

The Effect of Story Reading Activity on Attitudes of Typically Developing Students Towards Students with Special Needs*

Zehra Keşci¹Yahya Çıkılı²

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Making children with special needs a part of society depends on others' accepting them with their differences and supporting them in considering their needs. For this reason, various activities can be used as tools to develop social tolerance and demonstrate positive attitudes toward children with special needs. Some of these activities include informing, drama, and reading children's books. The purpose of this study was to investigate the effects of the reading storybook activity on the attitudes toward students with special needs in students who demonstrate typical development. The study used a mixed-method design. The study group was composed of 84 third-grade primary school students who received education in the Ağrı city center. Data were collected through the Student Interview Form developed by the researchers and the Social Acceptance Attitude Scale developed by Siperstein (1988); reliability and validity for the Turkish translated form were performed by Civelek (1990). Results showed that the Social Acceptance Scale post-test data demonstrated differences in favor of the experimental group students who were exposed to the reading storybook activity compared to the control group post-test data. Besides, the students reportedly found the activity enjoyable, and at the end of the activity, they stated many positive views about students with special needs.

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Keywords: Individual with special needs, special education, inclusive education, attitude.

INTRODUCTION

In every country in the world, self-disclosure has its own national education policy. These policies are affected by factors such as technological developments, legal responsibilities, human needs and changing social structures and understandings (Aktel & Erten, 2017). Inclusive education has also taken its place as a key term in education on the world's agenda (Fajrianti & Purwanti, 2021). In its most basic form, inclusive education can be defined as individuals' benefiting from the education services which they need without any discrimination by language, religion, race, gender, age, social status or disability (Eşici & Doğan, 2020). Many countries have started to build an education service understanding in which separate education institutions are ruled out and the individual needs of students are met (Bilsin & Başbakkal, 2014).

This change process has also been experienced in Turkey. International agreements and national laws are most important factors related to improving the rights of individuals with special needs in the field of education in the country (Aksoy & Şafak, 2020; Demirtaş, 2019; Elmacı, 2022). Significant advances have been observed in this field, especially with the launch of legislative decree no 573 ("Decree law on special education," 1997). In line with the aforementioned international agreements and the Constitution of the Republic of Turkey, the Ministry of National Education (MEB) revised the Special Education Services ("Regulation on special education services," 2018). Within the framework of the principles indicated in the related regulation, education and the instruction needs of students with special needs are conducted taking into consideration their individual characteristics at the earliest time possible, with the cooperation of family-school-other people and institutions, and in line with the needs and competences of children ("Regulation on special education services," 2018) One of the important stakeholder groups of this process are students, who demonstrate typical development and constitute inclusive classrooms (Özkubat et al., 2016).

Some studies have highlighted the different effects of inclusive education environments for both students with typical development and students with special educational needs. These effects have been analysed under academic and social skills headings (Akın & Sani-Bozkurt, 2021; Kart & Kart, 2021). In inclusive education, all students should assume responsibility for each other's education and a positive classroom environment needs to be created so that they can succeed in both academic and social skills (Kargın & Baydık, 2002). Activities which can catalyse the creation of a positive classroom atmosphere

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¹Necmettin Erbakan University, ksczhr@gmail.com, orcid.org/0000-0001-9173-412

²Necmettin Erbakan University, ycikili@hotmail.com, orcid.org/0000-0002-1144-9095

with the participation of all students provide students with special needs with equal education opportunities and increase the social skills and participation of all students (Fernandez-Villardón et al., 2020). Some studies have reported that children with special needs struggle with attitudes such as serious discrimination in their education process (Krull et al., 2014; Lindsay & McPherson, 2012).

Several studies have reported that interventions for changing the attitudes of students with typical development toward children with special needs and developing their social skills were effective and that children demonstrated more helpful and accepting behaviors after these interventions (Álvarez-Delgado et al., 2021; Özkan Yaşaran et al., 2014). Increasing the skills possessed by students with special needs could also be another way of changing the attitudes of children with typical development. Travers and Carter (2022) reported increased social acceptance of students with typical development who provided peer support in education activities for students with special needs. A recent study in Turkey investigated the instruction of academic skills to children with special needs through peers and found an increase in the academic skills of peers with special needs and more positive attitudes of children with typical needs toward children with special needs (Erol, 2021). Peers who demonstrate typical development can therefore play an important role in increasing the academic success of individuals with special needs and reintegrating them into society (Aktan et al., 2019)

Considering all these findings, teachers need to develop suitable interventions by also determining the needs of students with typical development in their classrooms. Reading stories is one of the activities which can be used for these interventions. Reading stories used within the scope of values education in pre-school and primary-school education is a frequently conducted technique by teachers to teach universal and national values (Uzun & Köse, 2017). These sources, which are rich in terms of empathy, respect for individual differences and cooperation, can be highly effective (Ogur & Şam Altunay, 2021). Picture books are effective tools that could have an impact on children's self-perception as well as their perceptions of individuals who are different from them (Eroğlu, 2022; Golos et al., 2012). Considering that it could play a role in the social acceptance of students with special needs, this study investigates the effects of reading stories which include characters with special needs on attitudes toward students with special needs. An analysis of the studies carried out in Turkey indicates that mainly document analysis studies have been conducted concerning story books including characters with special needs (Ergin et al., 2023; Kaymaz, 2017; Kırkgöz & Diken, 2019; Öztürk et al., 2022). Even so, experimental studies carried out in Turkey are limited. One of these studies was conducted by Erdoğan and Baş (2018), who prepared a creative drama program using storybooks with special needs heroes and applied it to 4-6-year-old children. After the application, it was found that the pupils exhibited more positive attitudes toward individuals with special needs. Therefore, the current study contributes to the literature and provide teachers and families with a perspective on including students with special needs in education environments.

Purpose of the Study

The purpose of this study was to investigate the effects of reading stories on the attitudes of students demonstrating typical development toward students with special needs. In line with this general purpose, answers to the following questions were sought:

1. What are the pre-test scores of experimental group students on the Social Acceptance Attitudes Scale?
2. What are the post-test scores of experimental group students on the Social Acceptance Attitudes Scale?
3. What are the pre-test scores of control group students on the Social Acceptance Attitudes Scale?
4. What are the post-test scores of control group students on the Social Acceptance Attitudes Scale?
5. Is there a significant difference between the post-test scores of the experimental and control groups students?
6. What are the views of experimental group students about the story-reading activity?

METHOD

Research Design and Research Variables and Ethics

This study used a mixed-method research design. In its simplest form, this can be defined as research in which data are collected using more than one method to enhance their reliability and validity. This method allows for minimizing the disadvantages of qualitative and quantitative data (Baki & Gökçek, 2012). A sequential explanatory mixed model was used in this study, but employed the quantitative method more predominantly than the qualitative method. The effect of the practice was measured using quantitative data collection tools, and the views of the experimental group regarding the practice were obtained using the qualitative and quantitative methods in tandem. The dependent variable of the study was the attitudes of students demonstrating typical development towards students with special needs and the independent variable was the story-reading activity including characters with special needs. The factor considered for determining the independent variable of the study was that there are limited numbers of books in Turkey which include characters with special needs. The study was conducted after permission had been obtained from the Scientific Research Ethics Committee of Ağrı İbrahim Çeçen University (dated 23.02.2022 and numbered 63).

The Study Group and the Books Used in the Study

The study group comprised 84 third-grade students who were randomly selected from a primary school in Ağrı City Center. Table 1 (in Appendix 1) gives the descriptive characteristics of the students who were involved in the study. The average age of the experimental group students was 8.86 ± 0.647 and the average age of the control group students was 9.00 ± 0.671 ; the difference between the groups was not statistically significant ($p > 0.05$).

Of the participating experimental group students' mothers, 4.8% were education sector employees (teacher, director, qualified instructor, academic and so on), 2.4% were civil servants (all institutions), 4.8% were workers (all worker status in private and state institutions) and 8.1% were housewives. Of the participating control group students' mothers, 14.3% were education sector employees (teacher, director, qualified instructor, academic and so on), 2.4% were security sector employees (soldier, police officer, security staff, watchman, guardian or similar), 2.4% were civil servants (all institutions) and 76.2% were housewives; the difference between the groups was not statistically significant ($p > 0.05$). Of the participating experimental group students' fathers, 14.3% were education sector employees, 2.4% were health sector employees (doctor, nurse, pharmacist, paramedic and similar), 9.5% were security sector employees, 9.5% were civil servants in all institutions, 9.5% were workers in private and state institutions and 54.8% were employed in other occupation groups. Of the participating control group students' fathers, 26.2% were education sector employees, 2.4% were health sector employees, 11.9% were security sector employees, 7.1% were civil servants in all institutions, 4.8% were workers in private and state institutions and 47.6% were employed in other occupation groups; the difference between the groups was not statistically significant ($p > 0.05$).

Of the experimental group students, 91.9% had 1-3 siblings and 8.1% had 4-6 siblings; 81.1% of the control group students had 1-3 siblings and 18.9% had 4-6 siblings; the difference between the groups was not statistically significant ($p > 0.05$). Of the students in the experimental group, 97.6% did not have a sibling with a special need and 2.4% had a sibling with a special need. In the control group, 95.2% did not have a sibling with a special need and 4.8% had a sibling with a special need. The difference between the groups was not statistically significant ($p > 0.05$).

Of the experimental group students, 85.5% had no relatives with a special need and 14.5% had a relative with a special need; 85.7% of control group students had no relatives with a special need and 14.3% had relatives with a special need; the difference between the groups was not statistically significant $p > 0.05$.

Five books including characters with special needs were selected to be used in the study. Table 2 gives information about these books.

Table 2. Books Used in the Study

<i>Book title</i>	<i>Publisher</i>
1. <i>Teo can see better now</i>	Yapı Kredi Publications
2. <i>Natan is learning in a different way</i>	Yapı Kredi Publications
3. <i>Keyt's struggle</i>	Yapı Kredi Publications
4. <i>The inability to hear is something like this</i>	TUBİTAK Publications
5. <i>Knots in Ariyan's throat</i>	Yapı Kredi Publications

The views of ten experts, five from the field of child development and five from the field of classroom education, were gathered for the analysis of the content validity of the books to be used in the study. Table 3 shows the findings on content validity.

Table 3. Findings of Content Validity Ratio (CVR) of the Books Used in the Study.

<i>Book</i>	<i>Relevant</i>	<i>Irrelevant</i>	<i>Validity Ratio</i>
1	10	0	1.00
2	10	0	1.00
3	10	0	1.00
4	10	0	1.00
5	9	1	0.80
GENERAL CVR			0.98

The CVR values calculated for each book were compared with the minimum content validity criterion table standardized by Veneziano and Hooper (1997) and whether the items were significant according to Lawse's Minimum Content Validity Criterion (CVC) was analysed.

From the ten experts whose views were sought, the CVC value was 0.62. Since none of the books had values below this, it was considered non-significant and no books were excluded. The CVC calculated for all books was found to be 0.98. As the content validity index was higher than the content validity criterion, the content validity of the books used in the study was accepted to be statistically significant.

Data Collection Tools and the Data Collection Process

Data Data were collected using three tools: the Social Acceptance Scale, which was developed by Siperstein and Chatillon (1982) and whose Turkish reliability and validity were established by (Civelek, 1990) for the determination of social acceptance; a personal information form for the determination of the participant profile; and a semi-structured interview form. Expert opinions were received from an independent expert for the interview form, and necessary revisions were made. The final version of the interview form contained six questions.

After the necessary permissions were obtained, the elementary schools in Ağrı city center were determined by drawing lots, and the data collection process was started by contacting the administrators of the selected schools. The classes to compose the experimental and control groups were also determined by drawing lots. The parents of the pupils in the selected classes were given consent forms, and their consent was obtained to include their children in the study. Then pre-test data were collected from the experimental and control groups. Following this, the first researcher performed the story-reading activity with the experimental group for five days and one session for each book. The control group was not administered any interventions. Post-test data were collected from both the experimental and control groups after the practices were completed.

Data Analysis

Content analyses was performed in order to obtain qualitative data. Eight different statistical analyses were performed using SPSS 22.00 for the analyses of the quantitative data obtained from the Social Acceptance Attitudes Scale. These analyses included frequencies and percentages for descriptive analyses and the Kolmogrov-Smirnov test for normality distribution. Chi-square analysis was then performed to compare the pre- and post-test data and correlation analysis was performed to determine the direction of the relationship between the dependent and independent variables. A z

test, the Mann Whitney U test, the Kruskal-Wallis test and the LSD T3 Post-Hoc test were used for the analyses between the groups.

Analyses to test the normality distribution of the data showed that the Kolmogorov-Smirnov test values were not significant ($p>0.05$). Parametric tests were used as these findings indicated that the data were distributed normally.

Table 4. Kolmogorov-Smirnov Analyses

	EXPERIMENTAL GROUP		CONTROL GROUP	
	Social Acceptance Attitudes Scale Pre-test	Social Acceptance Attitudes Scale Post-test	Social Acceptance Attitudes Scale Pre-test	Social Acceptance Attitudes Scale Post-test
X	59.11	73.37	65.05	68.38
S.d.	15.714	7.976	11.760	10.378
Test	.103	.107	.147	.111
p	.200	.200	.200	.200

The Cronbach's alpha coefficient of the Social Acceptance Attitudes Scale was found to be .907, indicating a very high value.

FINDINGS

Findings of the First and Second Sub-questions

Table 5 shows a comparison of the experimental group students' Social Acceptance Attitudes Scale pre- and post-test scores before and after the story reading activity.

Table 5. Comparison of the Experimental Group Students' Social Acceptance Attitudes Scale Pre-test and Post-test Scores

	N	\bar{X}	S.d.	t	p
Pre-test	42	58.81	16.01		
Post-test	42	76.10	8.37	-8.307	.000

The mean scores of the Social Acceptance Attitudes Scale of the students in the experimental group were found to be 58.81 before the story-reading activity and 76.10 after the story-reading activity; the differences between the pre-test and post-test mean scores were found to be in favor of the post-test at a level of $p<0.05$. This finding indicates a significant difference between the Social Acceptance Attitudes Scale pre-test and post-test scores of the experimental group in favor of the post-test score. The Social Acceptance Attitudes Scale scores of the students in the experimental group therefore indicated an increase after the intervention (Graph 1).



Graph 1. Pre- and Post-test Mean Scores of the Experimental Group

Findings of the Third and Fourth Sub-questions

Table 6 shows the comparison of control group students' Social Acceptance Attitudes Scale pre- and post-test scores before and after the reading activity.

Table 6. Comparison of the Control Group Students' Social Acceptance Attitudes Scale Pre-test and Post-Test Scores

	N	\bar{X}	S.d.	t	p
Pre-test	42	64.07	11.12		
Post-test	42	68.38	10.38	-3.260	.002

The Social Acceptance Attitudes Scale mean scores of the students in the control group were found to be 64.07 before the reading activity and 68.38 after it; the differences between the pre- and post-test scores were found to be significant at a level of $p < 0.05$ in favor of the post-test. This finding indicates a significant difference in the control group students' Social Acceptance Attitudes Scale pre- and post-test scores in favor of their post-test scores. There was therefore an increase in the Social Acceptance Attitudes Scale scores of the control group students after the intervention (Graph 2).



Graph 2. Pre- and Post-test Mean Scores of the Control Group

As a general result, both the experimental and the control groups showed an increase in their Social Acceptance Attitudes Scale in the pre-test and post-test scores, but the greatest increase was found to be in the experimental group.

Findings of the Fifth Sub-question

Table 7 shows the comparison of the Social Acceptance Attitudes Scale pre- and post-test scores of the experimental and control groups.

Table 7. Comparison of the Social Acceptance Attitudes Scale Pre- and Post-test Scores of the Experimental and Control Groups

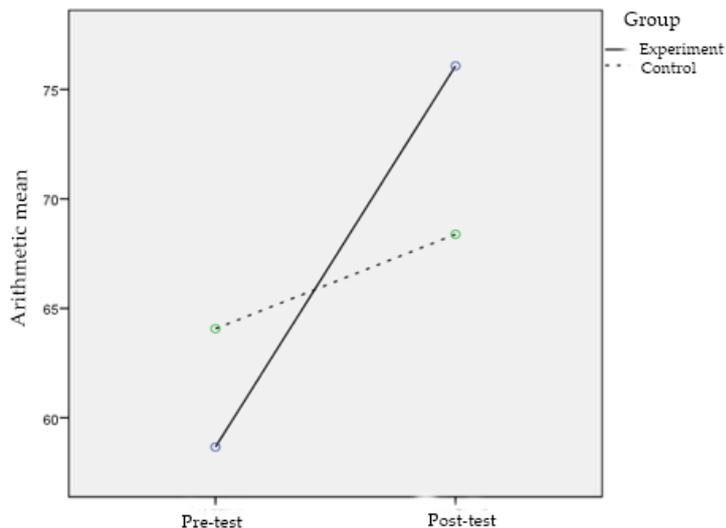
		N	\bar{X}	S.d.	t	p
Pre-test	Experimental	42	58.81	16.1	1.750	.084
	Control	42	64.07	11.12		
Post-test	Experimental	42	76.10	8.37	3.750	.000
	Control	42	68.38	10.38		

Before the story-reading activity, the Social Acceptance Attitudes Scale mean score of the students in the experimental group was found to be 58.81 and that of the control group to was found 64.07; the differences in the pre-test scores of the groups were not significant ($p > 0.05$). There were therefore no differences between the experimental and control group students in terms of their Social Acceptance Attitudes Scale pre-test scores, indicating that the study could be initiated (Graph 3).



Graph 3. Social Acceptance Attitudes Scale Pre- and Post-test Mean Scores of the Experimental and Control Groups

After the story-reading activity, the Social Acceptance Attitudes Scale mean score of the students in the experimental group was found to be 76.10 and that of the control group was found 68.38; the difference between the scores was significant in favor of the experimental group at a level of $p < 0.05$. As a result, the difference between the experimental and control group students after the intervention seems to be in favor of the experimental group in terms of their Social Acceptance Attitudes Scale post-test scores (Graph 4).



Graph 4. Post-test Mean Scores of the Experimental and Control Groups
Findings of the Sixth Sub-question

After the story-reading activity, the students in the experimental group were given the interview form containing six questions. The first two questions asked 'What did you think about students with special needs before the story reading activity we did?' and 'What did you feel about students with special needs before the story reading activity we did?'. In line with the answers given by the students, the answers given to these two questions were put together, and the findings are presented in Table 8.

Table 8. Responses to the First and Second Questions in the Experimental Group Interview Form

<i>Students' Responses</i>	<i>Participant Code</i>
I felt sorry for them	1, 32, 38, 43, 50
I pitied them	1, 3, 4, 6, 9, 13, 27, 34, 38
I felt bad	6, 11, 12, 16, 17, 29, 35
I thought that they had difficulties	4, 7
I thought that they needed help	8, 12, 13, 17, 21, 22, 26, 28
I thought that they were good	11, 36, 39, 42, 48, 49
I thought nothing	12, 23, 30
I was afraid of them	3, 7, 10, 18, 19, 21, 26
I did not want to play with them	15, 19, 27, 51
I thought ill of them	18, 31, 40
I was wondering why they were disabled	20, 22, 33, 34, 43, 49
I was prejudiced about them	24
I thought that they were different from us	32, 33, 45, 46, 50
I thought that they could do nothing	24, 46
I felt like we would have difficulties in getting used to each other	33, 34, 43, 45
I did not pay attention to them	23

As Table 8 shows, a significant number of the students who responded to this question stated that they felt sorry for the students with special needs, thought that they needed help, thought ill of them and had feelings such as pity and fear before the story-reading activity. They also stated that they were not very willing to play or speak with them. Some students, however, stated that they thought that these students were good. Even so, most of the student responses indicated that students with typical development had different negative thoughts about students with special needs. Some students stated that they wondered about them. It can therefore be stated that the students needed more information about having special needs. Some student responses were as follows:

I used to be afraid of them. I never wanted to speak with them. (Student 3)

I did not want to play with them. (Student 15)

I had ill thoughts about those children. (Student 31)

I wondered about their disease. (Student 34)

I felt so sorry for them. I pitied them. (Student 38)

I thought that they were very different from us. (Student 45)

The students were asked 'Were there any changes in your thoughts about children with special needs after the books we read?' and 'Were there any changes in your feelings about children with special needs after the books we read?'. Their responses are put together in one table and shown in Table 9.

Table 9. Responses of Students to the Third and Fourth Questions in the Interview Form

<i>Student Response</i>	<i>Participant Code</i>
There were changes	3, 6, 8, 9, 10, 11, 12, 13, 15, 19, 20, 21, 22, 24, 27, 28, 31, 32, 33, 34, 36, 38, 39, 40, 41, 42, 47, 49, 50
There were no changes	1, 4, 7, 18, 23, 29, 30, 35, 37, 45, 46, 48, 51

As Table 9 shows, most of the students stated that there were changes in their thoughts and feelings about children with special needs after the story-reading activity. The students were also asked 'Was the story-reading activity boring or fun for you?' and their responses are set out in Table 10.

Table 10. Responses of Students to the Fifth Question in the Interview Form

<i>Student Responses</i>	<i>Participant Code</i>
Fun	1, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 24, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51
Boring	23, 30

As can be seen in Table 10, a great majority of the students found the activity fun. Finally, the students were asked what they had learned from the story-reading activity; their responses are set out in Table 11.

Table 11. Responses of Students to the Sixth Question in the Interview Form

<i>Student responses</i>	<i>Participant Code</i>
I learned that they could recover	4
I learned how I can help them	6, 10, 19, 22, 26, 27, 38, 49, 50
I learned not to mock at them	7, 18, 20, 21
I learned how they communicate (sign language, etc.)	9, 12, 29, 51
I learned not to use bad words to them	13
I learned that they sometimes have great difficulties	11, 28
I learned about their problems	15, 23, 37, 40
I learned that they are actually like us	16, 24, 39, 46
I learned that they could also help us	17
I learned that I could play with them	27
I learned that children with special needs have special equipment (hearing aids, glasses, sticks, and guide dog, etc.)	45, 47
I learned why I should treat them well	33, 34, 42
I learned that they also have things they did well	35
I learned that they have some differences	48
I learned several good things	3

As Table 11 shows, after the story-reading activity, the students reported that they had learned that some children with special needs could recover or benefit from rehabilitation activities; they learned how to empathize with them; they learned that they could have difficulties maintaining daily activities; and they learned why they should not mock them or use bad words. Two of the students' responses were as follows:

I learned that they were good at doing things very well like us; for example, she was playing volleyball very well. (Student 35)

Disabled children are just a little different from us, that's it. (Student 39)

CONCLUSION AND DISCUSSION

The results of this study, which investigated the effect of reading storybooks including characters with special needs on the attitudes of students with typical development toward students with special needs, showed that reading storybooks had positive effects on the attitudes of students with typical development toward students with special needs. It was also found that the students found reading storybooks fun and learned various things about students with special needs.

Trepanier-Street and Romatowski (1996) studied 71 children with an average age of 70 months who participated in various activities and stories and found a relatively positive change in the attitudes of students with typical development towards children with special needs. Wilkins et al. (2016) examined third- and fourth-grade students' reactions to characters with special needs in storybooks and found that the responses of the students who had read the storybooks indicated positive changes in their attitudes.

Fajrianti and Purwanti (2021) used activities for children with typical development to learn about children with special needs and found a positive change in the attitudes of children with typical development towards children with special needs. Those results are parallel to the qualitative findings of the current study in that children sought answers to the things they were curious about by asking the researcher, and more positive expressions were found in the measurement tools used afterwards. In addition, some studies in Turkey have included informative activities about children with special needs, but they employed different implementations and did not use storybooks which included characters with special needs. One of those studies was conducted by Civelek (1990), who reported that students with normal development were informed about special needs and that students with special needs and students with normal needs were subsequently integrated. The students in the experimental group exhibited increased social acceptance attitudes toward students with special needs. Similarly, Özkubat et al. (2016) informed students with typical development and brought students with and without special needs together to promote their integration. The results showed significant changes in the attitudes of students with typical development. The results of both of those studies showed positive changes in the attitudes of students with typical development and the findings of both studies are similar to the quantitative findings of the current study.

An analysis of the studies conducted in recent years is as follows: in a study conducted with sixth-grade students, Pérez-Torralba et al. (2019) investigated the effect of para-sports awareness programs including simulation and information on improving attitudes towards individuals with special needs. The study was conducted with 88 participants and included experimental and control groups; it was found that the program had positive effects in improving the attitudes of the participants toward individuals with special needs. The study group again consisted of sixth-grade students. Kim and Lee (2019) investigated the effectiveness of a 90-minute single-session information program on attitudes towards students with hearing impairment. That study was conducted with 142 middle- and high-school students and included activities such as information activities, group discussions and listening with hearing aids. The study reported positive results in the attitudes of individuals with normal development towards individuals with hearing impairment. Unlike those two studies, the study group of the present study consisted of primary-school students; however, although the independent variable applied was different, the effectiveness findings obtained are similar. Schenk et al. (2020) investigated pre-school children's play behaviors toward dolls with and without special needs. The sixteen-week intervention observed children's play behaviors with normal dolls and dolls with Down's syndrome. The students were found to demonstrate more positive attitudes towards the doll with Down's syndrome at the end of the program in which they were exposed to this doll. Although the pre-test findings of that study showed that the attitudes of the experimental and control groups towards individuals with special needs were relatively positive, the post-test data of the experimental group ($M=76.1$) were significantly different from the post-test data of the control group ($M=68.38$), which is similar to the effectiveness findings of the present study.

Álvarez-Delgado et al. (2021) investigated the effect of an intervention program including information and direct contact on the attitudes of students aged 11-15 towards students with special needs. The program was found to be effective in the attitudes of the students in the experimental group, who demonstrated more positive attitudes. The average age of the participating students in the current study was nine years. Although the independent variables of the two studies were different, there was a positive increase in both in attitudes towards individuals with special needs. A twelve-session tripartite intervention program conducted by Freer (2022) with fourth-grade students similarly implemented cognitive, affective and behavioral interventions and the findings showed the effectiveness of the program. These studies showed that students' levels of knowledge about individuals with special needs increased and they reported more positive attitudes. In the current study, a separate information program was not organized. The books were read aloud to the students in a way that they could see the pictures, and then the researcher answered the students' questions about the main character, the characteristics of the main character, and the event. As shown by the qualitative data obtained in the study, the students learned various things at this stage. Some students stated that they

wondered about individuals with special needs and learned something about them. In this respect, the results agree with the quantitative and qualitative findings of the current study.

Some previous studies were conducted with adults. Harnek Kegan et al. (2022) investigated the effects of an awareness workshop for individuals with special needs on the attitudes of individuals with typical development towards individuals with special needs. This workshop, which included presentations, discussions and games, resulted in a positive increase in university students' attitudes towards individuals with special needs. Another study which included nineteen undergraduate students was conducted in Oman by Al-Yahyai et al. (2021). The pre- and post-test data indicated a significant difference after the special art education program and the students reported more positive attitudes towards individuals with special needs. These results support the quantitative and qualitative findings obtained in the current study. These findings can also be interpreted as indicating that negative attitudes decrease with the increase in experiences of diversity not only for children but also for adults. Here, which practice is more effective and/or efficient is the point which will guide future research.

LIMITATIONS

One of the limitations of this study is that the data were collected in a primary school located in Ağrı province center. Permission was requested from the parents about their children's participation, but since it was not possible to take the students whose permission could not be obtained out of the classroom, the implementation was administered to the whole class. Even so, only data from the students whose permission to participate could be obtained were used. In addition, this study was limited to the activities administered only to third-grade students. The small number of illustrated storybooks including main characters with special needs in Turkish is another limitation of the study, because it meant that translated books were used. In addition, this study involved the reading of storybooks including main characters with special needs by the researcher, which could have led to researcher bias. There is therefore a need to conduct research in different cities and with children of different age groups. In addition, there is a need for studies on the use of these storybooks in different activities in and out of the classroom (such as homework, reading-telling and drama).

RECOMMENDATIONS

- Studies conducted in Turkey include many qualitative studies on children's books including characters with special needs. Future studies could include experimental studies using these books.
- Primary education teachers, who play important roles in teaching values to children, could conduct studies on the regular use of these books.
- Programs prepared to include children with special needs in inclusive environments could also involve story books including characters with special needs.

Declarations

Conflicts of Interest

There is no conflict of interest between the authors in the planning, implementation, and reporting of this research.

Ethics Approval

This study was conducted with the permission of Ağrı İbrahim Çeçen University ethics committee dated 23.02.2022 and numbers 63. This research is an original study and has not been published elsewhere. The data obtained in the study and the analyzes were presented accurately and completely. The sources used in the research report were reported appropriately.

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The authors provide an equal contribution to this work.

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Appendix 1 Descriptive Information

Table 1. Descriptive Characteristics of the Students Involved in the Study

	EXPERIMENTAL		CONTROL		TEST
	n	%	n	%	
Age Min -Max	8-10 years		7-10 years		t=,988
$\bar{X} \pm S.d$	8,86	,647	9,00	671	p=,348
<i>Mother's occupation</i>					
Education sector employee (teacher, director, qualified instructor, academician, etc.)	2	4,8	6	14,3	
Security sector employee (soldier, police officer, security staff, watchman, guardian, etc.)	0	0,0	1	2,4	$\chi^2=4,394$ p=,44
Civil servant (all institutions)	1	2,4	1	2,4	
Workers (all worker status in private and state institutions)	2	4,8	1	2,4	
Housewife	34	81,0	32	76,2	
Other	3	7,1	1	2,4	
<i>Father's occupation</i>					
Education sector employee (teacher, director, qualified instructor, academician, etc.)	6	14,3	11	26,2	
Health sector employee (doctor, nurse, pharmacist, paramedic, etc.)	1	2,4	1	2,4	
Security sector employee (soldier, police officer, security staff, watchman, guardian, etc.)	4	9,5	5	11,9	$\chi^2=2,601$ p=,761
Civil servant (all institutions)	4	9,5	3	7,1	
Workers (all worker status in private and state institutions)	4	9,5	2	4,8	
Other	23	54,8	20	47,6	
<i>Number of siblings</i>					
1-3	34	91,9	30	81,1	$\chi^2=1,850$
4-6	3	8,1	7	18,9	p=,174
<i>Having a sibling with a special need</i>					
No	41	97,6	40	95,2	$\chi^2=,447$
Yes	1	2,4	2	4,8	p=,504
<i>Having a relative with a special need</i>					
No	36	85,5	36	85,7	$\chi^2=,015$
Yes	6	14,5	6	14,3	p=,902