 10.13, included 22 items and one factor explaining 46.05 percent of the total variance. To reveal evidence for the validity of the scale, the relationship of the Teacher Reflection Scale with Responsibility Scale (0.233,  $p < 0.006$ ) and with Rotter's Internal-External Locus of Control Scale (-0.448,  $p < 0.002$ ) was examined. The internal consistency coefficient of the scale was computed by using KR-20 (0.868). Moreover, a significant difference was not found in the analysis realized according to gender.

*Conclusions and Recommendations:* TRS results indicate that reflection is an attribute which can be gained by experience, and it can be developed via education and experience. Thus, other studies with large samples are needed for examining the structure of the scale, making cross-cultural comparisons, and studying the relationship between reflection and teachers' commitment, self-efficacy, and motivation.

*Keywords:* Reflection, Teacher, Scale, Factor Analysis, Reliability, Validity.

The purpose of this study is to develop a standard scale which is valid and reliable in order to measure teacher reflection. The scale was developed to be useful for an international audience. The measure indicates teacher reflection in a control of unexpected outcomes and trials of individual hypotheses in order to solve the problem of growing professional development. The professional life of any teacher presents a challenge of professional life practicum with the need for lifelong commitment and growth.

The particular growth primarily depends on the "teacher thinking paradigm" (Marland, 1998). Gabrielatos (2002) states that the teachers' contextualized interpretations of any given methodological framework are actually put to use in the classroom. Dewey's (1910) "fork road" situation (Roberts, 1998) which needs "active, persistent, and careful consideration of any belief or supposed form of knowledge" leads the way to the importance of professional growth (Dewey, 1933; Calderhead, 1989).

Similarly, Schön (1987) brings reflection into focus as an understanding of what professionals do. He states that the individual finds himself/herself in an uncertain or unique situation which is experienced by surprise, puzzlement, or confusion. Moreover, he (1987) puts forth the notions of reflection-in-action and reflection-on-action for consideration. Schön defines reflection-in-action as the individual's thinking which serves to reshape what he/she is doing while it occurs. The process follows the steps below:

1. There is a situation of action, and the individual brings routinized responses to it.
2. Those routine responses produce a surprise or unexpected outcome which gets attention.

3. The unexpected outcome leads to reflection within an “action-present.” Moreover, the questions “What is this?” and “How have I been thinking about it?” make individual’s thoughts turn back on the surprising phenomenon.
4. Reflection-in-action has a function which leads individuals to think critically in order to restructure strategies, comprehend the phenomena, or frame the problem.
5. Reflection paves the way to an “on-the-spot-experiment” which makes the individual think of new methods and attempt new actions to test the understanding of the newly observed phenomena or to confirm the moves with the intention of changing the actions for the better.

Greene (1984) states, “Thinking about our craft often brings conscience to bear on the actions we undertake in the course of our work.” Additionally, Wiggins (1978) describes practical deliberation as a process of searching for an “adequate specification” of the situation, a constant remarking and evaluation of concerns, an evolving conception of the point of acting, and a reciprocal relation between the individual and the world.

In this respect, the nature of practice is such that improvement can only be fostered by the professional’s own understanding of self and of the nature of the practical, and reflection plays a major role (Calderhead, 1987a; Calderhead, 1987b). Gilpin (1999) describes the reflective process as noticing and observing, describing and analyzing, and evaluating. In this way, it is apparent that reflection or thinking about practice for growth can take place in the midst, during, or after an action as individual’s thoughts turn back to the situation. For this reason, reflection deserves respect for those individuals who educate others.

Korthagen (2001) describes the ideal process of reflection for teacher development in Figure 1 below:

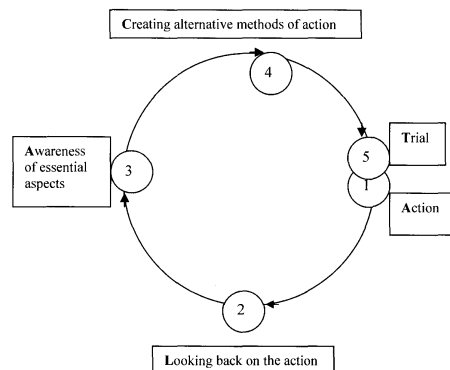


Figure 1. The ALACT Model Describing the Ideal Process of Reflection

The reflective cycle here is based on observation that focuses on practical problems and making interpretations; that is, a process of “noticing” classroom events (McDonough & McDonough, 1997: 101) and a form of practitioners’ responses to practical events that are commonly noticed and discussed in the “plain words” of everyday conversations (Griffiths & Tann, 1992; Handal & Lauvas, 1987).

Thornton and Maher (2005) present Wallace’s (1991) diagram as an alternative for teacher professional growth in the following:

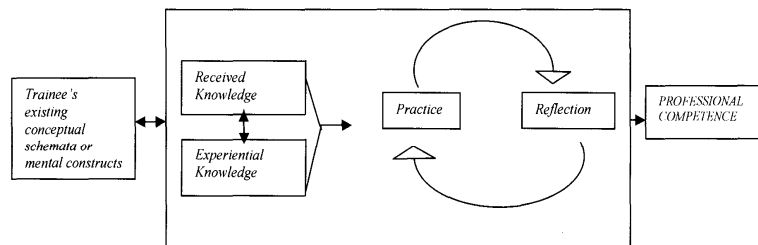


Figure 2. Reflective Practice Model Professional Education/Development

Moreover, the essentials of reflective teacher are summarized from Dewey (1933) to Rodgers (2002) by Lee (2005) as follows:

1. Being aware of the experience; interpreting the experience,
2. Naming the problems or the questions that arise out of the experience; describing the experience,
3. Generating possible explanations for the problems or questions posed, analyzing the experience, ramifying the explanations into full-blown hypotheses, and
4. Experimenting or testing the selected hypotheses intelligently.

Reflection enables teachers to develop a habit formation of continually learning from their experiences by framing problems of practice in light of various perspectives, critiquing and reframing problems within broader perspectives, and taking action that is fostered by such reframing. In this sense, teachers’ reflective abilities can develop, and their awareness of the potential of engaging in problem identification can raise through noticing and questioning events of everyday practice (Kemmis & McTaggart, 1982). In this respect, the highly structured forms of research may be prompted, and the consequent demands of time and expertise may be imposed on teachers (Allwright, 1992; Allwright, 1995; Allwright, 1997; Wallace, 1996).

Whipp (2003) studied the patterns of reflection in field experiences and the scaffolds in higher levels of reflections in online discussions in a study with 40 students taking place over a period of ten weeks. The study shows that students need to understand reflection and higher levels of reflection can be supported with

carefully structured online discussions. Moreover, helpful scaffolds in online discussions about field experiences are tailored, and general questions were submitted from educators and peers about particular issues.

Bulpitt and Martin (2005) examined the development of reflection of a group of students within a counseling training environment. The transcripts showed that students felt reflection could create change and lead to growth and transformation. Moreover, they perceived reflection to be a significant phase in their development as professional practitioners.

Chiu (2006) states that in one of his participatory evaluation projects, reflective meetings were held as part of the evaluation process. Participants were systematically introduced to the practice of reflecting upon their work by using simple story telling methods which provided rich developmental data for evaluation. Chiu stated, "The intention is to skill-up participants to practice reflection on their own."

Ticha and Hospesova (2006) examine the cultivation of teachers' competences through reflection in a Comenius project based on mathematics teaching. Each member of the team used video recordings of a chosen lesson or lessons to analyze and assess. Those recordings became the core of joint reflection in the meeting of the entire team and for the written records. The researchers found growth in the teachers' ability to reflect and showed a shift from teacher toward novice researcher. The investigation suggests that reflection contributes to the answering of some theoretical and practical questions.

Garcia, Sanchez and Escudero (2006) showed how reflection-on-action has made it possible for a group of mathematics educators and researchers improved their professional development by connecting theory and practice in their study of ten classroom problems with 130 student teachers. They stated that reflection enabled them to identify significant incidents and make a critical analysis of the issues detected from the transcripts.

Additionally, many valuable attempts have been made (Clarke, 2006; Conway, 2001; Dinkelman, 2000; Lee, 2005; Reiman, 1999; Tillema, 2000) to show the importance of reflection and reflective practices in teaching and teacher education. However, it seems that a standard comparison is not possible, because each study is held in a different context with different data gathering and analysis instruments, such as online discussions, story telling, written records, and transcript analysis. In fact, the source behaviours and processes in professional development basically emerge from similar problematic school and classroom contexts. In this respect, a standard instrument could be developed to measure reflection for empirical designs and necessary comparisons. The experience could detect a teacher's ability to reflect. A measured reflection level could lead the way to qualified teachers in school, which would enhance their educational abilities. The purpose of this study is, therefore, to develop a standard scale which is valid and reliable in order to measure teacher reflection.

## Method

### Research Design

Because the purpose of the study is to develop a reflection scale for teachers, an empirical scale development process was used with validity and reliability studies. For this reason, the method of the study flows from item development and scale tryout to validity and reliability analysis.

### Sample

**Participants of the Item Development Process.** An open-ended question form was distributed to 20 teachers acting as the judges, and their responses were examined line by line by the researchers in order to reveal the problematic context under which reflection could be included in the educators' professional life. This study paved the way to the development of items which would be used in the tryout administration. After the researchers developed the items from the teachers' responses, 14 judges, who were experts in educational sciences, evaluated the items. Although the judges knew about reflection, they were given a text on the subject so that they could be more thoroughly informed. They were asked to a) identify if each item was suitable for examining reflection, b) choose the alternative which matches reflection, and c) express the possible weaknesses of the items. All of the judgments were consistent, and the researchers agreed that no other statistical analysis was needed. After the feedback from the experts was received, the items were reexamined and prepared for the scale tryout.

**Participants of the Scale Tryout.** After the scale items were ready, the tryout scale was presented to a sample including 437 respondents. The characteristics of the sample respondents are detailed in Table 1.

**Table 1**  
*Pilot Study Sample*

Gender	N	Experience	Departments
Female	212	1-28 years	Social Sciences
Male	225	5-29 years	and Maths
TOTAL	437	1-29	

### Research Instruments

**Question Form.** Before the items were presented to teacher volunteers, a form, composed of open-ended questions including scenarios of problematic classroom and school situations was developed by the researchers in order to develop items for the scale.

The items concerning problematic situations were constructed in two settings; one reflected the classroom setting, and the other reflected items involving colleagues

and school management. Because reflection is seen as a psychological attribute, the response categories of the items were structured around three positions below:

1. Reflection on the problem
2. Attribution of the problem to external causes
3. A lack of concern for the problem

Teachers read the items and chose one of the response categories, which can also be seen in the following sample item from the scale:

“One of your students prevents others from learning.”

- a. I look for the ways to end the situation.
- b. I make him/her sit down in the front alone.
- c. Everyone is responsible for himself/herself.

If the teacher marks the alternative “a,” he/she seems to be responding in a reflective manner. However, if one of the other alternatives is chosen, it seems that the teacher is not behaving in a reflective manner.

**Responsibility Scale.** With the assumption that the teacher with a high reflection score would have a higher degree of responsibility, the criterion of responsibility was decided to be used for the evidence of criterion-related validity. Responsibility as a research area has been studied in terms of occasion worldwide (Hakstian et al., 1986; Kyriotes and Bhar, 1995; Kluever and Green, 1998; Ludlow, 1999; Salkovskis et al., 2000; Singg and Ader, 2001). In Turkey, the scale is the one which measures the attribute of responsibility (Erkuş and Sünbül, 2007). The Likert type scale which has a high Cronbach Alpha reliability value (0.89) is composed of 21 items. The scale combines two subcomponents which are the responsibility to self and the responsibility to others. Each subcomponent score and total responsibility score can be used with the scale. The correlation between the scale and RIDKO is significant as expected; external control scores increase as responsibility scores decrease, and internal control scores increase as responsibility scores increase.

**Rotter's Internal-External Locus of Control Scale.** The condition that a teacher with a high reflection score attributes this score to himself/herself rather than to external factors is expected. In this respect, the correlation between TRS and Rotter's (1966) Internal-External Locus of Control Scale was examined for the evidence of criterion-related validity. The scale developed by Rotter (1966) was adapted to Turkish by Dağ (1991). It includes 29 items and the internal consistency coefficient is .77 and .68. The factor analysis results of both scales seem quite similar. A significant correlation is found between the internal locus of control scores and Rosenbaum's (1980) Learned Resourcefulness Schedule Scores (-.29;  $p < .001$ ). The correlation between the external locus of control and General Symptom scores (GSI) of Brief Symptom Inventory (SCL-90-R) (Derogatis, 1992) is computed as .21 ( $p < .001$ ). Additionally, the test-retest reliability of the scale changes between .49 and .83 for a one or two month period (Dağ, 1991). The Turkish adapted version of the scale is used for the study (for the scale see Rotter, 1966 and/or Dağ, 1991).



### Data Analysis

The scoring format of the scale was binary; therefore, the item total correlation coefficients were computed by using the ITEMAN Windows Version 3.50 statistics program. The point-biserial correlation coefficients of the tryout scale (43-item) were computed as item discrimination indexes and factor analysis was conducted.

Principal Components Factor analysis was realized by using Tetrachorical Correlation Matrix, and item selection was done via analysis results of item-total correlations and the factor structure of the scale. Unrotated two factors were found by making the Principal Components Analysis by using STATISTICA 6. In addition, the internal consistency coefficient of the scale was computed by using KR-20.

## Findings and Results

### Item Discrimination Analysis of the Scale

The results are given in Table 2 below:

**Table 2**

*Item Discrimination Indexes and Factorial Loadings of the Tryout Scale*

Item No	$r_{pb}$	Factor Loading	Item No	$r_{pb}$	Factor Loading	Item No	$r_{pb}$	Factor Loading	Item No	$r_{pb}$	Factor Loading
1	.49	.604	12	.67	.541	23	.58	.545	34	.54	.627
2	.40	.553	13	.24	.669	24	.56	.688	35	.40	.729
3	.23	.765	14	.37	.685	25	.55	.522	36	.32	.598
4	.46	.581	15	.40	.556	26	.45	.655	37	.46	.548
5	.30	.708	16	.54	.607	27	.30	.650	38	.53	.547
6	.23	.733	17	.58	.642	28	.55	.423	39	.18	.766
7	.42	.682	18	.36	.580	29	.38	.637	40	.37	.647
8	.48	.588	19	.51	.640	30	.04	.670	41	.59	.531
9	.27	.634	20	.44	.527	31	.50	.621	42	.18	.599
10	.36	.568	21	.50	.520	32	.43	.707	43	.59	.676
11	.60	.621	22	.38	.722	33	.48	.604			

As seen in the table, the item-total scale correlations and factorial loadings of some items may indicate that the scale has more than one component. However; the scale was decided to measure a one-factor structure, because a significant factorial structure was not revealed by various rotations, and the Eigenvalue of the first factor and all the items attribute to the first factorial load positively.

First analysis of item discrimination led to the exclusion of the items which had values under the acceptable level (.30). In addition to excluding the items and

conducting a second analysis, Principal Components Factor analysis was realized by using Tetrachorical Correlation Matrix, and item selection was done via analysis results of item-total correlations and factor structure of the scale. Unrotated two factors (first factor's Eigenvalue: 13.213; second factor's Eigenvalue: 3.237; explained variance: 47 percent) were found in the Principal Components Analysis by using STATISTICA 6. The analyses were repeatedly continued by examining item discrimination indexes and the item complexity in factor analysis. Then, the items which were not suitable were excluded from the scale. This resulted in the Teacher Reflection Scale-TRS which includes 22 items and one factor explaining 46.05 percent of total variance which has an Eigenvalue of 10.13.

**Table 3**  
*Item Discrimination Indexes and Factorial Loadings of Tryout Scale*

Item No	$r_{pb}$	Factor Loading	Item No	$r_{pb}$	Factor Loading	Item No	$r_{pb}$	Factor Loading
1	.68	0.6222	10	.85	0.7477	19	.78	0.6796
2	.73	0.6344	11	.66	0.5681	20	.70	0.6376
3	.63	0.5731	12	.75	0.6850	21	.63	0.5773
4	.79	0.6822	13	.61	0.5275	22	.77	0.7174
5	.76	0.7127	14	.83	0.7605			
6	.90	0.8573	15	.74	0.6810			
7	.91	0.7960	16	.81	0.7510			
8	.66	0.5794	17	.70	0.6034			
9	.78	0.7126	18	.70	0.7160			

#### **Reliability Evidence of TRS**

After the items were selected, the internal consistency coefficient of the scale was computed by using KR-20 and the reliability coefficient was found to be 0.868. Because test-retest reliability provides evidence for scale's stability, a test-retest reliability was computed after a second administration of the scale on another sample (n=141) and it was found to be 0.835.

#### **Validity Evidence of TRS**

Although the Teacher Reflection Scale has one factor, the items in the scale were developed according to two settings. One of them refers to the *reflection for classroom setting* (RCS); the other one refers to the *reflection for colleagues and school management setting* (RCMS). These settings should not be interpreted as a two-factor structure. The items were developed according to two settings and the scale was revealed as one-factor. However, it may be useful to examine the differentiation of the items according to the settings in studies of validity because of item additivity. The

relationship between these two settings and the relationship between scores related to the settings and the total scale scores were examined.

The researchers examined the relationship between total scores and the two settings of the same factor including items (1, 2, 4, 6, 7, 8, 9, 10, 11, 12, 14, 16, 17, 18, 19, 20), which belonged to RCS, and items (3, 5, 13, 15, 21, 22), which belonged to RCMS. Moreover, the correlation between RCS scores and RCMS scores is .634 ( $p < 0.01$ ), and the correlation between RCS/RCMS scores and the total scores is .953 for RCS and .838 for RCMS. The correlation coefficients between total sub-scale scores and total scale scores prove that the scale may be used as a whole and/or as independent parts for determining reflection levels according to the settings.

Further examinations demonstrated that the reflection scores do not differentiate according to gender ( $t = 1.494$ ;  $df = 130$ ;  $p > 0.05$ ) and subject areas, math and social sciences ( $t = -1.881$ ;  $df = 126$ ;  $p > 0.05$ ). The relationship of reflection with some other variables is given in Table 4.

**Table 4**

*The Relationship of Reflection with Some Other Variables.*

	Reflection
Responsibility	.233 ( $p < 0.006$ )
Locus of Control	-.448 ( $p < 0.002$ )
Experience	.242 ( $p < 0.005$ )

Considering the possible relationship between the reflection attribute and responsibility, the scale was administered together with the Responsibility Scale (Erkuş & Sünbül, 2007) on a sample of 138 teachers. A significant correlation (.233,  $p < 0.006$ ) was found between two scales, which means reflection scores increase as responsibility level increases.

Moreover, a significant correlation coefficient was found (.242;  $n = 130$ ;  $p < 0.005$ ) between teaching experience and TRS; that is, reflection scores increase depending on experience.

Considering the importance of the possible change in reflection attributes of teachers according to internal-external locus of control, the relationship between the scores obtained from Rotter's (1966) Internal-External Locus of Control Scale (Dağ, 1991) and the scores obtained from TRS were examined in another sample ( $n = 47$ ,  $r = -.448$ ). In this respect, the reflection scores of the teachers who have internal locus of control are higher than the reflection scores of the teachers who have external locus of control.

## Conclusions and Recommendations

As mentioned earlier, description and measurement attempts in reflection studies to date (Bulpitt and Martin, 2005; Chiu, 2006; Clarke, 2006; Conway, 2001; Dinkelman, 2000; Garcia, Sanchez and Escudero, 2006; Lee, 2005; Reiman, 1999; Ticha and Hospesova, 2006; Tillema, 2000; Whipp, 2003) do not seem to allow for standard comparisons. The results of the current studies give a limited possibility for the comparisons mentioned. For this reason, TRS, which was intended to be developed in this study, has a one-factor structure, and it is seen that the reflection attribute is effective in both in a classroom setting and in a colleagues/management setting. Both the internal consistency of the scale and the factorial structure of the scale showed evidence for this. Furthermore, reflection can be seen as a personality feature when its relationship with responsibility and internal-external locus of control is taken into consideration.

Moreover, the relationship between reflection and teaching experience indicates that reflection is an implication of teacher identity and an attribute which can be gained by experience. It can also be stated that reflection can be developed via education and experience especially by teacher educators who are aware of teacher roles. Since teachers' educational practices are an expression of their beliefs and images (Ben-Peretz, 2001), measurement of reflection can be a powerful tool for education. The measurement of reflection can also be an indicator of teachers' commitment to teaching, problem solving, and professional growth, because commitment is seen as a nested phenomena emerging from personal beliefs, self images, role, and identity (Day, Elliot, & Kington, 2005). In addition, the TRS can lead the way to cross-cultural comparisons in forthcoming studies. In this study, strong evidence was found that TRS is a one-factor, reliable, and valid scale. However, further studies with large samples are needed for examining the structure of the scale, making cross-cultural comparisons, and studying the relationship between reflection and teachers' commitment, self-efficacy, and motivation.

## References

- Allwright, D. (1992). *Integrating 'research' and 'pedagogy': Appropriate criteria and practical possibilities*. Teachers Develop Teachers Research Conference, Aston University, September, Centre for Research in Language Education, Lancaster University, working paper series, 13.
- Allwright, D. (1995). Is your dissertation really necessary? In: A. Gilpin, Editor, *The Relationship Between Research and Teaching in Higher Education IELTDHE Fourth Annual Seminar*, Institute for English Language Teacher Development in Higher Education (IELTDHE).
- Allwright, D. (1997). Quality and sustainability in teacher research, *TESOL Quarterly* 31 (2), 368-370.
- Ben-Peretz, M. (2001). The impossible role of teacher educators in a changing world. *Journal of Teacher Education*, 52 (1), 48-56.
- Bulpitt, H. & Martin, P. J. (2005). Learning about reflection from the student. *Active Learning in Higher Education*, 6 (3), 207-217.
- Calderhead, J. (1987a). *Exploring teachers' thinking*. GB: Cassell Educational Limited.

- Calderhead, J. (1987b). The quality of reflection in student teachers' professional learning. *European Journal of Teacher Education*, 10, 269-278.
- Calderhead, J. (1989). Reflective teaching and teacher education. *Teaching and Teacher Education*, 5, 43-51.
- Chiu, L. F. (2006). Critical reflection: More than nuts and bolts. *Action Research*, 4 (2), 182-203.
- Clarke, A. (2006). The nature and substance of cooperative teacher reflection. *Teaching and Teacher Education*, 22, 910-921.
- Conway, P. F. (2001). Anticipatory reflection while learning to teach: From a temporally truncated to a temporally distributed model of reflection in teacher education. *Teaching and Teacher Education*, 17, 89-106.
- Dağ, İ. (1991). Rotter'in iç-diş kontrol odağı ölçeği (RİDKOÖ)'nin üniversite öğrencileri için güvenilirliği ve geçerliği [The reliability and validity of Rotter's internal-external locus of control scale for university students]. *Psikoloji Dergisi*, 7 (26), 10-16.
- Day, C., Elliot, B., & Kington, A. (2005). Reform, standards and teacher identity: Challenges of sustaining commitment. *Teaching and Teacher Education*, 21, 563-577.
- Derogatis, L.R. (1992). *The Brief Symptom Inventory (BSI), Administration, Scoring and Procedures Manual=II*. Clinical Psychometric Research Inc.
- Dewey, J. (1910). *How we think*. Boston: D. C. Heath & Co.
- Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. Boston: Heath & Co.
- Dinkelman, T. (2000). An inquiry into the development of critical reflection in secondary student teachers. *Teaching and Teacher Education*, 16, 195-222.
- Erkuş, A. & Sünbül, Ö. (2007). A study on the development of responsibility scale for adults. Mersin University: Research Report, BAB-EFEB (AE).
- Gabrielatos, C. (2002). Shopping at the elt supermarket: principled decisions & practice. *ELT News*, 144, 8-12.
- Garcia, M., Sanchez, V. & Escudero, I. (2006). Learning through reflection in Mathematics teacher education. *Educational Studies in Mathematics*, 64, 1-17.
- Gilpin, A. (1999). A framework for teaching reflection. In: McGrath, I. & Trappe-Lomax, H. (Eds.), *Theory in language teacher education*. New York: Longman.
- Greene, M. (1984). How do we think about our craft? *Teachers College Record*, 86, 55-67.
- Griffiths, M. & Tann, S. (1992). Using reflective practice to link personal and public theories. *Journal of Education for Teaching*, 18, (1), 69-84.
- Hakstian, A.R., Suedfeld, P., Ballard, E.J., & Rank, D.S. (1986). The ascription of responsibility questionnaire: Development and empirical extensions. *Journal of Personality Assessment*, 50(2), 229-247.
- Handal, G. & Lauvas, P. (1987). *Promoting reflective teaching: Supervision in practice*. Milton Keynes: Open University Press.
- Kemmis, S. & McTaggart, R. (1982). *The action research planner*. Deakin: Deakin University.

- Kluever, R.C. & Green, K.E. (1998). The responsibility scale: A research note on dissertation completion. *Educational and Psychological Measurement*, 58, 520-531.
- Korthagen, A. J. (2001). *Linking practice and theory: the pedagogy of realistic teacher education*. Paper presented at the Annual Meeting of the American Educational Research Association, Seattle.
- Kyriès, M. & Bhar, S.S. (1995). Presentation at the World Congress of Behavioral and Cognitive Therapies. Copenhagen.
- Lee, H. J. (2005). Understanding and assessing preservice teachers' reflective thinking. *Teaching and Teacher Education*, 21, 699-715.
- Ludlow, L.H. (1999). The structure of the job responsibilities scale: A multimethod analysis. *Educational and Psychological Measurement*, 59(6), 962-975.
- Marland, P. (1998). Teachers' practical theories: implications for pre-service teacher education. *Asia Pacific Journal of Teacher Education and Development*, 1, 15-23.
- McDonough, J. & McDonough, S. (1997). *Research methods for English language teachers*. London: Arnold.
- Reiman, A. J. (1999). The evolution of the social roletaking and guided reflection framework in teacher education: Recent theory and quantitative synthesis of research. *Teaching and Teacher Education*, 15, 597-612.
- Rodgers, C. (2002). Defining reflection: Another look at John Dewey and reflective thinking. *Teachers College Record*, 104(4), 842-866.
- Roberts, J. (1998). *Language teacher education*. Bristol: Arnold.
- Rotter, J.B. (1966). Generalized expectancies for internal vs external control of reinforcement. *Psychological Monographs*, 80, 1-28.
- Salkovskis, P.M., Wroe, A.L., Gledhill, A., Morrison, N., Forester, E., Richards, C., Reynolds, M. & Thorpe, S. (2000). Responsibility attitudes and interpretations are characteristics of obsessive compulsive disorder. *Behaviour Research and Therapy*, 38, 347-372.
- Schön, D. A. (1987). *Educating the reflective practitioner*. NY: Josey-Bass Inc. Publishers.
- Singg, S. & Ader J.A. (2001). Development of student personal responsibility scale-10. *Social Behaviour and Personality*, 29(4), 331-335.
- Thornton, B. & Maher, D. (2005). Reflective Teaching. 16.01.2005, from <http://www.emoe.org/departments/cdist/resources/SPCH28.PDF>.
- Ticha, M. & Hospesova, A. (2006). Qualified pedagogical reflection as a way to improve mathematics education. *Journal of Mathematics Teacher Education*, 9, 129-156.
- Tillema, H. H. (2000). Belief change toward self-directed learning: Immersion in practice or reflection on action. *Teaching and Teacher Education*, 16, 575-591.
- Wallace, M. J. (1991). *Training Foreign Language Teachers: A Reflective Approach*. Cambridge: Cambridge University Press.
- Wallace, M.J. (1996). Structured reflection: The role of the professional project in training ESL teachers. In Freeman, D. and Richards, J.C. (Eds), *Teacher learning in language teaching*. Cambridge: Cambridge University Press.
- Wallace, M.J. (1998). *Action research for language teachers*. Cambridge: Cambridge University Press.

- Wiggins, D. (1978). Deliberation and practical reason. In Raz, J. (ed.) *Practical Reasoning*. NY: Oxford University Press.
- Whipp, J. L. (2003). Scaffolding critical reflection in online discussions: Helping prospective teachers think deeply about field experiences in urban schools. *Journal of Teacher Education*, 54, 321-333.

## Öğretmen Yansıtmasının Ölçülmesi: ÖYÖ'nün Geliştirilmesi

### (Özet)

*Problem Durumu:* Öğretmen inanış ve düşünce sistemi mesleki gelişim için bir dayanak noktasıdır. Özellikle belli aralıklarla değişen programlar söz konusu olduğunda beklenmedik ürünlerle karşılaşmamak için öğretmenin bireysel rol ve görevlerini yerine getirmesi gerekir. Yansıtma –“Ne yaptım?” ve “Daha iyisini nasıl yapabilirim?” sorularını sorarak- mesleki yaşamda geçirilen yaşantılarda önemli bir rol oynamaktadır. Bununla birlikte öğretmen yansıtmasının mesleki gelişimde bir araç olarak kullanılabilmesi için denetime gereksinim vardır. Bu bağlamda, bu çalışma öğretmen yansıtmasını ölçmek için geçerli ve güvenilir standart bir ölçek sunmayı amaçlamaktadır.

*Araştırmanın Amacı:* Bu çalışmanın amacı öğretmenlerin sınıf içi yaşantılarına ve mesleki gelişimlerine katkı sağlayacak standart bir yansıtma ölçeği geliştirmektir.

*Araştırmanın Yöntemi:* Ölçeğin geçerlik ve güvenilirliğini incelemek için denemelik ölçek 1 ile 29 yıl arası deneyimi olan 437 fen bilimleri ve sosyal bilimler öğretmeni tarafından yanıtlanmıştır. 34 öğretmen, öğretmen yansıtmasının gerekli olduğu problem durumlarının belirlenip maddelerin geliştirilmesine yargıcı olarak katkıda bulunmuşlardır. Ölçeğin geçerliğine kanıt aramak için, madde toplam test korelasyonları için ITEMAN Windows Version 3.50 istatistik programı kullanılarak Nokta Çift Serili Korelasyon Katsayısı hesaplanmıştır. ÖYÖ ve Sorumluluk Ölçeği arasındaki ilişki ve ÖYÖ ile Rotter'ın İç-Dış Kontrol Odağı Ölçeği arasındaki ilişkinin hesaplanması için Pearson Momentler Çarpımı Korelasyon Katsayısı kullanılmıştır. Ölçeğin faktör analizi işlemleri STATISTICA 6 ve SPSS 11.5 istatistik paket programları kullanılarak yapılmıştır. Ölçeğin iç tutarlılık katsayısı ise KR-20 kullanılarak ortaya çıkarılmıştır. Cinsiyetler arasındaki farkın bulunması için ise Bağımsız Gruplar için t testi işe koşulmuştur.

*Araştırmanın Bulguları:* Madde analiz sonuçları Eigenvalue değeri 10,13 olan ölçeğin 22 maddeden oluştuğunu ve tek faktörün toplam varyansın % 46,05'ini açıkladığını göstermiştir. Ölçeğin geçerliğine kanıt aramak için

Öğretmen Yansıtma Ölçeği ile Rotter'ın İç-Dış Kontrol Odağı ölçeği (-0.448,  $p<0.002$ ) ve Sorumluluk Ölçeği (0.233,  $p<0.006$ ) ile ilişkisi hesaplanmıştır. Ölçeğin iç tutarlılık korelasyon katsayısı KR-20 korelasyon katsayısı kullanılarak ortaya çıkarılmıştır (0.868). Bununla birlikte, cinsiyete göre yapılan analizde anlamlı bir farka ulaşılmamıştır.

*Araştırmanın Sonuçları ve Önerileri:* ÖYÖ analiz sonuçları yansıtmanın deneyim ve yaşantı yoluyla kazanılabilen bir özellik olduğunu ve yine deneyim ve eğitimle geliştirilebileceğini göstermiştir. Bu noktadan yola çıkarak daha geniş örneklem ya da çalışma grupları ile ölçeğin yapısının incelenmesine gereksinim vardır. Aynı zamanda kültürel karşılaştırmalar ve öğretmen yansıtmasının adanmışlık, öz-yeterlik ve güdülenme ile ilişkisinin çalışılması da önerilebilir.

*Anahtar Sözcükler:* Yansıtma, ölçme, öğretmen, ölçek, faktör analizi, güvenilirlik, geçerlik.



## Attitudes toward Seeking Professional Psychological Help: A Comparative Study of Turkish and American Graduate Students

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### Abstract

*Problem Statement:* Recent decades have witnessed remarkable increases in the number of international students seeking educational opportunities outside of their countries of origin. Increasing numbers of students with diverse cultural backgrounds pose challenges to existing student personnel services at contemporary university campuses. Studies investigating the needs and attitudes of these students can guide effective service delivery to this population. To date, a great deal of research with international students has focused on undergraduate students. It is essential to explore the needs and attitudes of international graduate students in order to develop effective interventions.

*Purpose of the Study:* The purpose of this study was to compare help-seeking attitudes of American and Turkish graduate students.

*Methods:* Sixty-four graduate students were given the Attitudes toward Seeking Psychological Help developed by Fischer and Turner via electronic mail. Data were analyzed with t-tests and ANOVA procedures. Students' scores were compared according to country of origin, gender, and socio-economic status.

*Findings and Results:* Results partially supported findings of previous research on gender and help seeking. No significant differences were found according to country of origin and socio-economic status.

*Conclusions and Recommendations:* Despite the growing body of research and apparent concerns for diversifying counseling services, there remains a

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considerable need for further empirical work with international graduate students.

*Keywords:* Help-seeking, international students, graduate students, gender, socio-economic status.

In 2004, the number of international students worldwide was 2.5 million. The number was 1.68 million in 1999 (a 56% increase in 5 years) (UNESCO Institute of Statistics online, 2007). That number is projected to reach 7.2 million by 2025 (Boehm, Davis, Meares, & Pearce, 2002). International student enrollment in the United States peaked in 2002–03 (586,323 students) then decreased by 2.4% and 1.3% in the proceeding two years (565,039 in 2004–05) (Institute of International Education: IIE, 2005). International graduate students constitute almost half of the total enrollment in the science and engineering fields in the United States (National Science Board: NSB, 2006). The U.S. had the weakest growth rate in international student enrollment among six host countries from 1999–2000 to 2004–05. While international student enrollment grew by almost 17% in the United States, it grew by 29% in the United Kingdom, 46% in Germany, 81% in France, 42% in Australia, and 108% in Japan. Yet, the United States continues to be the leading host for international students. In 2004–05, 565,039 international students were enrolled in the U.S. In other words, one out of four international students worldwide was enrolled in American higher educational institutions during 2004–05 (IIE, 2005; UNESCO, 2006). According to statistics by the International Association for Education Counselors (Uluslararası Eğitim Danışmanları Derneği, 2007), in 2007, 11,622 Turkish students were enrolled in American universities. Almost one third of these (32.2% - 3,742) were undergraduate students; over half of these (60.6% - 7,042) were graduate students, and 7.2% of these (838) were students at short-term language programs.

Along with the impacts of events on September 11 of 2001, other developments such as the Bologna Process, and initiatives by various countries to attract international students have had a remarkable impact on the distribution of international students to host countries and on their overall mobility. In 1999, the ministers of education of 29 countries met to discuss the future of higher education in Europe. The post-summit declaration—the Bologna Declaration—expressed the goal of developing a European Higher Education Area by 2010. This development is known as the Bologna Process. Although these developments will change the demographics of international students worldwide, American universities will continue to have a considerable number of graduate students in the near future, which will bring about challenges to universities, student personnel services, and counseling services alike.

International students go to the United States for better educational opportunities. The academic and personal challenges that they encounter provide them with opportunities for personal and professional growth. As pointed out by various college student development theories (Chickering & Reisser, 1993; Pacarella & Terenzini, 1991), it is important to create an educational environment that balances

challenges and supports students in order to foster positive change. Accordingly, it is imperative to find better ways of supporting international students in their challenging experience of schooling abroad. In doing so, it is essential to acquire satisfactory empirical knowledge about their interaction with this cultural environment in ways that can guide professionals in tailoring services for this particular population. Counseling services on American college campuses are important parts of higher educational experience. Given the challenging nature of their experience, international students' utilization of these services may greatly contribute to the quality of their experience in this country.

Attaining knowledge regarding international students' attitudes toward seeking professional psychological help might constitute a beginning step to arranging new services or modifying existing ones. A great deal of research has focused on factors relevant to the help-seeking behavior of various groups. One of the most frequently investigated factors is socioeconomic status (Cohen, 1972). It would be an accurate analogy to see counseling similar with classical and/or contemporary arts, whose knowledge, consumption, or appreciation is almost exclusive to certain groups of people. Fischer and Cohen (1972) propose that both psychological mindedness (subjectivity) and obtaining psychotherapeutic help for personal problems (objectivity) are strongly relevant to one's socioeconomic status. The authors mention a number of reasons for underutilization or drop out from mental health services—even when available at no cost—by people from lower socioeconomic statuses. These two concepts offered by the authors seem to be cultural constructs of European and North American societies. The gap between the availability of mental health services and the rate of their utilization is known as the "service gap" (Cramer, 1999; Stefl & Proserpi, 1985). This gap might at least in part be due to a value difference (conflict) these individuals encounter with mental health professionals, which may contribute to their relatively high dropout rate (Tsan-Yu, Yu, & Mian-Yoon, 2005). A perceived conflict of values might interfere with international students' use of mental health services in college campuses (Shea & Yeh, 2008).

Many studies on attitudes toward seeking psychological help focused on gender differences. Some studies did not find any significant differences between the male and female participants' attitudes (Dadfar & Friedlander, 1982; Kalkan & Odaci, 2005; Lorion, 1974; Solberg, Ritsma, Davis, Tata, & Jolly, 1994; Tata & Leong, 1994; Zhang & Dixon, 2003). Interestingly, Dadfar and Friedlander (1982) reported that male and female international students held more similar attitudes toward seeking help than male and female American students did. On the other hand, most studies seem to acknowledge gender differences. They contend that when other variables are controlled, females are more likely to seek help than their male counterparts (Braithwaite, 1994; Cook, 1983; Gim, Atkinson, & Whiteley, 1990; LeVine & Franco, 1981; Price, McNeill, 1992; Rickwood & Shack-Finger, 1988; Sanchez & Atkinson, 1983; Tedeschi & Willis, 1993; Voit, 1983). For instance, Manese, Sedlacek, and Leong (1988) worked with undergraduate international students and found that female students, as a group, reported a greater need for talking to a counselor for their career plans than international male students did. Despite the existence of some studies'

contrary findings, it seems safe to conclude that gender is a highly reliable predictor of attitudes toward seeking professional psychological help across samples.

Studies with minority members in the United States have guided and modeled research with international populations. There has been a considerable amount of research with major minorities in the United States. These studies dealt with different aspects of such populations' relations or rather lack of relations with available mental health services. Delphin and Rollock (1995) point out that many African American students deal with differential treatment and feelings of alienation by withdrawal and separation. They further indicate that such coping mechanisms might reduce students' opportunities to learn from social interactions. Duncan (2003) found a significant negative relationship between cultural mistrust (toward mainstream/majority culture) and African American male undergraduate students' help-seeking attitudes. A body of literature addresses cultural differences between Caucasian Americans and ethnic groups that have a rather collectivist value orientation. Studies with minority members' attitudes toward mental health services (e.g., Nickerson, Helms, & Terrell, 1994) have revealed cultural mistrust and opinions about mental illness and may also expose influential factors on international students' help-seeking behavior as well. Although there can be certain similarities between international students and students of minorities, there are significantly unique aspects of international students' experience in the United States.

Along with the educational and vocational tasks and challenges, international students need to "acquire linguistic and daily living skills, integrate new values, and adapt socially" (Dadfar and Friedlander, 1982. p. 335). Furthermore, Dadfar and Friedlander (1982) point out that students may have additional stressors if there is turmoil in their country of origin. Although not empirically proven, one of the unique aspects of international students is that they have a smaller number of individuals from their culture of origin. Hence, they may have difficulty finding the kinds of friendships they used to have in their previous lives. Such an aspect is important because it may narrow down their likelihood of forming supportive relationships that may further alleviate their feelings of alienation.

In their comparative study, Angelopoulos and Catano (1993) found that international students were less likely to seek professional psychological help than Canadian students were for academic, personal, social, and economic problems. On the other hand, they also found that both groups of students showed exceptional similarities in their rankings of help sources (i.e., students and older friends being the most preferred sources). In a similar study, Atkinson et al. (1984) found that students of Vietnamese origin have less positive attitudes toward seeking professional help than Anglo-American students. The students of Vietnamese origin also indicated less recognition of personal need for professional help, less tolerance of the stigma associated with psychological help, less interpersonal openness in relation to their problems, and less confidence in the ability of mental health professionals to be helpful for their issues. Ka-Wai Yuen and Tinsley (1981) compared American students' expectations about counseling with those of Chinese, Iranian, and African students. Their findings indicated that American students expected the counselor to

be less concrete, directive, emphatic, and nurturing. They also reported less concern for the counselor to solve their problems. On the other hand, Chinese, Iranian, and African students indicated concern for the counselor to be an authority figure prescribing more tangible solutions to their issues. Their study indicated a distinct difference between American students' expectation of counselors' attitudes in the therapeutic relationship and those of the studied international students.

Fischer and Farina (1995) reported the research findings addressing cultural affiliation with broader American culture as a contributing factor to help-seeking behavior (Atkinson & Gim, 1989; Price & McNeill, 1992; Sanchez & Atkinson, 1983). In other words, these findings indicate that the degree to which the individuals appear to be affiliated with mainstream American culture is favorably associated with their attitudes toward seeking professional psychological help. Given the religious, geographic, historical, and cultural differences they have with Americans, Turkish students may have less favorable attitudes toward seeking psychological help when compared to college students from Latin America.

Studies have consistently confirmed that international students' attitudes toward seeking help are less favorable than those of American students (Dadfar & Friedlander, 1982). Zhang and Dixon (2003) also found that compared to their American peers, Asian international students had less favorable attitudes toward seeking professional help. However, Dadfar and Friedlander (1982) reported that the differences found in their study appeared to be less than those of previous studies. Although more studies with new diverse samples are needed to confirm this finding, it may be interpreted as an indication of changes in international students' help-seeking attitudes.

There has been a lack of studies with international graduate students regarding help-seeking behavior. With the exception of a limited number of studies (i.e., Shea & Yeh, 2008), researchers have almost exclusively focused on undergraduate students. Since graduate students constitute the majority of the international student population (US Department of Education, 1996), studying this particular subgroup is important. Due to various factors, these students' attitudes might be different from those of undergraduate students. For instance, these students are older, more likely to be married, and often a selected group of successful students; some may have stayed here from the beginning of their undergraduate education. Furthermore, they may be more involved with the host culture. As a result, their attitudes toward seeking professional help might significantly differ from those of undergraduate students. The purpose of this study was to investigate help-seeking attitudes of Turkish and American graduate students according to socioeconomic status and gender.

## Method

### *Participants and Procedures*

Different procedures were followed to obtain participation of American and international graduate students. American graduate students were randomly

selected from a campus phone directory and were contacted by electronic mail. International graduate students (Middle Eastern and Latin American) were selected based on availability. In other words, these two groups were contacted if they were members of cultural or ethnic student organizations, if they were listed by the university international center, and if their organizations were available for electronic mail.

After sending electronic mails to listserv moderators of these organizations requesting their cooperation with the study, several of them responded that they were willing to forward the questionnaire to their respective group members (i.e., the Mexican Student Association, Brazilian Student Association, Cuban Students, Columbian Students, Hispanic Engineering Students, Islam on Campus, and Arabic Students). Except for the Turkish student association members, none of the other members responded to the survey. Then, reminder messages were sent to the group moderators twice; however, this effort did not yield any responses.

Therefore, the international sample was reduced to Turkish graduate students (N=25; male: 12; female: 13). The number of graduate students on the Turkish student listserv was not known; thus, the return rate could not be detected. From the phone directory of a large Southeastern public university, 120 American graduate students (male and female) were randomly selected. Their electronic mail addresses were found through the university web page. The survey was sent to them three times. The first time, 8 individuals responded; the second time, 14 responded, and the last time, 17 participated (total 39). The overall return rate for this group was 32.5%.

### ***Instruments***

Attitudes toward Seeking Psychological Help (Fischer & Turner, 1995) is a shortened version of the previous instrument developed by Fischer & Turner (1970). It has 10 questions in a four-point Likert format. Responses involve the following: agree, partially agree, partially disagree, and disagree. The instrument consists of 5 straight (favorable to seeking help) items and 5 reversal (unfavorable) items. Favorable items are scored 3-2-1-0 and reversal ones 0-1-2-3, respectively. Although no reliability studies of the instrument could be found, the authors found a sufficient correspondence between the responses to both instruments ( $r=.87$ , accounting for 76% of the shared variance). Thus, the correlation between the two instruments is not perfect, but the authors endorse the use of the shortened version instead of the original 29-item version with .83 test-retest reliability. Students were also asked to indicate their gender and the socioeconomic status of their family of origin (working class, middle class, and upper class).

### ***Data Analysis***

Data analyses were performed with t-test and One-Way analysis of variance in SPSS software package.

## Results

Below, the results of the study are reported according to each independent variable. First, descriptive statistics such as the number of cases, mean, and standard deviation for the country of origin, gender, and SED are summarized in Table 1 (N=64).

**Table 1**  
*Descriptive Statistics for Help-Seeking according to Country of Origin and Gender*

Variable	N	Mean	Standard deviat.
American	39	17.6410	5.343
Turkish	25	16.2000	6.403
Female	32	20.7813	4.535
Male	32	13.3750	4.346
LOWER SED	14	17.8571	5.6549
MIDDLE SED	26	16.2692	5.4446
HIGHER SED	24	17.5000	6.3039

To analyze mean differences, t-tests for independent samples were performed for the country of origin and gender. These tests did not detect any significant difference between American and Turkish graduate students' help-seeking scores. As shown in Table 2, both t values (.97, .94) are not significant. Females do seem to indicate more favorable attitudes toward seeking professional psychological help. As seen in Table 3, these differences were significant only when the two groups were combined. That is to say, within the groups, gender did not yield significant mean differences but did so only when sexes were compared regardless of their country of origin.

**Table 2**  
*T-test for Equality of Means according Country of Origin*

Variances	<i>df</i>	<i>SE</i>	Confidence Interval (95%)	<i>t</i>	<i>p</i>
Equal	62	1.480	-1.518 ; 4.400	.97	.334
Unequal	44.60	1.540	-1.662 ; 4.544	.94	.355

**Table 3**  
*T-test for Equality of Means according to Gender*

Variances	<u>df</u>	<u>SE</u>	Confidence Interval (95%)	<u>t</u>	<u>p</u>
Equal	62	1.110	5.187 ; 9.626	6.67	.000
Unequal	61.89	1.110	5.187 ; 9.626	6.67	.000

Table 4 summarizes the results of the analysis of variance for SES and help-seeking attitude scores. The illustrated F values were not significant with the given degrees of freedom. Hence, a significant difference among the three SES (working, middle, and upper classes) was not detected.

Similarly, as summarized in Table 4, the analysis of variance did not detect significant mean differences among the three socioeconomic statuses. Furthermore, within the groups, comparisons of social classes and of sexes did not indicate statistically significant differences at a 95% confidence level ( $p < .05$ ).

**Table 4**  
*Analysis of Variance according to SES*

Source of Variation	<u>SS</u>	<u>Df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Main Effects	29.780	2	14.890	.439	.647
SES	29.780	2	14.890	.439	.647
Explained	29.780	2	14.890	.439	.647
Residuals	2070.830	61	33.948		
Total	2100.609	63	33.343		

**Table 5**  
*Test of Significance for Help-Seeking Using Unique Sums of Squares*

Source	<u>SS</u>	<u>Df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Within + residual	1051.84	52	20.23		
Class	2.27	2	1.13	.06	.946
Country	51.31	1	51.31	2.54	.117
Gender	571.74	1	571.74	28.27	.000
Class x country	46.97	2	23.48	1.16	.321
Class x gender	29.16	2	14.58	.72	.491
Country x gender	15.99	1	15.99	.79	.378
Class x country x gender	36.05	2	18.03	.89	.416



In conclusion, the above-mentioned statistical procedures revealed statistically significant differences only among male and female graduate students. Differences in help-seeking attitude scores on the basis of country of origin and SES and the interaction of country, gender, and SES were not significant.

### **Discussion**

The results of this study only confirmed previous research findings regarding gender differences in help-seeking attitudes (Braithwaite, 1994; Cook, 1983; Gim et al., 1990; LeVine & Franco, 1981; Price, McNeill, 1992; Rickwood & Shack-Finger, 1988; Sanchez & Atkinson, 1983; Tedeschi & Willis, 1993; Voit, 1983). Furthermore, these findings have been confirmed by studies with Turkish samples (Türküm, 1999). On the other hand, respondents did not differ in their attitudes based upon the other two independent variables of the study.

The findings did not detect significant differences in help-seeking attitudes of graduate students based on their country of origin or SES. These findings are peculiar for two reasons: First, considering the cultural differences between Turkish and American societies, one would expect differences in the help-seeking attitudes of the two sets of students. Second, given that individuals with different socioeconomic statuses would hold varying values, significant differences could be expected. It could be hypothesized that the unexpected findings might be due to a host of factors. Some of these factors have to do with the limitations of this study. For instance, the Turkish graduate students who did not respond to the survey may in fact have differing help-seeking attitudes than those who did respond. Furthermore, as it is in Turkish society, the students who study in the U.S could be classified into two groups; those who hold significant degrees of Western values and those who are traditionalists. If in fact, the respondents are mostly from the former group, then their attitudes might not be illustrative of help-seeking attitudes of Turkish graduate students. Similarly, Turkish graduate students' favorable attitudes might be associated with their levels of acculturation. Furthermore, it could be hypothesized that possible SES differences might be eliminated by one's educational level. Working with the Turkish adult population, Arslantaş (2003) found that higher SES and higher levels of education were associated with more favorable help-seeking attitudes. Since respondents of this study were graduate students, they might have differing values regarding seeking or using mental health services than the other members of their socioeconomic status.

There are various implications of this study and of the existing body of research regarding international students. Perhaps, the university offices responsible for international student affairs may take a more active stance in familiarizing international students with the mental health services at college campuses. For example, they may consider actively participating in orientation programs for these students to broaden their outreach efforts. Moreover, since international students are mostly involved with international student centers, some modifications in these programs could be of great help in making counseling services more accessible to international students. For instance, the personnel in such centers could be trained in

counseling basic skills In addition, in institutions with large numbers of international students, such centers could include a professional – preferably one who experienced being an international student in a host country. Finally, these centers could inform international students, at least through e-mail, of the existence and functions of on-campus mental health services. However, as recommended by Angelopoulos and Catano (1993), such outreach efforts may succeed by emphasizing a rather informal image of counseling services rather than a “cold” image of a professional institution.

It is clear that international students’ primary reason for being in the United States is academic. Therefore, they may conceptualize their issues around academic matters. Particularly, many non-Western and partially Latin cultures are less familiar with the concept of counseling and with the developmental orientation that rather characterize the industrial-European or European-descended cultures. Accordingly, they might view psychological issues in their lives in significantly different ways than American students.

### Conclusion

As discussed above, the findings of this study only partially supported those of previous researchers. This fact could be attributed to the small sample size and other methodological issues discussed above. Therefore, research with international students may utilize qualitative methodologies in order to capture the totality of their experiences, their needs, and their attitudes toward counseling. Such approaches may also be informative in tailoring the current services in ways that can better match international student expectations. In conclusion, despite the growing body of research and apparent concerns for diversifying counseling services, there is need for further empirical work with this population. This need is greater than ever considering the ever-blooming numbers of international students seeking educational opportunities in the United States.

### References

- Angelopoulos, M., & Catano, V. M. (1993). International and Canadian students’ choices of helping resources: It depends on the problem. *Journal of College Student Personnel, 34*, 377-378.
- Arslantaş, H. (2003). Yetişkinlerde psikolojik yardım arama tutumu ve bunu etkileyen faktörler [Factors affecting adults’ attitudes toward seeking professional psychological help]. Unpublished doctoral dissertation. İstanbul University, İstanbul, Turkey.
- Atkinson, D. R., Ponterotto, J. G., & Sanchez, A. R. (1984). Attitudes of Vietnamese and Anglo-American students toward counseling. *Journal of Student Personnel, 25*, 448-452.
- Boehm, A., Davis, T., Meares, D., & D. Pearce. (2002). *Global student mobility 2025: Forecasts of the global demand for international higher education*. IDP Education Australia.
- Cramer, K . M. (1999). Psychological antecedents to help-seeking behavior: A reanalysis using path modeling structures. *Journal of Counseling Psychology, 46*, 381-387.

- Chickering, A. W., & Reisser, L. (1993). *Education and Identity*. San Francisco: Jossey-Bass Publishers.
- Cook, E. P. (1984). Students' perceptions of personal problems, appropriate help sources, and general attitudes about counseling. *Journal of College Student Personnel*, 25 (22), 139-145.
- Dadfar, S., & Friedlander, M. L. (1982). Differential attitudes of international students toward seeking professional psychological help. *Journal of Counseling Psychology*, 29 (3), 335-338.
- Delphin, M. E., & Tollock, D. (1995). University alienation and African American ethnic identity as predictors of attitude toward, knowledge about, and use of psychological services. *Journal of College Student Development*, 36, (4) 337-346.
- Duncan, L. E. (2003). Black male college students' attitudes toward seeking psychological help. *Journal of Black Psychology*, 29, (1), 68-86.
- Fischer, H. E., & Cohen, S. L. (1972). Demographic correlates of attitude toward seeking professional psychological help. *Journal of Consulting and Clinical Psychology*, 39 (1), 70-74.
- Fischer, E. H., & Turner, J. L. (1970). Orientations to seeking professional help: Development and research utility of an attitude scale. *Journal of Consulting and Clinical Psychology*, 35, 79-90.
- Fischer, E. H., & Turner, J. L. (1995). Attitudes toward seeking professional psychological help: A shortened form and considerations for research. *Journal of College Student Personnel*, 36 (4), 368-373.
- Gim, R. H., Atkinson, D. R., & Whiteley, S. (1990). Asian-American acculturation, severity of concerns, and willingness to see a counselor. *Journal of Counseling Psychology*, 37, 281-295.
- Hunt, S. E. (1996). Mapping the world education: The comparative data base system (CDS). Office of Research Department of Education  
Retrieved April 27, 2007, from <http://www.nsf.gov/sbe/srs/mapping/pdf/intro.pdf>
- Institute of International Education (IIE: 2005). *Fall 2005 international student enrollment survey*. New York: Retrieved April 28, 2007, from <http://opendoors.iienetwork.org/?p=Fall2005Survey>.
- Ka-Wai Yuen, R., & Tinsley, H. E. A. (1981). International and American students' expectations about counseling. *Journal of Counseling Psychology*, 28 (1), 66-69.
- Kushner, M. G., & Sher, K. L. (1989). Fear of psychological treatment and its relation to mental health service avoidance. *Professional Psychology: Research and Practice*, 20, 251-257.
- Lee, M. Y., Abd-Ella, M., & Burke, L. (1981). *Needs of foreign students from developing nations at U. S college and universities*. Washington, DC: National Association for Foreign Student Affairs.
- LeVine, E., & Franco, J. N. (1981). A reassessment of self-disclosure patterns among Anglo-Americans and Hispanics. *Journal of Counseling Psychology*, 28, 522-524.
- Lorion, R. P. (1974). Social class, treatment attitudes, and expectations. *Journal of Consulting and Clinical Psychology*, 42, 920-929.

- Manese, J. E., Sedlacek, W. E., & Leong, F. T. L. (1988). Needs and perceptions of female and male international undergraduate students. *Journal of Multicultural Counseling and Development*, 16, 24-29.
- Nickerson, K. J., Helms, J. E., & Terrell, F. (1994). Cultural mistrust, opinions about mental illness, and black students' attitudes toward seeking psychological help from white counselors. *Journal of Counseling Psychology*, 41 (3), 378-385.
- National Science Board (NSB: 2006). *Science and engineering indicators 2006*. Two volumes. Arlington, VA.
- Pascarella, E. T., & Terenzini, P. T. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco: Jossey-Bass.
- Price, B. K., & McNeill, B. W. (1992). Cultural commitment and attitudes toward seeking counseling services in American Indian college students. *Professional Psychology: Research and Practice*, 23, 376-381.
- Rickwood, D. J., & Braithwaite, V. A. (1994). Social-psychological factors affecting help-seeking for emotional problems. *Social Science and Medicine*, 39, 563-572.
- Sanchez, A. R., & Atkinson, D. R. (1983). Mexican-American cultural commitment, preference for counselor ethnicity, and willingness to use counseling. *Journal of Counseling Psychology*, 30, 215-220.
- Shack-Finger, L. R. (1988). Sex differences in psychological help seeking. *Dissertation Abstracts International*, 49 (10), 4559B.
- Shea, M., & Yeh, C. J. (2008). Asian American students' cultural values, stigma, and relational self-construal: correlates of attitudes toward professional help seeking. *Journal of Mental Health Counseling*, 30 (2), 157-172
- Solberg, V. S., Ritsma, S., Davis, B. J., Tata, S. P., & Jolly, A. (1994). Asian-American students' severity of problems and willingness to seek help from university counseling center: Role of previous counseling experience, gender and ethnicity. *Journal of Counseling Psychology*, 41 (3), 275-279.
- Stefl, M. E., & Prospero, D. C. (1985). Barriers to mental health service utilization. *Community Mental Health Journal*, 21, 167-178.
- Tata, S. P., & Leong, T. L. (1994). Individualism-collectivism, social-network orientation, and acculturation as predictors of attitudes toward seeking professional psychological help among Chinese Americans. *Journal of Counseling Psychology*, 41 (3), 280-287.
- Tedeschi, G. J., & Willis, F. N. (1993). Attitudes toward counseling among Asian international and native Caucasian students. *Journal of College Student Psychotherapy*, 7 (4), 43-54.
- Türküm, S. (1999). Üniversite öğrencilerinin psikolojik yardım almaya ilişkin tutumları ve kendini açma eğilimleri [University students' attitudes toward seeking psychological help and their patterns in self-disclosure]. *IV. Ulusal Eğitim Bilimleri Kongresi*, Cilt 4, 244-259. Eskişehir: Anadolu Üniversitesi Yayınları: 1076, Eğitim Fakültesi Yayınları.
- Tsan-Yu, H., Yu, L., & Mian-Yoon, C. (2005). Psychological distress and help-seeking in patients with chronic pain. *Chang Gung Med Journal*, 28:247-53.
- UNESCO Institute of Statistics online database. (2007). Retrieved April 28, 2007, from <http://stats.uis.unesco.org>.

- UNESCO Institute for Statistics. (2006). *Global education digest 2006: Comparing education statistics across the world*. Montreal.
- Voit, R. R. (1982). Effects of student sex-role identity and problem type on likelihood of seeking counseling and preference for counselor sex. *Dissertation Abstracts International*, 42 (7-A), 3022.
- Zhang, N., & Dixon, D. N. (2003). Acculturation and attitudes of Asian international students toward seeking psychological help. *Journal of Multicultural Counseling*, 31, 205-222.

### **Profesyonel Psikolojik Yardım Aramaya İlişkin Tutumlar: Türk ve Amerikan Lisansüstü Öğrencilerle Karşılaştırmalı Bir Çalışma**

#### **(Özet)**

*Problem Durumu:* Günümüzün küreselleşen dünyasında ticari ve kültürel ilişkilerde olduğu gibi, yüksek öğretim de bütün önceki zamanlara kıyasla daha bir uluslararası nitelik kazanmıştır. Günümüzün dünyasında başka bir ülkede yüksek öğrenim gören bireylerin sayısı üç milyona yaklaşmıştır. Yabancı ülkelerde eğitimin yaygınlaşması ile beraber buralarda öğrenim gören öğrencilerin ihtiyaçları ve bu öğrencilere sunulacak hizmetler konusu önemli hale gelmiştir. Bireylerin eğitimden en üst düzeyde yararlanmaları, önemli ölçüde karşılaştıkları güçlükler ile sahip oldukları destek kaynakları arasındaki dengeye bağlıdır. Bugüne dek yapılmış çalışmalar daha çok lisans düzeyindeki öğrenci örneklemine yoğunlaşmıştır. Lisansüstü öğrencilerin ihtiyaçları üzerinde duran araştırmaların sayısı görece olarak azdır. Bu öğrencilerin ihtiyaç duydukları durumda psikolojik yardım almaları hem ruh sağlıkları, hem buldukları yabancı ülke koşullarına uyumları, hem de öğrenimlerinin verimli geçmesi açısından önem taşır.

*Araştırmanın Amacı:* Bu çalışmanın amacı yabancı (Türk) ve Amerikan lisansüstü öğrencilerin profesyonel psikolojik yardım aramaya ilişkin tutumlarını incelemektir. Bu iki grubun, profesyonel psikolojik yardım aramaya ilişkin tutumlarını belirten puanları kıyaslanmıştır. Ayrıca sosyo-ekonomik durum ve cinsiyet gibi faktörlerin profesyonel psikolojik yardım aramaya ilişkin tutumlarla ilişkisi araştırılmıştır.

*Araştırmanın Yöntemi:* Yabancı ve Amerikan lisansüstü öğrencilere ulaşmak için farklı yollar izlenmiştir. Amerikan öğrenciler üniversitenin elektronik adres rehberinden rastlantısal olarak seçilmiş olup, kendileriyle elektronik posta aracılığıyla irtibat kurulmuştur. Orta Doğulu ve Latin Amerikalı öğrencilerle bağlı oldukları kültürel ya da etnik öğrenci kulüpleri aracılığıyla irtibat kurulmuştur. Bu kulüplerin ve kendilerine bağlı öğrencilerin elektronik posta adresleri Florida Üniversitesi Uluslararası Öğrenci Merkezinden (International Center) elde edilmiştir.

Bu kulüp yetkililerine elektronik posta ile araştırma hakkında bilgi verilmiş ve kulüplerinin üyelerine söz konusu mesajı göndermeleri rica edilmiştir. Bu kişilerden birkaçı yanıt vermiştir (örn., Meksikalı Öğrenciler Derneği, Brezilyalı Öğrenciler Derneği, Kübalı Öğrenciler Derneği, Kolombiyalı Öğrenciler Derneği, Arap Öğrenciler Derneği, v.b.). Ancak bütün bu yabancı öğrenci gruplarından sadece Türk Öğrenci Derneği üyeleri anketlere yanıt vermiştir. Her ne kadar birkaç kez daha yukarıdaki derneklere mensup öğrencilerle elektronik posta ile irtibat kurulduysa da anketlere hiçbir yanıt alınamamıştır. Bu nedenle de lisansüstü yabancı öğrenci örnekleme sadece Türk öğrencilerden oluşmuştur (N=25; erkek: 12; kadın: 13). Türk Öğrenci Derneğine kayıtlı öğrenci sayısı bilinmediği için ankete yanıt veren öğrencilerin oranı tespit edilememiştir. Amerikan lisansüstü öğrencilerden 120 kişilik bir örneklem tesadüfi olarak seçilmiştir. Bu öğrencilere anketler 3 kez gönderilmiştir. Birinci defa 8 kişi; ikinci kez 14 ve üçüncü kez 17 kişi yanıt verdi (toplam 39). Bu grubun ankete yanıt verme yüzdesi 32.5'tir.

Fischer ve Turner tarafından geliştirilen Psikolojik Yardım Aramaya İlişkin Tutumlar Ölçeği, aynı araştırmacılar tarafından geliştirilen aynı isimdeki ölçeğin kısa bir formudur. Bu ölçek 4 seçenekli Likert-tipi 10 sorudan oluşmaktadır. Ölçeğin tepki kategorileri; katılıyorum, kısmen katılıyorum, kısmen katılmıyorum ve katılmıyorum şeklinde sıralanır. Hernekadar bu kısaltılmış formun geçerlilik ve güvenilirlik çalışması yapılmamışsa da, Fischer ve Turner (1995) iki ölçek arasında manidar bir benzeşiklik tespit etmişlerdir ( $r=.87$ , bu % 76 ortak varyansa karşılık gelir). İki ölçek arasında mükemmel bir korelasyon olmamasına karşın, Bu araştırmacılar, 29 maddeden oluşan kısa formun test-tekrar-test güvenilirliği .83 olarak tespit etmişlerdir.

*Araştırmanın Bulguları ve Sonuçları:* Amerikalı ve Türkiyeli lisansüstü öğrencilere ait betimsel istatistikler ve bu istatistiklerin cinsiyete göre dağılımları verilmiştir (N=64). Ülke ve cinsiyete göre ortalamalar arasındaki farkları incelemek için bağımsız örneklem için t-testleri kullanılmıştır. Bu t-testlerden iki ülkenin lisansüstü öğrencileri arasında profesyonel psikolojik yardım aramaya ilişkin tutumlarında manidar bir farklılık bulunamamıştır. Ancak, cinsiyet açısından bakıldığında, kadınlar erkeklerle kıyasla psikolojik yardıma ilişkin daha olumlu tutumlar ifade etmiştir. Öte yandan, cinsiyetler arasındaki fark sadece her iki ulusal grup birleştirildiğinde ortaya çıkmıştır. Diğer bir ifadeyle, her bir grubun erkek ve kadınları kendi aralarında kıyaslandıklarında psikolojik yardım aramaya ilişkin tutumlarında belirgin farklılıklar bulunamamıştır.

Sosyo ekonomik düzeye göre yardım arama tutumundaki varyans analizi sonuçlarına göre, sosyo ekonomik düzeyler (alt-orta-üst) arasında yardım arama tutumları açısından istatistiki olarak anlamlı farklara rastlanmamıştır. Hatta, herbir sosyo ekonomik düzeyde grupların yardım arama ortalamaları cinsiyete göre kıyaslandıklarında da anlamlı farklara rastlanmamıştır.

*Tartışma ve Öneriler:* Bu araştırmanın bulgularının yabancı öğrencilerle yapılacak araştırmalara ilişkin birkaç doğurgusu düşünülebilir. Örneğin, yabancı öğrencilerle çalışan üniversite görevlileri, bu öğrencilere kampüs içerisinde ya da dışında bulunan ruh sağlığı hizmetlerini tanıtmada daha aktif rol oynayabilirler. Hatta bu tanıtım oryantasyon çalışmaları sırasında yapılabilir. Yabancı öğrenciler kampüslerde sunulan hizmetler yerleri arasında en çok uğradıkları yerlerden bir tanesi “yabancı öğrenci merkezidir.” Belki bu merkezlerde psikolojik danışmanların istihdamı bu öğrencilerin daha kolay bir şekilde bu hizmetlere yaklaşımın sağlayabilir. Bu sağlanamıyorsa, bu merkezlerin çalışanlarına verilecek hizmetiçi eğitimle kendilerine temel bazı danışmanlık becerileri kazandırılabilir. Angelopoulos ve Catano (1993) tarafından önerildiği gibi, danışmanlık hizmetleri Batılı olmayan bireylere daha çok imformal bir tarzda sunulmalıdır. Yani bu hizmetlere ilişkin soğuk bir profesyonel imaj sunulmaktan kaçınılmalıdır. Nitekim, birçok Batılı olmayan kültürde ruh sağlığı hizmetlerine dair bu tür kalıp imajlar ve önyargılar yaygındır.

Unutulmamalıdır ki, yabancı öğrencilerin bir ülkede bulunuş amaçları öncelikli olarak akademiktir. Bu nedenler, yabancı öğrenciler yaşadıkları sıkıntıları ifade ederken, akademik zorlukların etrafında kavramsallaştırıyor olabilirler. Kaldı ki, psikolojik danışma olgusunun temelini teşkil eden gelişimsel yaklaşım daha çok Batı kültürlerinin bir yaklaşımıdır. Dolayısıyla, başka kültürlerden insanlar gelişimsel problemlerini daha elle tutulur sorunların etrafında ifade edebilirler. Bu kişisel sorunların önemsenmemesi olarak yorumlanmaktansa, bu sorunların anlamlandırılmasında Batı kültürlerinden farklı şemaların kullanıldığının bir göstergesi olarak algılanabilir.

Bu çalışmada çıkarılabilecek sonuçlardan bir tanesi de, yabancı öğrencilerle çalışılırken, hem niceliksel hem de niteliksel yöntemlerin kullanılmasının daha yararlı olacağıdır. Çünkü, olası kültürel farklılıklara rağmen verilen ölçme araçları ve ölçüm süreçleri belki de her kültürden gelen öğrenciler için aynı derecede geçerlik arzitemeyebilir. Durum böyle ise, bu öğrencilerin kendilerine has özellik ve tutumlarını belirlemede görüşme ve kişiden-kışıye diyalog daha verimli sonuçlar verebilir. Zira, kimi kültürlere mensup bireyler kağıt-kalemle verilen ölçme araçlarına (self-report measures) yabancıdırlar.

*Anahtar Sözcükler:* Psikolojik yardım arama, yabancı öğrenciler, lisansüstü öğrenciler, cinsiyet, sosyoekonomik düzey.

## Teachers' Attitudes toward Using Activities while Teaching English to Young Learners

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### Abstract

*Problem statement:* Since the beginning of the new millennium, the English language has become the dominant international language. Consequently, the need to learn English has increased and teaching English to young learners has become a worldwide practice. The way children learn a second or foreign language differs from the adult approach toward learning. Children gain literacy in the traditional sense and have a shorter concentration span than adults. They are active and consider learning a kind of play. Recognition of these differences led to the proliferation of materials developed for young English learners. Accordingly, activities used when teaching English to young learners expanded in variety. In North Cyprus, teaching English as a foreign language begins as early as pre-school. This has been in practice since 2005. However, there is a dearth of research into teachers' attitudes toward using different activities and which activities are favored most in teaching English to young learners in North Cyprus.

*Purpose of the study:* This study explores the attitudes of teachers toward using different activities while teaching English to young learners in pre-school and years one and two in primary schools in North Cyprus in the 2006-2007 academic year. It also seeks to find out whether there are differences in the attitudes of pre-school and primary school English teachers toward the variety of activities collected through observing teachers. Cluster sampling was used and 110 pre-school and primary school English teachers participated in the study. Data was collected through an in-house questionnaire designed according to the five-point Likert scale.

*Findings and Results:* Data suggests that both pre-school and primary school teachers are in favor of using different activities while teaching English to young learners. Teachers demonstrated a positive attitude toward using different activities. The results of the independent samples t-test suggest that there is no

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significant difference between the responses of pre-school and primary school teachers. The only significant difference is found in whether English should be taught through using language in games. A bivariate analysis indicated a very strong relationship between responses given to the use of different activities.

*Conclusions and Recommendations:* Pre-school and primary school teachers teaching English in North Cyprus have a positive attitude toward using a variety of activities. The ages of these learners are close to each other and their development is similar. Therefore, the results of the study are parallel to this fact and teachers' attitudes toward different activities do show great similarities. In the future, if research is conducted on similar issues, it is recommended that gender, previous training, and length of experience of teachers should be taken into consideration.

**Keywords:** English for Young Learners (EYL), North Cyprus, primary school, pre-school, activities

Developments in science, politics, technology, and communication changed the world into a global village (McLuhan, 1964). As the English language gained the status of international language (Swales, 1990; Nunan, 2002, 2003; Crystal, 2003), it became the most commonly taught second language all over the world (Rixon, 1992). In other words, the importance given to teaching English as a foreign/second language increased tremendously. Decades in the second half of the twentieth century were spent in search of the best method to teach the English language (Richards and Rodgers, 1986; Larsen-Freeman, 1986; Nunan, 1991). The pertinent methods in the English language teaching field are the Grammar-Translation, Direct, Audio-Lingual, and Communicative Methods. Each one of these methods suggested certain activities to be used while teaching English (Richards and Rodgers, 1986; Larsen-Freeman, 1986; Nunan, 1991). However, none of these methods catered to the needs of language learning in a wide variety of contexts and for different age groups. Indeed, Rodgers (1990:1) points out that "The 1980s was the decade of methods, the 1990s will not be." In 1994, Kumaravadivelu (1994:27) in his seminal article stated that there is shift in pedagogy from the method to the post-method condition. He points out that rather than looking for the best method, teachers should be the focus of the teaching/learning situation. He suggests that teachers should be empowered with knowledge and skill and therefore become professionals.

The global emphasis put on English language teaching and the shift away from the search for the best method led to the need for the expansion of the repertoire of teachers for a variety of activities teaching English (Özad, 1997). Cameron (2001:29-31) maintains that for young learners activity is important and should aim for dynamic congruence. She points out that activities and content that are suitable for the children's age and socio-cultural background should be chosen. As a result, teaching English to the youngsters has become a challenge. Parallel to these developments, research began on how young children acquire a second or foreign language (Krashen, 1981, 1985, 1988; Ellis, 1985). These developments were accompanied by the invention of a variety of activities to facilitate language acquisition in youngsters. Accordingly, in the late 1980s, "English for Young Learners" gradually emerged as a new area of study (Brewster et al., 2002; Brumfit et al., 1994; Cameron, 2001; Moon and Nikolov, 2000).

Further research and development demonstrated that teaching English to young learners requires different activities than teaching English to adults. Cameron (2003:111) points out that teachers of young learners need to understand how young children learn, must have

English language competence, should be able to motivate children to learn English, and be prepared to teach early literacy in English. One of the optimal conditions for helping young children learn is the recognition that for children, learning is active and experiential (Read, 2003). Cameron (2003:111) draws our attention to that fact that “If children are to be kept attentive and mentally active, the teacher must be alert and adaptive to their responses to tasks, adjusting activities, and exploiting language learning opportunities that arise on the spot.” In a similar vein, Vanderplank (2008) maintains that literacy of the young learners plays a significant role in the development of second language learning.

Children constitute a big market and this has led to the production of a vast number of printed materials that were supplemented formerly by audio and recently by audio-visual technology. In other words, developments in understanding that children are active learners and that they like to have fun led to the creation of colorful materials. Accordingly, books on classroom activities have been produced in the form of games and short activities. These books were initially provided as time fillers, and in time the variety of activities was integrated in the textbooks. Currently textbooks come with a course book, a student’s book, a teacher’s book, and a DVD full of colorful visual material like the course book.

The English language has always been significant in Cyprus, a British Colony from 1878 to 1960. In the 1960 constitution of the Republic of Cyprus, English was one of the three official languages of the island along with Turkish and Greek. After 1960, English was taught for 4 hours per week in North Cyprus as part of the primary school curriculum in the last two years. The teachers who graduated from the Teachers’ Training College where they studied English and English language teaching methodology in addition to other primary school subjects, taught this course.

The materials designed for young learners were compatible initially with the dominant method of the decade. For example, in colonial times and until 1960, books such as *Absorbing English* (Hemming and Gatenby, 1958)—designed according to the Grammar Translation Method—was used. This was followed by Dolphin English Course (Lee, 1971) and English Now (Ioannou, Papadopoulos 1968). After that, in-house materials designed by the experts upon the request of the Ministry of National Education, Youth, and Culture were used. These were prepared according to the Communicative Approach to language teaching. This is followed by the use of the Chatter Box (Strange, 1989) series. When private schools started in the primary sector, they preferred using the English Parade (Herrera, and Zanatta, 2000) series. All of these books recommend activities in line with the dominant method or approach of the era in which they were prepared.

In 2005, the Ministry of National Education, Youth, and Culture made the decision to lower the age for starting to learn English as a foreign language to pre-school age. Public and private schools began using the English Adventure (Madymufiol, Villaroel, 2005) series. English teachers in these schools were either graduates of Atatürk Teacher’s Academy (formerly, Teacher’s Training College) or graduates of English language teaching departments or graduates of English language and literature departments who hold a teaching certificate.

Currently, the English Adventure (Madymufiol, Villaroel, 2005) series is used in public and private schools. English Adventure is based on research on young learners learning English, on the grounds that young learners learn quickly, have energy, and are motivated by learning that is fun and where everything is new to them. They are active learners. Rather than merely repeating what they know, they are actively involved in formulating rules and trying out hypotheses. Young learners need to feel secure since they have a short concentration span. They need practical contexts, and through multi-sensory experience, learn a second language

while the first language is still in the acquisition stage. They may find it very difficult to sit still in class in the early stages of second language learning (McIlvain). Based on this information, English Adventure is full of different activities (for talking activities role play, making question games, introducing new vocabulary, sorting into sets; for reading songs, games, labels to match; for listening to rhymes, stories, and songs; and for writing, making posters, puzzles, etc.). All are designed to teach English to young learners. Today, English Adventure is the textbook used in public and private schools in North Cyprus.

Now, teaching English to youngsters is not an easy task. During the methods era, teachers were given detailed guidelines about teaching English. Today there is no blueprint. After the methods era, the importance of social interaction in the classroom started to gain ground. Indeed, Beyazkürk et. al. (2007) draw our attention to the significance of peer relations and friendship in childhood and point out that social skills training would help solve children's problems. Similar to learning other lessons, appropriate behavior is ultimately important for language learning. Indeed, recent approaches to language teaching recommend activities in which learners are involved socially (Özad, 1997). What is more, teachers need to be equipped with knowledge, skills, and different activities in order to be effective in class. Şahin (2004) points out that teachers need to have or develop certain competencies and this issue is gradually gaining ground and becoming a common practice in Turkish education. In his article, "A Qualitative Assessment of the Quality of Turkish Elementary Schools," Şahin (2008) asserts that the ultimate goal of primary schools is to graduate every student and preferably be successful at the High School Entrance Test. Şahin (2008) maintains that this is the ideal of the stakeholders of education—parents and students. If the students are successful in this test, they would be placed in Anatolian High Schools or Science High Schools. In these schools, English is either the medium of instruction or is taught heavily. As in Turkey, primary schools in North Cyprus have these goals. In other words, the goal of primary education is to graduate every student and send successful ones either to a public or a private college that require students to be successful in the entrance exams. In these schools, English is the medium of instruction. In this respect, it could be concluded that teaching and learning English is a significant issue in the Turkish Cypriot Education System.

In this study, attitudes of English language teachers of young learners are studied on a variety of activities and other issues related to language teaching such as the proficiency of the mother tongue of the learners. In brief, the purpose of this study is to find out the attitude of public and private school teachers toward using a variety of activities while teaching English to young learners. Therefore, the study focuses on two research questions:

1. What is the attitude of pre-school and early primary school teachers on using a variety of activities while teaching English?
2. Is there any difference between the pre-school and primary school teachers' attitudes toward employing different activities while teaching English to youngsters?

### **Method**

This study has been designed to explore the attitudes of public and private school pre-school and early primary school teachers (teaching 5-7 age groups) toward using a variety of activities while teaching English to young learners in North Cyprus. In the study, cluster sampling strategy was favored—first one of the five main settlement areas was chosen, then public and private pre-school and primary school teachers teaching English in the first and

second grades in urban and rural areas were chosen. Consent was obtained from the North Cyprus Ministry of National Education, Youth and Culture for the research, and the survey was distributed to teachers of young English learners in the 2006-2007 academic year. A total of 110 teachers participated in the study. Forty-two (38 percent) teachers teach English in pre-schools and 68 (62 percent) teach first and second graders. Pre-school children are 5 years old, whereas primary school grades 1 and 2 are aged 6 to 7.

The present study was designed as a descriptive study and can be considered a case study on the attitudes of teachers of young English language learners toward using a variety of activities while teaching English. The study also compares pre-school and primary school teachers' attitudes toward employing different activities while teaching English. Quantitative methodology was favored in the study. Following the observation of pre-school and primary school English language teachers in their teaching situation for one month, activities used by the teachers were collected and an in-house questionnaire was prepared and distributed among pre-school and first and second grade English teachers. The questionnaire consisted of 22 Likert-scale type questions (5= Strongly Agree SA, 4=Agree A, 3=Undecided U, 2=Disagree D, 1=Strongly Disagree SD). Intervals suggested by Balcı (2004) were used. Balcı (2004) recommends that 1-1.79 can be considered as Strongly Disagree; 1.80-2.59 as Disagree; 2.60-3.39 as Undecided; 3.40-4.19 as Agree; and 4.20-5.00 as Strongly Agree. Then, for the suitability of the entire sample, factor analysis was computed for the items related to activities used for teaching young English language learners. Therefore, the alpha coefficient of reliability level for the survey is 0,7944 indicating that the instrument is suitable for factor analysis. Factor loadings for each item of the survey were computed. None of the items are less than 0.50; therefore, all of the items are suitable for further analysis (Hair et al., 1998). An independent samples t-test was run to find out whether the responses of the pre-school and primary school teachers show any statistically significant difference. Bivariate analysis was done to explore whether the questionnaire items were related.

### Findings

Data collected for the present study was analyzed in three steps. First, data was examined in terms of the averages of the questionnaire items. Then, the range was analyzed. This was followed by the results of the independent samples t-test and bivariate analysis. Then, the averages of both pre-school and primary school teachers' responses were examined. The results are presented in Table 1 below.

Table 1  
*Means of Teachers' Responses*

Questionnaire Items	Means
1. English should be taught through songs.	4.4727
2. English should be taught through using language in games.	4.5636
3. Teaching English should be parallel to the vocabulary the child possesses in his/her mother tongue.	4.5818
4. While teaching English, the vocabulary the children do not have in their first language should also be used.	2.8273

5. English should be taught using symbols.	4.7364
6. Drawing should be used while teaching English.	4.2545
7. Realia should be used while teaching English.	4.3182
8. English should be taught parallel to the education given in the mother tongue.	4.4182
9. English should only be taught by native speakers.	3.7545
10. Pair and group work should be used when teaching English.	4.1273
11. English should be taught in mixed classes where there are native speakers.	3.7273
12. Animation should be used while teaching English.	4.1000
13. English should be taught within the limits of vocabulary children know in their mother tongue.	3.2636
14. Description of photographs should be used in teaching English.	3.8091
15. English should be taught through picture books.	4.3909
16. English should be taught using books that have pictures and some writing.	3.5727
17. Teachers should pay attention to pronunciation.	4.8000
18. Drama should be used in teaching English.	3.9727
19. Vocabulary the child does not possess in his/her first language should not be given.	4.1182
20. Teaching points should be related to the topics the child would enjoy.	4.7909
21. English should be taught through reading books.	2.7727
22. A book-centered education should be given.	2.3000

The results indicate that the teachers Strongly Agree or Agree with using a variety of activities while teaching English to young children. In other words, they are positive about the use of songs, language in games, visual symbols, drawing, realia, and picture books. These are the most commonly used activities. They Agree with the use of group work, animation, description of photographs, books with pictures and writing, and drama. These items rated slightly less. Teachers Agree rather than Strongly Agree with these items. For example, group work means having a learner-centered, rather than teacher-centered classroom. Teachers of young learners share their authority with young learners occasionally. Animation, on the other hand, requires technological devices such as a TV or a computer which are not always found in public school classrooms. Teaching that entails describing photographs requires materials such as pictures or post cards, but some teachers may

prefer using books with pictures. Writing activity requires basic literacy of writing with which the pre-schoolers and the first graders in a primary school are very familiar. Last but not least, drama requires a certain proficiency on the learners' part which youngsters may lack.

What is more, the results suggest that the teachers are keen on using activities for which no reading or writing or traditional literacy is needed. On this issue, early primary school English language teachers share the same idea as kindergarten teachers. The only item the respondents Disagree with is the questionnaire item 22 "A book-centered education should be given." This is mainly due to the fact that learners in this age group have not developed fully their reading and writing skills in their first language. Teachers do not prefer this as a class activity for young English language learners since they think that learners will not fully benefit from it. What is more this type of teaching was commonly used in traditional teaching. Teachers indicate that they are equipped with modern activities.

**Table 2**  
*First Language Proficiency*

Questionnaire item	Mean
3. Teaching English should be parallel to the vocabulary the child possesses in his/her mother tongue.	4.5818
4. While teaching English, the vocabulary children do not have in their first language should also be used.	2.8273
8. English should be taught parallel to the education given in the mother tongue.	4.4182
13. English should be taught within the limits of vocabulary children know in their mother tongue.	3.2636
19. Vocabulary the children do not possess in their first language should not be given.	4.1182

Table 2 summarizes the responses given to the questionnaire items related to the first language proficiency of the students. In other words, questions 3, 4, 8, 13, and 19 presented in Table 2 are related to the literacy level of the children in their mother tongue and second language teaching. Teachers who participated in the study indicated that they Strongly Agree that teaching English should go parallel to the first language proficiency of the children. They are Undecided about teaching a second language beyond the proficiency of the mother tongue of the learners.

**Table 3***Teachers' Reaction to Activities Used While Teaching English to Young Learners.*

<b>Questionnaire item</b>	<b>Mean</b>
1. English should be taught through songs.	4.4727
2. English should be taught through using language in games.	4.5636
6. Drawing should be used while teaching English.	4.2545
7. Realia should be used while teaching English.	4.3182
10. Pair and group work should be used when teaching English.	4.1273
12. Animation should be used while teaching English.	4.1000
14. Description of photographs should be used in teaching English.	3.8091
15. English should be taught through picture books.	4.3909
16. English should be taught using books that have pictures and some writing.	3.5727
18. Drama should be used in teaching English.	3.9727

Table 3 presents the responses to the popular activities used in teaching English to young learners. Teachers Strongly Agree or Agree with using a variety of activities while teaching English. The most popular activity is teaching English through games, followed by songs, picture books, realia, drawings, pair and group work, animation, drama, photographs, and books that have pictures and some writing. Children learn when they are engaged in play. Teachers of young learners confirmed this fact with their responses. Other activities require learners to be actively involved.

As mentioned earlier, parallel to the increased significance of English as the international language which resulted in the proliferation of literature and materials designed for teaching English to young learners, teachers are well equipped with resources; songs, animation, photographs, books and drama all reflect this. Using animation suggests that there are TV sets and DVD players or computers in the classrooms. Songs may suggest the use of tape-recorders or computers as well. Songs, plays, drawings, animation, photographs, picture books, books for reading and writing and drama are the types of materials that can be used widely in the presentation and practice stages of lessons.

The questionnaire items also tested the teachers' attitudes toward traditional or modern teaching methods. Reading is considered the fundamental skill for learning a language. Current approaches to language teaching stress more communicative ways of teaching such as games. What is more, learners are encouraged to sit in pairs or

groups and communicate while completing a task set by the teacher. Table 4 presents the results that show that readers favor teaching through a variety of activities suggested by the recent literature.

**Table 4**

*Activities Related to the Traditional and Modern Teaching Techniques.*

Questionnaire item	Mean
2. English should be taught using language in games.	4.5636
10. Pair and group work should be used when teaching English.	4.1273
21. English should be taught through reading books.	2.7727
22. A book-centered education should be given.	2.3000

Worldwide, children within the 5-7 age group are not proficient in reading. Therefore, basing English language teaching on books was rated Disagree and using books while teaching English was rated as Undecided. Questionnaire items 2 and 10 represent activities that became very popular recently whereas questionnaire item 22 represents activities that have been used on the premises of the traditional Grammar-Translation Method. The teachers' attitude toward activities used in recent teaching methods is Strongly Agree and Agree, but activities used in traditional methodology were rated Undecided and Disagree. Thus, it can be said that teachers are in favor of activities suggested by current approaches to English language teaching.

The results were also analyzed in terms of range 1 indicating Strongly Disagree and 5 indicating Strongly Agree. Questionnaire items 3-5, 6, 9-13, 16, 17, 19, 21, and 22 range between 1-5 meaning that teachers hold different views on these items. Items 2, 7, 8, 14, 15, 18, and 20 range between 2-5 suggesting that teachers do not Strongly Disagree on these items. Item 1, "Teaching English through songs" ranges between 3-5. This suggests that teachers possess positive attitudes on this issue.

Pre-school and early primary school class teachers teach very close age groups. Literacy, in the traditional sense, is the main difference between pre-schoolers and elementary school students. In other words, for the pre-school children, reading is at the recognition level whereas primary school children are encouraged to read and write. Therefore, comparing the views of these two groups' teachers is important. An independent sample t-test was run to compare the means of the pre-school and primary school teachers' views on teaching English to young learners. Significance was set at the  $p \leq 0.05$  confidence level. Table 5 presents a comparison of primary and pre-school teachers' responses.



**Table 5***Comparison of the Means of Primary and Pre-school Teachers' Responses*

Questionnaire items	Mean of primary teachers' responses	Mean of pre-school teachers' responses
1. English should be taught through songs.	4,4559	4,5000
2. English should be taught by using language games.	4,7206	4,3095
3. Teaching English should be parallel to the vocabulary the child possesses in his/her mother tongue.	4,6176	4,5238
4. While teaching English, the vocabulary the children do not have in their first language should also be used.	2,9559	2,6190
5. English should be taught using symbols.	4,6912	4,8095
6. Drawing should be used while teaching English.	4,2353	4,2857
7. Realia should be used while teaching English.	4,3529	4,2619
8. English should be taught parallel to the education given in the mother tongue.	4,4412	4,3810
9. English should only be taught by native speakers.	3,6471	3,9286
10. Pair and group work should be used when teaching English.	4,1176	4,1429
11. English should be taught in mixed classes where there are native speakers.	3,7941	3,6190
12. Animation should be used while teaching English.	4,0735	4,1429
13. English should be taught within the limits of vocabulary children know in their mother tongue.	3,2941	3,2143
14. Description of photographs should be used in teaching English.	3,8971	3,6667
15. English should be taught through picture books.	4,4412	4,3095
16. English should be taught using books that have pictures and some writing.	3,5294	3,6429
17. Teachers should pay attention to pronunciation.	4,8088	4,7857
18. Drama should be used in teaching English.	3,8676	4,1429
19. Vocabulary the child does not possess in his/her first language should not be given.	3,9853	4,3333
20. Teaching points should be related to the topics the child would enjoy.	4,7941	4,7857
21. English should be taught through reading books.	2,7059	2,8810

22. A book-centered education should be given.	2,3235	2,2619
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On nearly all the items in the questionnaire, there is a great similarity between the means of the responses given by the two groups (pre-school and primary school teachers). In other words, the results indicate that teachers' views on teaching English to very close age groups of young learners show similarities. Only the means of the second item, "English should be taught through the verbal interaction during the game" showed a statistically significant difference (equal variances assumed,  $p=0.05$ , and equal variances not assumed,  $p=0.013$ ). These results show that verbal development is important when teaching a foreign language. What is more, a bivariate correlation analysis was run and the result indicates that all 22 items of the questionnaire are interrelated and show statistically significant similarities.

### Conclusions and Recommendations

Teachers of young English learners are one of the sources of motivation. Therefore, their attitudes toward a variety of classroom activities are very important in the success of their practice. The activities included in the questionnaire were collected as a result of classroom observations done in both pre-school and early years of the primary schools. Accordingly, the attitude toward using different activities rated very high in the survey of common attitudes toward employing types of activities. In other words, parallel to the literature on teaching English to young learners (Brewster et al., 2002; Brumfit et al., 1994; Cameron, 2001; Moon and Nikolov, 2000), teachers of young learners in North Cyprus favor using a variety of activities while teaching English for young learners.

Analysis of the data collected for the present study suggests that the attitude of the early primary and pre-school teachers show significant similarities. Considering the similar characteristics of the 5-7 age group, it seems that other than the teaching methods that necessitate reading and writing—traditional literacy—the views of teachers in these two groups show similarities. This result indicates that either continuous in-service teacher training provided by the Ministry of National Education, Youth, and Culture has been very effective, or the ages of the pre-primary and early primary school teachers are young so that through the pre-service teacher education program they followed, they are familiar with the recent literature on using a variety of activities while teaching English to young learners.

In the future, if a similar study is conducted, gender, background education, and length of experience of the teachers should be taken into consideration since these may influence the attitude toward employing a variety of activities while teaching English to young children.

What is more, there are some Turkish Cypriot children that were born in the United Kingdom or another English speaking country such as Australia and whose parents repatriated to North Cyprus. These children grow up in families that speak English in their daily lives. How these children react to learning English in a formal setting along with traditional literacy may be another topic to pursue in the future.

## References

- Balcı, A. (2004). *Sosyal bilimlerde araştırma: Yöntem, teknik ve ilkeler*. Ankara: PegemA.
- Beyazkürk D., Anlıak, Ş., Dinçer, Ç. (2007). Peer relations and friendship in childhood. *Eurasian Journal of Educational Research*. 26,13-26.
- Brewster, J., Ellis, G., Girard, D. (2002). *The primary english teacher's guide*. Penguin English Guides.
- Brumfit, C., Moon, J., Tongue, R. (1994). *Teaching english to children*. London: Longman.
- Cameron, L. (2001). *Teaching english to young learners*. Cambridge: Cambridge University Press.
- Cameron, L. (2003). Challenges for ELT from the expansion in teaching children. *ELTJ*. 57(2):105-112.
- Crystal, D. (2003). *English as a global language*. London: Longman.
- Ellis, R. (1985). *Understanding second language acquisition*. Oxford: OUP.
- Frisby, A. W. (1963). *The new ship english course*. London: Longman.
- Hair, J.F. Jr, Anderson, R.E., Tatham, R.L. and Black, W.C. (1998). *Multivariate data analysis*, 5<sup>th</sup> ed., Prentice-Hall.
- Hemming, J. Gatenby, E. V. (1958). *Absorbing english*. London: Longmans, Green and Co. Ltd.
- Herrera, M., Zanatta, T. (2000). *New english parade*. London: Pearson Education.
- Ioannou, A., Papadopoulou, A. S. (1968). *English now*. London: Longman, Green and Company.
- Krashen, S. (1981). *Principles and practice in second language acquisition*. London: Prentice-Hall International (UK) Ltd.
- Krashen, S. (1985). *The input hypothesis: issues and implications*. London: Longman.
- Krashen, S. (1988). *Second language acquisition and second language learning*. London: Prentice-Hall International.
- Kumaravadivelu, B. (1994). The Post-method condition: (e)merging strategies for second/foreign language teaching. *TESOL Quarterly*. 25(2):315-349.
- Larsen Freeman, D. (1986). *Techniques and principles in language teaching*. New York: OUP.
- Lee, W. R. (1971). *The dolphin english course*. London: Oxford University Press.
- Madymufiol, M., Villaroel, M. (2005). *English adventure*. London: Longman.
- McLuhan, M. (1964). *Understanding media: the extensions of man*. USA: Gingko Press.

- McIlvan, A (1999). *English adventure*. Retrieved February 21, 2009 from [www.english-adventure.net](http://www.english-adventure.net)
- Moon, J., Nikolov, M. (ed). (2000). *Researching into teaching english to young learners*. Hungary: University Press Peccs.
- Nunan, D. (1991). *Language teaching methodology*. Hertfordshire: Prentice Hall International.
- Nunan, D. (2002). The impact of english as a global language: policy and planning in greater china. *Hong Kong Journal of Applied Linguistics*, 7(1):1-5.
- Nunan, D. (2003). The impact of english as a global language on educational policies and practices in asia-pacific region. *TESOL Quarterly*. 37(4):589-613.
- Özad, B. E. (1997). *The reflective model of teacher training: its influence on the novice english language teachers*. Unpublished doctoral dissertation, University of Manchester.
- Read, C. (2003). 'Is younger better?'. *English Teaching Professional*. Modern English Publishing, Issue 28.
- Richards, J. C. R., Rodgers, T. (1986). *Approaches and methods in language teaching: a description and analysis*. Sydney, Cambridge: CUP.
- Rixon. S. (1992). English and other languages for younger children: practice and theory in a rapidly changing world. *Language Teaching*. 25(2): 73-93.
- Rodgers, T. (1990). *After methods what? Language teaching methodology for the 1990's*. Sarinee Anvian (ed). Anthology Series 24. Seam Reginal Centre, 1-21.
- Sahin, A. E. (2004). Öğretmenlerin yeterliliklerinin belirlenmesi [Determination of Teacher Effectiveness] *Bilim ve Aklın Aydınlığında Eğitim Dergisi*, Sayı 58.
- Sahin, A. E. (2008). A qualitative assessment of the quality of Turkish elementary schools. *Eurasian Journal of Educational Research*. 30:117-139.
- Strange, D. (1989) *Chatterbox*. London:OUP.
- Swales, J. M. (1990). *Genre analysis*. Cambridge: Cambridge University Press.
- Vanderplank, R. (2008). The significance of first language development in five to nine year old children for second and foreign language learning. *Applied Linguistics*. 29(4):717-722.

## Okulöncesi ve İlkokul Birinci ve İkinci Sınıf Öğretmenlerinin İngiliz Dili Eğitiminde Kullanılan Aktivitelere İlişkin Tutumları

### (Özet)

*Problem Durumu:* İngilizcenin uluslararası dil olarak kabul görmesi okullarda İngilizce öğretme yaşının ana sınıflarına kadar inmesine yol açmıştır. İngiliz Dili Eğitimi konusunda 20. yüzyılın ikinci yarısında yaygın olan en iyi öğretim yöntemini bulma çabaları tek bir yöntemin farklı yöreler ve yaş grupları için uygun olamayacağı yönündeki anlayışın kabul görmesiyle sonuçlanmıştır. Bu da öğretmenlerin belirli bilgi ve becerilere sahip olması gerekliliğini ortaya çıkarmıştır. Farklı aktivite dağarcığına sahip olma ve yeri gelince kullanabilme de bu bağlamda önem kazanmıştır. Ancak Kuzey Kıbrıs'ta öğretmenlerin yol gösteren bir yöntem çatısı olmadan farklı aktiviteler kullanmaya karşı tutumlarının ne olduğu konusunda hiçbir araştırmaya rastlanmamıştır.

*Araştırmanın Amacı:* Çalışmanın amacı Kuzey Kıbrıs'ta devlet ve özel okullarda anasınıf ve ilkokulun birinci ve ikinci sınıflarında ders veren İngilizce öğretmenlerinin öğretmenlik uygulamalarında kullanılan sınıf aktivitelerine karşı tutumlarını belirlemektir. Ayrıca, ilkokul birinci ve ikinci sınıf ve anasınıfında İngilizce dersi veren öğretmenler arasında bu konuda görüş farkı olup olmadığını araştırmaktır.

*Araştırmanın Yöntemi:* Sınıf gözlemleri sonucunda derlenen sınıf aktivite beşli Likert ölçeğine göre oluşturulan 22 maddelik anketin oluşumunda kullanılmıştır. Anket, şehir ve kırsal kesimdeki devlet ve özel okullarda görev yapmakta olan öğretmenlere uygulanmıştır. Çalışmanın verilerinin betimsel istatistik kullanılarak ortalama ve aralıklarına bakılmış ve bağımsız örneklem T-test uygulanmıştır. Ayrıca, sonuçlara ikili korelasyon uygulanmıştır ve ilkokul ve okulöncesi öğretmenlerin farklı aktiviteler kullanımı ile ilgili tavırları arasında yakın ilişki gözlemlenmiştir.

*Araştırmanın Bulguları:* Çalışmaya katılan okulöncesi ve ilkokul öğretmenlerinin İngilizce öğretirken farklı aktiviteler kullanmayla ilgili olumlu tutuma sahiptirler. Dahası, sözkonusu iki grubun tutumları arasında yakın benzerlik gözlemlenmiştir. T-test sonuçları iki grup arasında sadece 'İngilizce öğretimi oyun içerisinde sözel etkileşim yapılarak öğretilmelidir' konusunda istatistiki anlamlı farklılık gözlemlenmiştir.

*Araştırmanın Sonuçları ve Öneriler:* Kuzey Kıbrıs'ta anasınıf ve ilkokulun ilk iki yılında İngilizce eğitimi veren öğretmenlerin farklı sınıf aktiviteleri kullanımı konusundaki tutumları olumludur. Anasınıfı ve ilkokul birinci ve ikinci sınıf öğrencilerin yaşları birbirine yakındır ve gelişmeleri benzerlikler göstermektedir. Böylelikle, bu çalışmanın sonuçları buna paraleldir ve her iki gruba da ders veren öğretmenlerin farklı aktivitelere karşı tutumları büyük benzerlik göstermektedir. Gelecekte, benzer konular üzerinde yapılacak araştırmalarda öğretmenlerin cinsiyetleri, eğitimleri ve deney sürelerini dikkate alınmalıdır.

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Kişi Aboneliği.....:70 TL

Kurum Aboneliği..... : 200 TL

Yurtdışı Aboneliği:..... : 250 \$

Öğrenci Aboneliği:..... : 60 TL

##### Tek Sayılar İçin:

Kişiler ..... : 25 TL

Kurumlar ..... : 75 TL

##### ÖDEME

Anı Yayıncılık Posta Çeki Hesap No: 1911545 veya

İş Bankası Kızılay Şubesi, 4214-0962561 numaralı hesaplar.