

2020

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### Recommended Citation

SENGUN, GOKHAN and ÖĞRETİR ÖZÇELİK, Ayşe Dilek. (2020). Investigation of the Effectiveness of the Social Interaction Program Applied to the Students in an Elementary School. *i.e.: inquiry in education: Vol. 12: Iss. 1, Article 8*.

Retrieved from: <https://digitalcommons.nl.edu/ie/vol12/iss1/8>

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i.e.: inquiry in education is published by the Center for Practitioner Research at the National College of Education, National-Louis University, Chicago, IL.

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## Cover Page Footnote

We adapted this study from the doctoral dissertation, "Investigation of the Effectiveness of the Social Interaction Program Applied to the 4th Grade Students in Elementary Schools Ongoing Integration Class".

# Investigation of the Effectiveness of a Social Interaction Program Applied to the Students in an Elementary School

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## Abstract

This study examines the effectiveness of the Gazi Inclusive Environment Social Integration Program (GIESIP), which we applied to 4th-grade elementary school students. We completed the study in a public elementary school located in Ankara in the 2016–2017 academic year. The study group consisted of 30 female and 28 male students. We chose the school via a random sampling method among public elementary schools. This school is in a middle socioeconomic status region in the Mamak district of Ankara, Turkey. In the study, we used a quasi-experimental design, including an experimental control group, pretest, posttest, and follow-up test. We applied a personal information form, Social Acceptance Scale (SAS), and Perceived Social Support Scale-Revision (PSSS-R). Research findings reveal that the students who have typical development levels in the experimental group have highly increased levels of social acceptance and perceived social support. Based on the results of the study, we can recommend that teachers who have inclusive students in their classes improve and support the development of the students' social acceptance.

**Keywords:** Special education, inclusive education, social interaction, social acceptance, perceived social support.

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<sup>1</sup> Author Note: We adapted this study from the doctoral dissertation, "Investigation of the Effectiveness of the Social Interaction Program Applied to the 4th Grade Students in Elementary Schools Ongoing Integration Class."

## Introduction

Instruction for exceptional children—referred to as “special education”—differs from what most (typical or average) children require. Research indicates that effective instruction for students with disabilities is individualized, explicit, systematic, and intensive. It differs concerning the size of the group taught and the amount of corrective feedback and reinforcement used. From the student’s viewpoint, it is more predictable. Also, each of these elements is on a continuum (Hallahan, Pullen, Kauffman, & Badar, 2020). Special education provides support services that are tailored to students in areas with disabilities or advantages (Bryant, Smith, & Bryant, 2008; Salend, 2008). This type of education is carried out in inappropriate environments with educational programs developed to meet the educational and social needs of individuals who differ significantly from their peers in terms of individual, developmental characteristics, and educational qualifications (Millî Eğitim Bakanlığı, 2018). Special education allows social inclusion for all disabled students. Researchers emphasize that inclusive education plays a critical role in providing typical development level and disabled students in the same educational environments (Obiakor, Harris, Mutua, Rotatori, & Algozzine, 2012).

Inclusive education should embrace a whole-society approach (Salend, 2005). In this respect, it is essential to consider the education of students with special needs at all levels (Eripek, 2012; Gökdere, 2010; Sucuoğlu, 2006). Furthermore, inclusive education benefits more from educational opportunities (Lindsay, 2007). This type of education uses the principle of the least restrictive educational environment. It is also necessary to make educational arrangements for inclusive students and to offer training for such students in the least restrictive environments (Diken, 2013).

It is essential to inform all students in a classroom about different developmental characteristics of the students with special needs (Güzel-Özmen, 2003). Batu (2000) states that all the elements involved in inclusive education should prepare and supply the necessary support services.

## Case Background

Special education started in the late 1700s after an increase in the number of studies related to individuals with special needs (Eripek, 2012). Individuals with special educational needs have received unequal treatment in public education throughout history (Lane, 1976). Apart from economic and social activities, individuals with learning difficulties in the past are discriminated against in educational environments (Atkinson, Jackson, & Walmsley, 1997). Similarly, individuals with hearing impairment and physical disabilities are excluded from society (Humphries & Gordon, 1993).

Individuals with special needs are often subjected to severe social isolation and, in some cases, incarceration (Oliver & Barnes, 1998). We must adopt a positive approach by accepting individuals who need special education to overcome this problem (Orel, Zerey, & Töret, 2004). According to Eripek (1992), it is of great importance to ensure that individuals with special education needs have their needs considered to integrate with other individuals in society. To provide an inclusive way to educate, families, schools, and societal agencies should work together (Diken & Sucuoğlu, 1999).

Koster, Nakken, Pijl, and van Houten (2009) tried to clarify the concepts by scanning 62 articles focusing on the social aspects of inclusive education. The researchers identify the most common ideas and themes related to social participation as friendships/relationships, interactions/communication, acceptance by classmates, and perception of students with disabilities. Additionally, the American Association on Intellectual and Developmental Disabilities (AAIDD, 2012) states that experiencing social adjustment problems is one of the diagnostic criteria of mental disability. Inclusive education provided for students with special needs is also accepted in the USA and spread rapidly all over the world (Engin, Tösten, Kaya & Köselioğlu, 2014). This study makes a significant contribution to research in the field of elementary and special education. This quantitative study examines the effectiveness of the Gazi Inclusive Environment Social Integration Program (GIESIP) applied to 4th-grade mainstream students.

The following research questions guided this project:

1. Does a significant difference exist between the pretest total scores of the experimental and control groups?
2. Does a significant difference exist between the pretest and posttest total scores of the experimental and control groups?
3. Does a significant difference exist between the posttest and follow-up test total scores of the experimental and control groups?

## **Literature Review**

### **Special Education in Turkey**

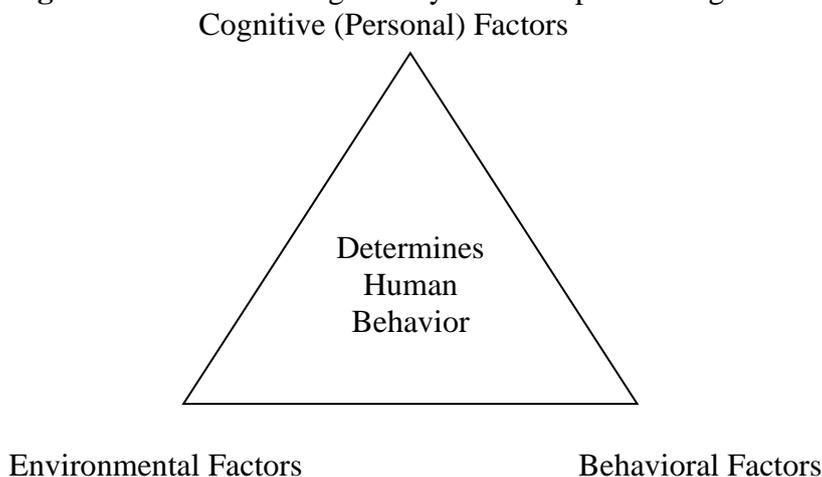
Turkish peoples' attitudes toward individuals with special educational needs are generally positive. However, negative attitudes exist, such as the idea among some that students requiring special needs should be educated in separate schools. Still, students with special needs take classes with typically developed students in Turkey. Inclusive education, which consists of both the typically developed students and the inclusive students in the same educational environments, has benefits for all the stakeholders involved in education, although challenges do exist. For example, in schools, the school administration does not provide adequate support. There are more students in the classes, so the physical environment is not suitable. The families of the students cause incongruity. The individualized education programs have serious deficiencies, the classroom teachers do not have enough information about the program, and the program provides cooperation in the implementation of the staff, which creates difficulties for the educational environment. In addition to this, typically developed students have integration and communication problems with inclusive students. In this regard, the typically developed students need to improve their social acceptance perceptions toward the inclusive students (Arslan & Kılıç, 2016; Ayrıl, 2013; Görmez & Çiftçi Tekinarslan, 2017; MEB, 2010; Şahin, 2017; Sucuoğlu & Özokçu, 2005). However, not enough research has investigated the social integration of inclusive students with typically developed students. The lack of experimental studies on the social effects of inclusive models is also noteworthy. Thus, this study contributes an overall effort to the special education area.

### **Social Learning Theory**

Cognitive development is part of the adaptation process to an environment that starts with birth. In this process, organisms receive stimuli from the environment, which are then processed and changed or accepted without modification. They harmoniously combine what is taken from the environment (Küçükkaragöz, 2017). This study draws extensively from Piaget’s Social Learning Theory on the formation of social knowledge as the process of drawing, learning, and adaptation (Piaget, 1964). Social learning theory advocates multicultural educational strategies that enable children to understand their past and the lives of other people in society (Rosenzweig, 1998). To support the tenets of this theory, Temel and Aksoy (2001) state that children adds to their repertoire the behaviors they observed around the model through their take. Every individual in society needs training to adapt to society, live independently, and be productive. The students in this research were at the operational stage of Piaget’s Social Learning Theory (Piaget, 1964).

Individuals with special needs have equal rights to education because they are also members of society. In this context, individuals with special needs should also receive education to be able to adapt to society (Gresham,1982 ). Kavale and Mostert (2004) defined social skills as behaviors that people acquire through observation to ensure that people receive appropriate responses from the community and avoid inappropriate reactions. They emphasized that students with typical development have shortcomings in social skills and social acceptance against inclusive students, and these shortcomings are eliminated through social skills or social acceptance education programs. So, social acceptance programs should provide preparation according to the characteristics of the students in need of special education in their class (Craig-Unkefer & Kaiser, 2002). Social acceptance education programs are implemented as a classroom or school-based education program (Elksnin and Elksnin, 1998; Maag, 2005; Maag & Webber, 1995). When the social acceptance education models are analyzed, we see that the most basic model is Denham’s (1998) developmental model. According to Denham, those socialized children contribute to their evolving social competencies, the way they express themselves, their understanding of emotions, and their feelings. They do this through social learning mechanisms involved in the socialization process of emotions. These mechanisms are modeling, reactions, and emotion training (coaching). These three aspects of socialization include socializing emotions (becoming models), learning about their feelings (emotion teaching), and learning how to respond to the emotions of others (Denham, 1998). In their research, Nal and Tüzün (2011) concluded that teachers’ attitudes, gender, age, education level, and level of ability are the factors affecting the social status of students with special needs.

**Figure 1.** Social Learning Theory: Four-Step Modeling Process



The social learning model explains the relationship between three factors that determine human behavior. Bandura and Walters (1977) intended to explain how children learn in social circles by observing and imitating the behavior of others. They believed that learning could not be adequately defined only through empowerment, and the presence of others is also an effect. The results of an observed behavior have often shown that children determine whether to accept this behavior. Throughout a series of experiments, the researchers watched the children who watched the adults attacking their Bobo Babies, which are a kind of doll. When hit, the babies fell to the ground, and this process continued repeatedly. Then the children realized and imitated the aggressive behavior of the adults. However, when Bandura and Walters (1977) saw the adults behaving aggressively with punishment, the researchers observed that the children were less willing to imitate their aggressive behavior.

### **Perceived Social Support**

The term “perceived social support” has been used since the 1950s and has gained a conceptual dimension with the works of Lewin (1954). From this date on, perceived social support was seen as a solution to overcome problems. Tardy (1985) emphasized the concept of social support as including direction, tendency, the definition of comfort, and social networks. In their work with students with typical development levels, Adler, Kless, and Adler (1992) found that the children wanted to become friends with the ones (a) who had academic or athletic ability, (b) who were more popular, (c) who were attractive, (d) who were sympathetic, (e) who acted by the rules, (f) who had leadership, (g) who came from a family with a high socioeconomic level, and (h) who were good athletes or who had good grades. Parker and Asher (1993) evaluated the differences in low, middle, and high-level peer acceptance among a group of children in elementary school. Children with low acceptance were found to have more problems with their friends. Vandell and Hembree (1994) expanded this study and found that social competence, self-esteem, and success were also useful in peer acceptance. Individualized teaching programs support well-designed resource programs to ensure the achievement, self-confidence, behavior, and emotional adaptation of academically-disabled students.

Experimental research determined that cooperative learning and individualized teaching programs help students with special needs develop the perceived self-perception and behavior, and they are effective in their acceptance by their peers with typical development levels. Several studies show that information, animation, discussion, and interaction methods were also useful in attitudes towards individuals with special needs (Anderson, 1992; Krahe & Altwasser, 2006; Leyser, Cumblad & Strikman, 1986; Madden & Slavin, 1983). However, in some studies, it was determined that many students did not accept their friends with special needs. These studies showed that social acceptance and interaction opportunities of children were related to the status of individuals with disabilities, and students’ implicit standards and values could play an important role (Evans, Salisbury, Palombaro, Berryman & Hollowood, 1992). Although some studies show that students with typical development have negative attitudes toward inclusive students, some other studies show the opposite.

### **Methodology**

In the study, we used a semi-experimental pattern that includes a pretest, posttest, and follow-up test. Experimental and control groups determined the effect of the Veteran Inclusion Environment Social Interaction Program on social acceptance. They perceived social support levels of students with typical development (Karasar, 2005). Since we used a semi-

experimental design in the study, the universe and sample were not selected. Instead, we took study groups and emphasized equality in the groups. This method constitutes one of the semi-experimental designs that are widely used, especially in educational research (Dugard & Toldman, 1995). The semi-experimental pattern is a model that researchers use to control all variables, especially in social sciences (Büyüköztürk, 2017; Cohen, Manion & Marrison, 2000). The semi-experimental pattern is the most used experimental pattern, especially in research in the field of education, where it is not possible to control all the variables. In this model, we formed groups as experimental and control groups through unbiased appointment (Büyüköztürk, 2017).

We emphasized equality of groups because of the semi-experimental design in the research, instead of working groups. The students took the guidance program, which was already in progress in the control group. We implemented the Gazi Inclusion Environment Social Interaction Program to students in the experimental group.

Table 1 gives the pretest-posttest-follow-up test and experiment-control group (split-plot) pattern.

**Table 1.** Research Pattern

Group	Pretest	Action	Posttest	Follow-up test
Experimental	O <sub>1.1</sub>	13-week training program	O <sub>1.2</sub>	O <sub>1.3</sub>
Control	O <sub>2.1</sub>	No Action	O <sub>2.2</sub>	O <sub>2.3</sub>

In Table 1, we applied a 13-week training program to the experimental group, and no study for the control group. The group without any activity is the control group in the research (Karasar, 2005).

## Participants

The study group consisted of 30 female students and 28 male students attending 4th grade in an elementary school chosen by a simple random method among the formal elementary schools with middle socioeconomic status in the Mamak district of Ankara Province in the 2016–2017 academic year. In the research, we formed two groups by an unbiased assignment method. The experimental and control groups were selected by a simple random method among the classes with inclusive students in the school. We used a quasi-experimental design, including the experimental-control group, pretest, posttest, and follow-up test used. In this study, we applied focus group interviews, personal information forms, a Social Acceptance Scale (SAS), and the Perceived Social Support Scale (PSSS-R).

In this context, a state elementary school in the region with a moderate socioeconomic level chosen from a total of 75 elementary schools in the Mamak District of Ankara Province was used to determine the study group. An experimental group and a control group were determined by assigning two classes selected from eight classes among the 4th-grade students in this elementary school (Karasar, 2005). The study group consisted of 58 students (30 females and 28 males). Of these students, 31 were in the experimental group, and 27 were in the control group.

In this research, we formed two groups with the neutral appointment method. We randomly selected an experimental and a control group among the classes that had inclusive students. The independent variable of the study was the Gazi Inclusive Environment Social Interaction

Program. Dependent variables were the levels of social acceptance and perceived social support levels of the typically-developed students. In this research, we used the Personal Information Form, SAS, PSSS-R, and GIESIP. And also, we used quantitative data collection techniques in the study. Since we used the education program in this study where students trained for 13 weeks, we decided to form groups suitable for the semi-experimental pattern with unsynchronized control groups.

The classes were also selected by a simple random sampling technique. We informed the school administration, the teachers, and the students about the study. We told the students not to write any information indicating their identity on the scale forms, as required by the confidentiality principle. This situation allowed students to respond in a more comfortable and friendly way.

### **Gazi Inclusive Environment Social Interaction Program (GIESIP)**

In this research, we developed the Gazi Inclusive Environment Social Interaction Program (GIESIP) to improve the social interaction skills of the students with typical development levels towards the inclusive students. Piaget's Cognitive Development Theory, Social Learning Theory, and Socio-Cognitive Theories served as the basis for this program—with a holistic and eclectic approach to all developmental areas.

Firstly, the results of the homogeneity test of variance including all the students in the study showed the social acceptance level pretest (Levene = 0.636,  $p > .05$ ) and the social acceptance level posttest (Levene = 0.669,  $p > .05$ ), the variables and PSSS-R pretest (Levene = 2.010,  $p > .05$ ) and PSSS-R posttest (Levene = 0.857,  $p > .05$ ). In this context, Skewness-Kurtosis values, Q-Q graph, histogram graph, and Shapiro-Wilks Test results were examined for normality distributions of the obtained data in experimental and control groups.

According to these results, it seemed that the data did not show a normal distribution, so we used non-parametric statistical methods. We also used a Mann Whitney U-test for nonparametric tests to determine whether there was a significant difference in pretest scores of the experimental and control groups according to the normality results.

### **Data Collection Tools**

In this study, we used a personal information form, SAS, PSSS-R, and GIESIP. We used the personal information form to collect information about the students and their families. The form includes questions to identify sociodemographic information of the students and their families.

### **Social Acceptance Scale**

To collect pretest, posttest, and follow-up test data for social acceptance levels of the students in experimental and control groups, the Social Acceptance Scale adapted to Turkish by Civelek (1990) was used. Civelek (1990), who applied the validity and reliability studies by translating the scale into Turkish, required permission to use it in this research. Siperstein, Bak, and O'Keefe's (1988) SAS consists of 22 items with a five-point Likert scale. As the items have a positive expression, the higher the score from the scale, the higher the social acceptance. The test-retest reliability was 0.82. In this study, the Cronbach's alpha reliability coefficient of the SAS applied to the students in the experimental and control groups was  $r = .92$ .

### Perceived Social Support Scale-Revised (PSSS-R)

Yıldırım (1997) developed the PSSS-R to determine the parental social support of individuals from friends and teachers. PSSS-R has 15 items with a three-point Likert scale. There are three sub-dimensions: (i) family's social support, (ii) friends' social support, and (iii) teachers' social support. Higher scores on the scale indicate that the individual receives more social support (Demir, 2008). Data on the validity and reliability of PSSS-R showed that elementary school students could use PSSS-R. In this study, we applied PSSS-R to elementary school students with a typical developmental level. The Cronbach's alpha reliability coefficient of the PSSS-R applied to the students in the experimental and control groups was  $r = .97$ .

### Findings

The findings indicated that the students who had typical development levels in the experimental group of the program had an increase in the social acceptance level and the perceived social support level. The findings of the pretest, posttest, and follow-up test scores of the experimental and control groups from the SAS and PSSS-R are presented below. We give descriptive statistics of the students from the sample group at different times. We present the distribution of demographic information of the students in the experimental and control groups in the study in Table 2.

**Table 2.** Frequency and Percentage Distribution of Demographic Information of Students in Experimental and Control Groups

Variable	Category	Experimental Group		Control Group	
		N	%	n	%
<b>Gender</b>	Girl	16	51.6	14	51.9
	Boy	15	48.4	13	48.1
<b>Number of siblings</b>	Single child	4	12.9	2	7.4
	2 children	13	42	14	51.9
	3 children	9	29	5	18.5
	4+ children	5	16.1	6	22.2
<b>Mother's educational status</b>	Elementary school	9	29	11	40.8
	Secondary school	5	16.2	6	22.2
	High school	8	25.8	6	22.2
	University	9	29	4	14.8
<b>Father's educational status</b>	Elementary school	7	22.6	3	11.1
	Secondary school	6	19.4	2	7.4
	High school	10	32.2	13	48.2
	University	8	25.8	9	33.3
<b>Mother's job</b>	Housewife	21	67.7	23	85.2
	Worker	4	12.9	2	7.4
	Officer	6	19.4	2	7.4

<b>Father's job</b>	Not working	4	12.9	1	3.7
	Retired	1	3.2	3	11.1
	Worker	20	64.5	20	74.1
<b>Baba çalışma alanı</b>	Officer	6	19.4	3	11.1
<b>Family income</b>	High	9	29	5	18.6
	Medium	17	54.9	21	77.7
	Low	5	16,1	1	3.7
	Total	31	100	27	100

\*p<.05

The distribution of demographic information of the students in the experimental and control groups in the study is presented in Table 2. According to the gender variable, 16 of the students in the experimental group were female, and 15 of them were male; 14 of the control group were female, and 13 of them were male. Within the experimental group, four students were only children, 13 students had two siblings, nine students had three siblings, and five students had four or more siblings. Within the control group, two students were only children, 14 students had two siblings, five students had three siblings, and six students had four or more siblings.

When the students in the experimental group were examined according to the mother's education level, it was determined that nine of the students' mothers graduated from elementary school, five of the students' mothers graduated from secondary school, eight of the students' mothers graduated from high school, and nine of the students' mothers graduated from university or they had a master's degree. In terms of the education level of participants' mothers in the control group, 11 of the students' mothers graduated from elementary school, six of the mothers graduated from secondary school, six of the mothers graduated from high school, and four mothers had a university degree.

Regarding the education level of the participants' fathers in the experimental group, seven of them were elementary school graduates, six of them were secondary school graduates, 10 of them were high school graduates (32.2%), and eight of them received bachelor's or master's degree. When we examined the students' fathers' education levels in the control group, three of them were elementary school graduates, two of them were secondary school graduates, 13 of them were high school graduates, and nine of them had a bachelor's or master's degree. When we studied the students' mothers' occupations in the experimental group, 21 students' mothers were housewives, four students' mothers were workers, six students' mothers were officers. When we investigated the students' mothers' occupations in the control group, 23 of them were housewives and two of them were workers. When we observed the students' fathers' field of work in the experimental group, four students' fathers did not work, one of them was retired, 20 of them were workers, and six of them were officers. When the students in the control group were examined according to the fathers' fields of work we found that one of them wasn't working, three of them were retired, 20 of them were workers, and three of them were civil servants. When we examined the students' families by income level, we found that, within in the experimental group, nine families were high income, 17 were moderate income, and 5 were low income. Looking at income levels within the control group, five families were high income, 21 were moderate income, and one was low income.

**Table 3.** The U-Test Results of the Students in the Experimental and Control Groups According to the SCT Pretest, Posttest and Follow-up Test Scores

	Group	n	$\bar{X}$	S	Order Average	Order Total	U	z	p
SAS	Experimental Group	31	84.38	17.31	31.26	969			
Pretest	Control Group	27	72.37	19.75	27.48	742	364	-.85	.39
SAS	Experimental Group	31	99.74	10.28	41.24	1278.50			
Posttest	Control Group	27	74.88	15.55	16.02	432.50	54.50	-5.67**	.000
SAS	Experimental Group	31	100.41	9.21	40.94	1269			
Follow-up test	Control Group	27	72.77	11.80	16.37	442	64.00	-.53**	.000

\*\*p &lt; .01

Table 3 presents the results of the Mann Whitney U-test of the pretest, posttest, and follow-up test scores by the students who had typical development levels, and those who did not participate in such a program. There was no significant difference between the social acceptance levels,  $U = 364$ ,  $z = -.85$ ,  $p > .05$  in pretest scores of the students in the experimental and control groups examined before the implementation of the program. The mean score of the SDI before the study was 84.38, and the mean score of the students in the control group was 72.37. Before the implementation, the students in the experimental and control groups showed a similarity in terms of social acceptance skills, and there was no difference between the two groups. In other words, the two groups do not differ from each other in terms of social acceptance. This situation is critical to maintaining similarity between the groups when starting the research. A comparison of the student who did not participate with the students who did show that there is a significant difference between the pretest and posttest scores,  $U = 54.50$ ,  $z = -5.67$ ,  $p < .01$ . The mean score of the students in the experimental group was 99.74, and the mean score of the students in the control group was 74.88. Table 3 reveals that the social acceptance skills of the students who did not participate in the program are unchanged. Social acceptance skills of students in the experimental group favored the posttest. According to these results, the applied program has a significant effect on the students' social acceptance skills development. One month after, we observed that there was a significant difference between the experimental and control groups,  $U = 64.00$ ,  $z = -5.53$ ,  $p < .05$ . The mean score of the students in the experimental group was 100.41 after the application, and the mean score of the students in the control group was 72.77. According to Table 3, the students in the experimental group participating in the program have different social acceptance skills among the groups.

**Table 4.** U-Test Results of the Students in the Experimental and Control Groups According to the ASRS-R Pretest, Posttest and Follow-up Test Scores

	Group	n	$\bar{X}$	S	Order Average	Order Total	U	Z	p
PSSS-R	Experimental Group	31	138.09	13.75	33.13	1027	306	-1.758	.079
Pretest	Control Group	27	137.48	6.48	25.33	684			
PSSS-R	Experimental Group	31	143.64	8.92	34.42	1067	266	-2.38*	.02
Post test	Control Group	27	137.74	9.01	23.85	644			
PSSS-R	Experimental Group	31	139.74	6.94	32.08	994.50	338.50	-1.25	.21
Follow-up test	Control Group	27	134.77	12.21	26.54	716.50			

\*p < .05

Based on the information presented in Table 4, there is no significant difference between the students participating in the program and those who did not participate in such a program considering the pretest scores of the PSSS-R,  $U = 306$ ,  $z = -1.758$ ,  $p > .05$ . These findings show that the students in the experimental and control groups have similar perceived social support skills before the application, and there is no difference between the two groups. At the beginning of the study, the classes were selected by a simple random method. Table 4 reveals that there is a significant difference between the students participating in the program and those who did not participate in such a program considering the rank averages. After the implementation, there was an increase in the perceived social support skills of the students in the experimental group. According to these results, the program has a significant effect on developing students' perceived social support skills. As seen in Table 4, we examined whether there was a considerable difference between the perceived social support level scores of the students in the experimental group before and after the application of the program. The mean score of the students in the program was 138.09 before implementation, and this value was 143.64 following execution.

The mean score of the students in the control group was 137.48 and the posttest average rating was 137.74, showing that there is a significant increase in perceived social support levels of the students participating in the program. In contrast, there is no change in perceived social support levels of the students who did not participate in the program. In this study, similar to previous studies, the social interaction program increased the level of perceived social support of the typically developed students as they developed positive feelings. We found that this kind of training gives students a positive outlook and provides them with more social support. Accordingly, there was a significant increase in perceived social support levels of the students participating in the program.

In contrast, there was no change in perceived social support levels of the students who did not participate in the program. The increase in the perceived social support level of the students in the experimental group was much higher. The experimental group had the highest social acceptance level, whereas the control group had the lowest perceived social support level.

This situation shows that the perceived social support level of the students with typical development levels is related to the application of the program, and the applied program has a positive effect on perceived social support levels. In a study conducted by Westervelt and McKinney (1980), a group of 98 students in a fourth-grade elementary school class watched a movie about orthopedic disabilities. As a result of the study, the students who watched the film had more positive attitudes than the students who did not. Studies show that experimental research, cooperative learning, and individualized teaching programs have developed perceived self-perception and behaviors of students with special education needs and that their non-disabled classmates are more accepting. However, several studies showed that information, animation, discussion, and interaction methods were useful in attitudes toward individuals with special needs (Anderson, 1992). Sahbaz's (2007) research also supported the current study.

### **Discussion**

We originally found that experimental and control groups were similar before the implementation. The results of the analysis revealed that the social acceptance level of the students participating in the program was much higher. We observed that the social acceptance level varied after the implementation.

This situation shows that the applied program affects the social acceptance level of the students in the experimental group. Madden and Slavin (1983) concluded that individualized curricula were effective in accomplishing the achievements, self-confidence, behavior, and emotional adjustment of disabled students. There is a considerable amount of research that shows that experimental research, cooperative learning, and individualized education programs can improve the perceived self-perception and behaviors of the students who need special education, and their non-disabled classmates are more accepting. Several studies show that interaction methods are effective (Evans et al., 1992).

Anderson's (1992) study showed that many students did not accept their friends with disabilities. This study showed that social acceptance and interaction opportunities of children were related to the status of disabled individuals, and students' implicit standards and values can also play an important role. Çolak (2007) described the social competence characteristics of a third-grade class in which the mainstreaming program was applied, and examined improvement efforts and prepared a social skills improvement program. As a result of the study, class teachers, school guidance teachers, students, and families had positive opinions about the program. The cooperative work of experts and teachers had positive effects not only on the inclusive students, but also on all the stakeholders in the class. The students in the experimental group favored the results of the social acceptance skills, revealing that the applied program has a lasting effect on students' development.

Sahbaz's (2007) research also showed that students with typical development levels increased their social acceptance levels towards inclusion students. Also, it concluded that a social integration program should increase the social acceptance levels of inclusion students. In Jones and Frederickson's (2010) study, they examined predictive behavioral characteristics of successful integration in students with autism and other students attending mainstream education. In the study, they observed high levels of social acceptance envisaged for children with typical developmental levels, and low levels of social acceptance for children with autism.

Findings indicate that it would be useful to organize programs to increase social skills in schools, which will raise awareness about inclusive education. Classroom environment arrangements, activities, and work plans are needed to improve the social acceptance of inclusive students (Carlberg & Kavale, 1980; Madden & Slavin, 1983). Eder (1990) observed that the self-concept of children was also affected by the social interaction they had with their peers. Houssa, Nader-Grosbois, and Jacobs' (2013) study aimed to understand the relationship between perceived social acceptance of children and their mental status and social adaptation abilities. In their research, they found that theory-based mental interventions were not sufficient to improve social cohesion in children with intellectual disabilities, and many factors were useful in social cohesion.

Furthermore, Idol (2006) argued that the education programs implemented for social acceptance of students with typical development levels provide strong support for mainstream students to cope with their difficulties. Schwab (2015) emphasized that positive peer relations played an essential role in the development of inclusive students. In the study, he observed that positive peer relations are critical to the level of social participation of students with special needs in inclusive classes since social participation was often lower than that of other students. Besides the literature on inclusivity, it is apparent that mainstreaming students sometimes show antisocial behavior towards students with typical development levels (Adams & Allen, 2001).

Garrote's (2017) study also suggested that a lack of social skills was the main reason for students with special educational needs in inclusive classes often having difficulty in social participation. There were also several studies showing that the methods of informing, animating, discussing, and interacting about attitudes toward individuals with special needs were effective and permanent (Anderson, 1992). Anderson's (1992) study revealed that there was a lasting positive impact in the way that students with typical development of such educational programs had positive feelings towards inclusive students. Also, Mastropieri & Scruggs (2016), also appeared to emphasize the importance of special education teachers and classroom teachers acting in cooperation in general. In addition, Gümüş and Tan (2015) found that economic level did not cause a significant difference in the attitudes of students with normal development towards special needs students.

In this study, we concluded that the social interaction program had a significant effect on the social acceptance level of female and male students with normal development levels in the experimental group. We also concluded that there was an increase in the perceived social support levels of female and male students in the experimental group with a normal development level. We found that the social acceptance, empathy and perceived social support levels of the students who participated in the semiexperimental study did not differ significantly according to the number of siblings, the order of birth, the level of parental education, the field of work of parents, or the average income level of the family.

### **Suggestions for Further Researches**

According to the data obtained in the study, researchers can work in schools in regions with different socioeconomic levels. Research should include comparing social acceptance and perceived social support levels of students in lower, middle, and upper socioeconomic groups. A long-term program can be applied to have a lasting effect on the social interaction level of the students, and qualitative research should provide further explanation. Training programs based on social learning theory, sociocognitive theory, and cognitive development

theory aiming to increase student awareness should be studied to further levels of social interaction in inclusive schools. New educational programs based on different theories (Information Processing Theory, Mind Theory, etc.) also warrant further development and implementation. Based on this research, the students who have typical developmental levels can improve their level of social interaction with inclusive students.

Furthermore, researchers can enrich implementations in related fields and GIESIP can be provided for students with typical development levels to develop their social acceptance and perceived social support skills toward inclusive students.

### **Limitations**

This research is limited to elementary school students in that the participants of the study are the fourth-grade students who we randomly selected in the Mamak district of Ankara Province in the 2016–2017 academic year. The study is limited to this scope as the students who have typical developmental levels are included. The data obtained from the study are limited to the characteristics measured by the Social Acceptance Scale (SAS), Perceived Social Support Scale (PSSS-R), and Gazi Inclusive Environment Social Integration Program (GIESIP).

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