



Experiences of Social Studies Pre-Service Teachers Designing Materials for Special Education Students: From the Exhibition “Nothing Can Stop Education”¹

Research Article

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ABSTRACT

This study has two objectives. The first objective of the study is to determine the effect of the process of designing teaching materials for student with special educational needs (SEN) on the attitudes of social studies pre-service teachers towards the training of student with SEN. The second objective is to reveal the opinions of pre-service teachers about the experiences they have had in the process of preparing and exhibiting material for student with SEN. The study was conducted using the mixed research method. The “Attitude Scale Regarding the Training of Individuals with Disabilities” was used to obtain quantitative data in the study. The scale was applied to the study group twice, as pre- and post-attitude test. The qualitative data were collected through the interview form with five standardized open-ended questions. The study group of the study consists of 52 social studies pre-service teachers. In the analysis of the qualitative data obtained, it was determined that it is not normally distributed and the data were analyzed using the Wilcoxon Signed Rank Test among non-parametric tests and qualitative data were analyzed using the content analysis. According to the quantitative and qualitative data obtained, it was found out with regard to pre-service teachers that;

- There is a significant difference in favor of the post-attitudes between their attitudes towards the training of student with SEN,
- At the end of the process, there is a high level of positive change in their opinions about student with SEN, and in this context, they have become more sensitive about these students, their prejudices are broken down, and they can empathize with them more strongly,
- Their biggest source of motivation in the process of preparing materials for student with SEN is again special education students and contributing to their education by designing educational materials for these students,
- The fact that they get support from a school with special education classes in the process of material preparation positively affected the process in terms of guidance, ,
- It was found out that they had the biggest challenges in this process in the stage of planning and designing.
- They felt proud/glad, happy, useful and highly self-confident in the process of the exhibition of their materials.

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Keywords:

Special Education, Material, Social Studies, Pre-Service Teacher, Student with SEN

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INTRODUCTION

One of the most important dynamics for a society to develop and reach the level of contemporary civilization is education. In this respect, "education" is among the basic institutions of society and is considered to be one of the fundamental rights of every individual. It is stated in Article 28 of the Convention on the Rights of the Child that "States parties recognize the right of the child to education" (CRC, 1989), and it is stated in Article 26 of the Universal Declaration of Human Rights that "Everyone has a right to education" (UDHR, 1948). In both conventions, equal opportunity in education has been adopted as the basic principle of the right to education. In this respect, all individuals in society have the right to equally benefit from this right in terms of language, religion, race, gender, or physical characteristics. States parties signing this convention are obliged to provide the necessary conditions for each individual in their communities to benefit from this right equally. Turkey is among the states parties of these two conventions. In this context, in our country, formal and non-formal education institutions have been opened to protect the right to education, curriculums have been prepared, primary education has been made compulsory and free to increase the schooling rate, and scholarship support has been provided to students with financial needs.

Although education is one of the most fundamental rights of human beings, some individuals cannot sufficiently benefit from these rights due to some restrictive reasons. The physical, mental, linguistic or social barriers that individuals have are the most important ones of these restrictive reasons. These individuals differ from their peers and need support education due to the barriers they have (MEB, 2014). Special education applications have been developed so that these individuals can benefit from educational opportunities. In our country, a statement was made that support education should be given to these students with Decree-Law No. 573. Within the scope of the Decree-Law specified, appropriate education and training programs have been prepared for these students to receive the least restrictive education. Within the scope of these education programs prepared, according to disability status, some students receive education in rehabilitation centers, some of them continue their education in special education classes in schools, and some of them receive inclusive education in normal schools and classrooms after having education in rehabilitation centers.

The main objective of inclusive education is to ensure that students with disabilities become socialized and gain life skills that are appropriate to society's rules (Kaner, 2000) because the socialization of students with disabilities is ensured while it is possible to cause cognitive retardation if inclusive education is not conducted in accordance with its purpose. In this respect, the least restrictive environment should be provided by taking into account the disability status of the student who will be included in inclusive education (Kırcaali-İftar, 1998). The qualifications and competencies of teachers who will provide inclusive education, as well as the environment, are important in inclusive education because only the fact that students with disabilities are physically in the same class with normal students is not enough for their education, but also their education should be supported by special support education opportunities (Kargın, 2004). In this respect, teachers should use appropriate teaching methods, techniques, and materials for these students by paying attention to it.

When students with disabilities start primary school within the scope of inclusive education, they encounter a single teacher and communicate with this teacher. This can be an advantage for a teacher to recognize the inclusive student better in the long term and to plan teaching in accordance with him/her. However, after passing to secondary school, students with disabilities encounter a different branch teacher for each course, and these students should adapt to each course and teacher again. In this context, the quality of education that special education students will receive in secondary school, where there are significant gains in cognitive, affective, social and psychomotor domains, is very important especially before the transition to secondary education because students acquire the skills related to the choice of profession and further adaptation to social life due to the gains they will learn during this period. The education of inclusive and special education students should also be supported in secondary school to ensure the socialization of these

students like normal individuals in their future lives. Effective education to be given to these students in secondary school will ensure that these students become more active individuals in the future (McDonnell, Hardman and McGuire, 2007).

Teachers' attitudes towards inclusive students and their support for their education are important (Yuknis, 2015) so that students with disabilities can more easily adapt to this situation they experience during the transition to secondary school. Studies have revealed that teachers and pre-service teachers generally have negative attitudes towards inclusive education, but the attitudes of teachers and pre-service teachers change positively if information is given about inclusive education or students with disabilities are communicated (Shade and Stewart, 2001; Sucuoğlu, 2004; Orel, Töret and Zerey, 2004; Şahbaz and Kalay, 2010; Taylor and Ringlaben, 2012). In addition to positive attitudes for effective inclusive education, it is also necessary that teachers can design the curriculum flexibly according to student needs (Takala, Pirttimaa and Törmanen, 2009). Furthermore, encouragement of the inclusive student's attendance in the course and the creation of the learning environment by the teacher accordingly also increase the quality of inclusive education (Idol, 2006). Kayaoğlu (1999) indicates that teachers may have negative attitudes towards inclusive education since they do not have the equipment specified.

Based on the information provided above, it can be said that teachers or pre-service teachers who have been informed about students with disabilities or about special education or who have made contact with these students have more positive attitudes towards these students. The positive attitude directly affects the behavior of people (Kağıtçıbaşı, 2006). Therefore, it is important to create environments which can positively affect teachers and pre-service teachers' attitudes towards inclusive and disabled students. In particular, the information to be obtained by pre-service teachers, who will be the basic guides of education in the future, about individuals with disabilities during pre-service training can be effective in developing positive attitudes towards them. Only "Special Education" course is included in teaching undergraduate programs (except for Special education departments) for pre-service teachers to have information about the education of students with disabilities during pre-service training. Within the scope of this course, pre-service teachers are given theoretical knowledge regarding the issues such as special education, special education programs, special education students and inclusive education. However, to provide only theoretical knowledge may not be effective enough on pre-service teachers' attitudes towards these students. In this respect, in addition to theoretical knowledge, the fact that pre-service teachers make contact with students with disabilities or design different activities for them will positively affect their attitudes towards students with disabilities. However, as it is stated above, there is still no course in which pre-service teachers directly contact special education or inclusive students or perform applications for them in teaching undergraduate programs of the Council of Higher Education. According to the data from the 1st semester 2016-2017, the number of inclusive students who continue formal education is 219.728 (Aile ve Sosyal Politikalar Bakanlığı, 2017). This figure is quite high data, and it is increasing every year upon examining the statistics of past periods. Therefore, the possibility that pre-service teachers will encounter inclusive students in their future professional life is increasing with every passing year. In this respect, all information they will get about these students in the pre-service period, their contacts with them or the applications they will perform for them will be beneficial for their professional development.

In this study which was prepared based on this situation, it was considered that pre-service social studies teachers' processes of designing and presenting materials for special education students would positively affect their attitudes towards special education and inclusive students, and that this positive attitude would be reflected positively on the education of inclusive students who would be present in their classes in the future. The materials in the study were designed for special education students, and the phrase of special

education students is frequently used. The phrase "special education students" was abbreviated and was used in the form for student with SEN to avoid the unnecessary use of words in the rest of the study.

The Aim of the Study

This study has two aims. The first aim of the study is to determine the effect of the process of designing teaching material for student with SEN on pre-service social studies teachers' attitudes towards the education for student with SEN. The second aim is to reveal the opinions of pre-service teachers about the experiences they have in the process of preparing and presenting materials for student with SEN. The following sub-problems were determined to achieve the aims of the study.

- 1- Is there a significant difference between pre-attitudes and post-attitudes regarding of pre-service teachers who design materials for student with SEN?
- 2- How is the process of designing materials for student with SEN affect pre-service teachers' perspectives on these students?
- 3- What are the sources of motivation of pre-service teachers in the process of designing materials for student with SEN?
- 4- How is receiving support from a school affect pre-service teachers' material development processes in the preparation, application and presentation stages for student with SEN?
- 5- What are the difficulties faced by pre-service teachers in the process of designing materials for student with SEN?
- 6- What are the opinions of pre-service teachers about what they felt in the process of exhibiting the materials prepared?

METHOD

Study Design

The study was carried out using a mixed research method in which quantitative and qualitative methods are used together. The reason for selecting the mixed method was to provide data diversity and to attempt to reduce the limitations of both types to a minimum level (Creswell, 2013). The nested design, one of the mixed research designs, was used in the study. Although quantitative and qualitative designs performed in the traditional way are used together in the nested design, a design can be used by being embedded in the other design. For instance, in a study process conducted by a qualitative method, data can also be collected using a quantitative design to support it (Creswell and Clark, 2015). In this study, the single group pretest-posttest experimental design, one of the quantitative methods, was primarily used. For this purpose, the pre-attitude test was applied to 52 pre-service teachers continuing their education in the Social Studies Teaching Program in the 2017-2018 academic year for the purpose of determining their attitudes towards the education of individuals with disabilities. Then, these pre-service teachers were made to design different materials for special education students. After this intervention program performed, the same scale was used as the post-attitude test. The materials prepared by pre-service teachers were exhibited at the end of the term, and special education teachers and students who had access were provided with an opportunity to examine these materials. The interview method, one of the qualitative research methods, as well as the quantitative design, was used in the study. For this purpose, semi-structured interview questions were prepared for the experiences gained by pre-service teachers in the intervention program applied to them during the test and the effect of this program on their perspectives on students with SEN. The qualitative data were collected along with the post-attitude data at the end of the study. The study met the nested design features with the specified features.

To ensure reliability in qualitative studies is more different and difficult than quantitative studies. In the literature, it is stated that the most important way to ensure reliability in qualitative studies is to increase credibility (Holloway and Wheeler, 1996). Long-term interaction, member checking, and peer debriefing are the ways to increase credibility. In this study, the most important factor that increased reliability was the long-term interaction with the participants. Long-term interaction increases participants' trust in the researcher and ensures that they give more friendly and accurate answers. For this purpose, the researcher was involved in a total of forty-four hours of interaction with the participants in eleven weeks, four hours in a week for this study. Furthermore, each preservice teacher among the participants was involved in a total of six hours of interaction student with SEN with three groups, two hours with each group. In particular, this interaction established between the participants and student with SEN was effective in breaking down preservice teachers' prejudices towards student with SEN, developing a new understanding for them and the positive reflection of this situation on the study. The interaction process is described in more detail in the treatment process section of the study. Peer debriefing is another method used to increase reliability in this study. Support was received from a domain expert in the development of data collection tools, coding of the data obtained and the creation of themes.

Data Collection Tools

Since the study was carried out with the mixed method, quantitative and qualitative data collection tools were used together. The "Attitude Scale for the Education of Individuals with Disabilities" (Kösterelioğlu, 2013) was used to obtain the quantitative data of the study. There are 20 items in the scale prepared in a five-point Likert type. The reliability Cronbach's Alpha coefficient of the scale was determined to be 0.89. In this study, the scale was applied to pre-service teachers as a pre-attitude test at the beginning of the term to determine the attitudes of pre-service teachers towards the education of students with disabilities in the material designing process for students with SEN. After pre-service teachers were given a total of 44 hours of education, consisting of five-week theoretical and six-week practical education for four hours in a week, on designing materials for students with SEN, it was applied again as a post-attitude test.

The interview form including semi-structured five open-ended questions prepared by the researcher was used to collect qualitative data in the study. After the questions were prepared, the form was examined by two domain experts (academicians) and a linguist (academician), and it was rearranged in accordance with the feedback received from them. The interview form was applied to pre-service teachers together with the post-attitude scale.

Data Analysis

Quantitative and qualitative data analyses were used together in the study. At first, the normality test was applied to determine which of the parametric or nonparametric tests would be applied to the quantitative data set obtained. The Kolmogorov-Smirnov and Shapiro-Wilk tests can be used for this, as it is mentioned in the literature. The Shapiro-Wilk test is used if the study group is smaller than 50, and the Kolmogorov-Smirnov test is used if it is greater than 50 (Büyüköztürk, 2011). Both the Kolmogorov-Smirnov and Shapiro-Wilk tests were applied since the group size of this study was 52, in other words, it was close to the limit value; as a result of the analysis performed, it was determined that the quantitative data were not normally distributed. Normality test results of the study are presented in Table 1.

Table 1: Pre-attitude and post-attitude normality test results

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-attitude	.099	52	.200*	.948	52	.024
Post-attitude	.253	52	.000	.705	52	.000

a. Lilliefors Significance Correction

In accordance with the normality tests results, the analysis was performed using the Wilcoxon signed-rank test, one of the non-parametric tests, for the related measurements in the study. As a result of this analysis performed, it was determined that there was a significant difference between the pre-attitudes and post-attitudes of pre-service teachers in favor of post-attitudes. The effect size (r) was calculated to determine how much the change in pre-service teachers' post-attitudes was affected by the intervention program (designing materials for special education students). The effect size is used to determine the level of the independent variable on the dependent variable and to express how significant the result obtained in the study is. For this purpose, although there are many effect size calculation methods, the r effect size calculation formula which is used for repeated measurements and non-parametric tests was used in this study. The effect size formula and description of the letters in the formula are explained below.

$$r = \frac{Z}{\sqrt{N}} \quad r = \text{Effect size} \quad Z: \text{z score} \quad N: \text{Number of students}$$

In this context, the r size obtained is interpreted as the "small" effect size if it is $r=.10$, as the "medium" effect size if it is $r=.30$, and as the "large" effect size if it is $r=.50$ (Field, 2005).

Qualitative data were analyzed using the content analysis. First of all, a code was given for each student in the form of S1, S2, S3. The answers of each student in the interview form were read one by one starting from the first question, and the codes were created first for each question. After the codes were created, the same or similar codes were collected under the same theme and given frequency. This procedure was performed separately for each question.

Procedure

The application process of this study was performed in three stages consisting of preparation, design, and exhibition. In the preparation stage, the researcher determined the schools where there are special education classes that include different disability groups. In this context, a secondary school affiliated to the Ministry of Education with special education classes for students with visual, hearing and mental disabilities was determined as the study school. Interviews were conducted with the principal and special education teachers of the school determined, and the study was explained to them. Necessary permissions were obtained from the Directorate of National Education to make observations about students with SEN studying in the school from which support was received for the study. This process was performed during the first week of the fall semester of the 2017-2018 academic year. In the second week during which education and training started, the study to be carried out was presented to pre-service teachers, and the pre-attitude test was applied to social studies pre-service teachers. Thus, the first data of the study were collected. In the last part of the preparation stage, pre-service teachers were informed about the observation they would make in special education classes, and the necessary plans were done for it. The main reason for the observation was to ensure that pre-service teachers in the study group would obtain information about students with SEN and the teaching materials that these students needed in the teaching environment in this process since they had not received any education on students with SEN previously. In this process, each pre-service teacher made

observations in all special education classes and decided for which disability group he/she wanted to design materials at the end of the observations. This process lasted for three weeks.

In the second stage of the study, after pre-service teachers decided on the disability group for which they wanted to design materials, theoretical and practical education required for the material designing process was initiated. In this process, firstly, the researcher gave a total of five-week theoretical information about the material designing process for four hours in a week to pre-service teachers. During the first two weeks of this process, pre-service teachers also continued their observations in the school. After the observation process was over, pre-service teachers started to design the materials they determined based on the theoretical information given. In this stage, pre-service teachers received support from the instructor and special education teachers working in the school. Pre-service teachers brought the materials designed by them to the class and presented them to their friends. During the presentation stage, the deficiencies in the materials were determined, and the materials were rearranged. The rearranged material was taken to special education classes according to the disability group, and the application was performed with students with SEN. Pre-service teachers finalized their material in accordance with the feedback of special education teachers after the application they performed with students with SEN.

In the exhibition stage, all prepared materials were presented in the exhibition area for two days, the students, parents, teachers, and administrators related to the special education field were invited to the exhibition, and it was ensured that the prepared materials were examined by all relevant people. One week after the exhibition, the final data of the study were collected by applying the post-attitude test and interview form to pre-service teachers. The procedure of the study is presented in summary in Figure 1.

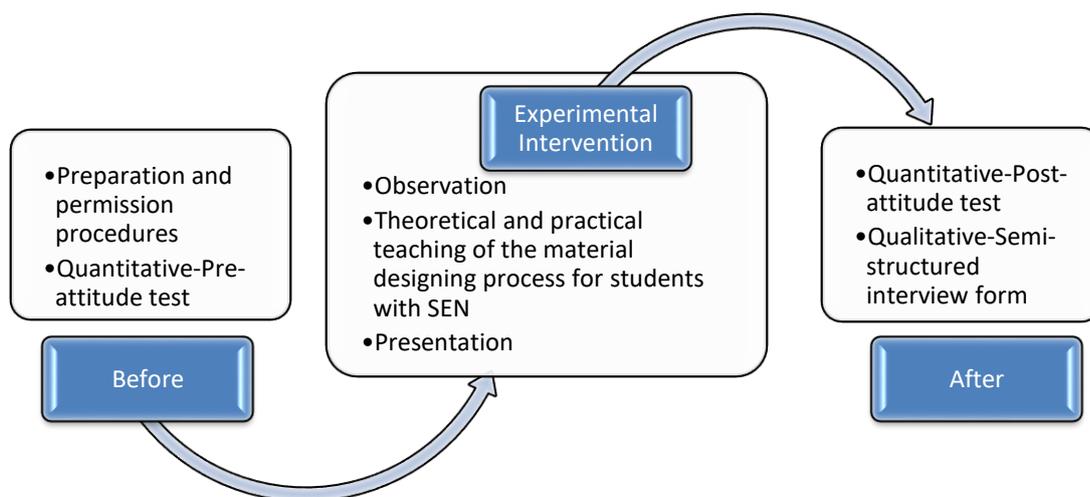


Figure 1: Procedure of the study

Study Group

52 pre-service teachers studying in the third grade of Adiyaman University, Faculty of Education, Social Studies Teaching Program in the 2017-2018 academic year constituted the study group of the study. Findings on pre-service teachers' gender are explained in Table 2.

Table 2: Findings on pre-service teachers' gender

Gender	N
Female	29
Male	23
Total	52

Findings

Findings of the study are explained in this section. The findings related to the sub-problems of the study were converted into a table and interpreted. In this context, the first sub-problem of the study is "Is there a significant difference between pre-attitudes and post-attitudes regarding the education of students with SEN of pre-service teachers who design materials for students with SEN?". The findings related to the first sub-problem are explained in Table 3.

Table 3: Wilcoxon Signed-Rank Test Results of Pre-service Teachers' Pre-attitude and Post-attitude Scores Obtained from the Attitude Scale for the Education of Individuals with Disabilities

Post-attitude - Pre-attitude	N	Mean Rank	Sum of Rank	z	p	Effect size (r)
Negative Rank	1	5	5	6.11*	0.00	0.84**
Positive Rank	49	25.92	1270			
Equal	2					
Total	52					

* Based on negative ranks

** High effect size

In order to test the first sub-problem in the study, the average scores obtained by pre-service teachers in the study from the Attitude Scale for the Education of Individuals with Disabilities and the standard deviation values were calculated, and the Wilcoxon signed-rank test was applied to test whether there was a significant difference between the values obtained from the two associated measures. When Table 3 was examined, it was determined that there was a significant difference between pre-service teachers' attitudes towards the education of individuals with disabilities in favor of post-attitudes ($z=6.11$, $p<0.05$). Furthermore, in the study, the effect size analysis was performed to determine how much the process of designing materials affected pre-service teachers' attitudes towards the education of individuals with disabilities. As a result of the analysis performed, it was determined that the material design process was highly effective on the change in pre-service teachers' attitudes ($r=0.84$).

The second sub-problem of the study is "How is the process of designing materials for students with SEN affect pre-service teachers' perspectives on these students?". The findings on this sub-problem are explained in Table 4.

Table 4: Findings on the effect of the material designing process on pre-service teachers' perspectives on students with SEN

Theme	Opinion	f
Cognitive	Their education should be supported	18
	They are not different from other students	12
	Recognizing the characteristics for student with SEN	8
	Individual benefit can be provided	7
	I can take part in similar projects	4
Emotional	My empathy power has developed	19
	I have gained sensitivity	17
	My prejudices have been broken	14
	Giving help instead of feeling pity	12

When Table 4 was examined, it was revealed that the process of designing material for students with SEN affected pre-service teachers' perspectives on these students in the cognitive and emotional dimensions. In this context, in the cognitive dimension, pre-service teachers mostly stated that they had more information

regarding the fact that the education of students with SEN should be supported (f=18) and that they are not different from other students (f=12). In the emotional dimension, pre-service teachers stated that their empathy skills developed with SEN students (f=19), their sensitivity levels increased (f=17) and their prejudices were broken (f=14) during this process. This finding can be interpreted that the process of designing materials for students with SEN increased pre-service teachers' levels of knowledge on students with disabilities and that their attitudes towards them were positively changed with the increasing level of knowledge. The opinion of participant No. 51 on this question:

"We didn't know the characteristics of these students before we prepared the material. We attended their class and observed them. I understood that the only difference between them and us was the point of view. For instance, our visually impaired brother did not see but felt and heard more than us. Indeed, they could also learn easily like us. This material taught me not to pity but to help them."

The third sub-problem of the study is "What are the sources of motivation of pre-service teachers in the process of designing materials for students with SEN?". The findings on this sub-problem are explained in Table 5.

Table 5: Findings on the sources of motivation of pre-service teachers

Opinion	f
Target group (SEN)	31
Supporting the education for student with SEN	31
Instructor	19
Friends	10
Feeling of success	9
Exhibition	8
School	5

The primary aim of including this sub-problem in the study was to determine the sources of motivation of pre-service teachers, who were not previously present in a learning environment with any disabled student, in the process of preparing materials for these students. When Table 5 was examined, it was determined that pre-service teachers' sources of motivation in this process were mostly students with SEN (target group), supporting the education of these students (f = 31) and instructor (f=19). When this finding is evaluated together with the previous finding, it can be interpreted that the information and positive attitudes of pre-service teachers regarding students with disabilities in the material designing process were also reflected in their sources of motivation. The opinion of participant No. 40 on this question:

"Firstly, the fact that one of these special students could be study in my class during my professional life and the question of how I could teach them were the sources of motivation for me. I thought that life should be made easier for them by developing empathy with them, and I have prepared this material. Furthermore, I was further motivated by the fact that the material would be exhibited, and one-on-one interviews with special education students and teachers."

The fourth sub-problem of the study is "How is receiving support from a school affect pre-service teachers' material development processes in the preparation, application and exhibition stages?". The findings on this sub-problem are explained in Table 6.

Table 6: Findings on the effect of receiving support on pre-service teachers' material development processes

Theme	Opinion	f
Preparation process	Recognizing the characteristics for student with SEN	32
	Observation	28
Guidance	Choosing an idea/subject	36
	Motivation	6
Practice	Realizing the deficiencies	12

As it is stated above, pre-service teachers received support from the special education teachers of a secondary school affiliated to the MEB with special education classes in the process of designing materials for students with SEN. This sub-problem was created to determine the effect of this support received on pre-service teachers' materials designing processes. As a result of the coding of the obtained data, it was determined that this support had different effects on different stages of pre-service teachers' material development processes. When Table 6 was examined, it was determined that the support mentioned was more effective in the guidance process than the material designing process of pre-service teachers. Pre-service teachers stated that this support was effective in choosing an idea/subject (f=36) and motivation (f=6) in the guidance process. They stated that school support was effective in recognizing the characteristics of students with SEN (f=32) and observation (f=28) in the preparation process and in realizing the deficiencies (f=12) in the testing process. The findings obtained can be interpreted that receiving support from institutions and organizations that have direct contact with SEN students in the processes of designing materials or alternative activities for students with disabilities using a new teaching method or technique will have a positive effect on pre-service teachers' gains in this process. The opinion of participant no. 25 on this question:

“Due to our observations during the preparation process, we learned these students’ interest and attitudes towards the lesson better. Teachers in this school guided us on how we should communicate with these students and in which subjects we should prepare material. We saw the mistakes we made during the implementation stage, and the teachers helped us. School support made it easier for me to prepare material for these students.”

The fifth sub-problem of the study is "What are the difficulties faced by pre-service teachers in the process of preparing materials?". The findings on this sub-problem are explained in Table 7.

Table 7: Findings on difficulties faced by pre-service teachers in the process of designing materials

Theme	Opinion	f
Plan/Preparation	Finding an idea	19
	Disability group	18
	Material supply	11
Development process	Design	28
	Cost	3
	Time	2

Pre-service teachers' opinions on the difficulties faced by them in the process of designing materials for students with SEN were grouped under the plan/preparation and development themes. When Table 7 was examined, it was determined that pre-service teachers stated "finding an idea" (f=19), disability groups of students with SEN (f=18) and material supply (f=11) for the difficulties they face in the planning/preparation process. In the material development process, they stated that they mostly had difficulty in the design (f=28)

dimension, and also they had difficulties in cost ($f=3$) and time ($f=2$). The opinion of participant No. 12 on this question:

“While preparing the material, I first paid attention to the fact that it would be suitable for the student group. Therefore, the design was important. However, I made a few attempts, and they were not at the level that disabled students could understand. I also had difficulty in finding suitable materials for these students.”

The sixth and final sub-problem of the study is "How are pre-service teachers made to feel by the exhibition of the materials prepared?". The findings on this sub-problem are explained in Table 8.

Table 8: Findings on pre-service teachers' opinions on the exhibition process

Theme	Opinion	f
General feeling	Happiness/Peace	36
	Excitement	7
	Sensitivity	4
Self-esteem	Being liked/Proud	27
	The sense of being useful	23
	Self-efficacy	22
	Self-confidence	21

Pre-service teachers' opinions on this sub-problem were grouped under the general feeling and self-esteem themes. When Table 8 was examined, it was observed that pre-service teachers stated that the exhibition of materials they designed for students with SEN mostly made them feel happy/peaceful ($f=36$). Furthermore, they had the feelings that would increase self-esteem such as being liked/proud ($f=27$), the sense of being useful ($f=23$), self-efficacy ($f=22$) and self-confidence ($f=21$). This finding can be interpreted that the meeting of the materials prepared by them with the target group positively affected the pre-service teachers' feelings, improved their self-confidence and self-efficacy with regard to their profession, which may positively affect their attitudes towards their profession. The opinion of participant No. 1 on this question:

“Self-confidence developed towards me in terms of seeing what people can achieve when they want. The fact that our material was appreciated and found successful made me feel greater happiness. The fact that I suppressed my excitement and made presentations in front of others made me proud and increased my self-confidence. I really felt like an educator.”

Conclusion and Discussion

This study was carried out to reveal the effect of the process of designing teaching material for students with SEN on the attitudes of pre-service social studies teachers towards the education of students with SEN, and the opinions of pre-service teachers about the experiences they have in the process of preparing and presenting materials for students with SEN. The results obtained in the study were supported by similar studies in the literature.

First, the effect of the process of designing material for students with SEN on the attitudes of pre-service teachers towards the education of students with SEN was investigated in the study. As a result of the study, a significant difference was found between the pre-attitudes and post-attitudes of pre-service teachers towards the education of students with SEN in favor of post-attitudes. Furthermore, as a result of the effect size analysis performed, it was determined that the material designing process had a high effect on the change in pre-service teachers' post-attitude. When the effect size is considered, it is thought that this attitude change was due to the fact that pre-service teachers were informed about students with SEN in the material designing

process, and the processes of getting closely acquainted with their physical and cognitive characteristics and interacting with these students. In this context, similar studies that would support this result of the study were found in the literature. Shade and Stewart (2001) carried out a study to determine the attitudes of general and special education pre-service teachers towards inclusion. In the study, pre-service teachers in both groups were informed about inclusion, and it was ensured that they communicated with students with mild disabilities by including them in a part of the course. As a result of the study, it was determined that there was a positive change in the attitudes of pre-service teachers in both groups towards inclusion. In the study in which Orel, Zerey, and Töret (2004) examined the attitudes of primary school pre-service teachers receiving inclusive education and the attitudes of those not receiving inclusive education, they determined that the attitudes of pre-service teachers receiving courses related to inclusion towards inclusion and inclusive students were more positive compared to those not receiving inclusive education. Walker (2012) investigated the attitudes of general education teachers toward inclusion. As a result of the study, it was found that there was a high correlation between the attitudes of the teachers and their informing about inclusion. In the study carried out by Taylor and Ringlaben (2012) on the development of pre-service teachers' attitudes towards inclusive education, they applied the curriculum they developed for inclusion to pre-service teachers. They reported that pre-service teachers' attitudes towards inclusion changed positively during the application process. As a result of the study in which Alptekin and Vural-Batik (2013) investigated the effect of a special education course given to special education pre-service teachers on the attitudes of pre-service teachers towards students with disabilities, the researchers determined that the special education course applied had a positive effect on the attitudes of pre-service teachers towards special education students. Sadioğlu, Batu, and Bilgin (2012) conducted interviews with 23 primary school teachers to determine the opinions of primary school teachers about the inclusion of students with special needs. As a result of the study, it was concluded that primary school teachers were not adequately informed about inclusion, moreover, teachers did not get support from other teachers and principals, which led to a negative attitude towards inclusion among teachers.

It was determined that the process of designing materials for students with SEN positively affected pre-service teachers' perspectives on students with SEN from cognitive and affective aspects. In this context, it was concluded that pre-service teachers had more knowledge about the physical characteristics of students with SEN and their learning disabilities in the material designing process from the cognitive aspect, and that pre-service teachers developed more powerful empathy with SEN students, their sensitivity towards them developed, and their prejudices were broken in this process from the affective aspect. When this result is evaluated together with the result of the previous sub-problem, it can be interpreted that the information obtained by pre-service teachers for student with SEN in the material designing process developed their cognitive awareness, which was indirectly reflected on their affective perspective on them. Gözün and Yıkılmış (2004) carried out an experimental study to determine the attitudes of pre-service teachers towards inclusion. The pre-service teachers in the experimental group were informed about inclusion, allowed to prepare activities, and it was ensured that they interacted with inclusive students. No intervention program was applied to pre-service teachers in the control group. As a result of the study, a significant difference was found in the attitudes of pre-service teachers in the experimental group towards inclusion compared to the control group. In the study carried out by Leatherman and Niemeyer (2005) examined preservice and inservice teachers' attitudes toward inclusive practices. As a result of the study, it was found that teachers' attitudes toward inclusion appear to be influenced by suitable preservice training. Burke and Sutherland (2005) have reached similar result in their study that was to determine relationship between preservice and in service teachers' attitudes towards inclusion. Swain, Nordness and Leader-Janssen (2012) carried out to investigate the change in preservice teachers' attitudes about inclusive practices in special education course. After practices with SEN students, it was revealed that preservice teachers' attitudes toward inclusion was affected positively.

In the study, pre-service teachers' sources of motivation were examined in the process of preparing material for students with SEN. It was determined that the biggest sources of motivation of pre-service teachers in this process were special education students, making a contribution to the education of these students by designing a training material, and the instructor and friends. No finding which is directly related to this result was found in the literature. However, the studies carried out have revealed that there is a positive relationship between motivation, attitude, and success (Akbaba, 2006; Erdem and Gözüküçük, 2013; Li and Pan, 2009). In this respect, this result obtained can be interpreted that the high motivation of pre-service teachers for these students could be the predictor of a positive attitude development towards their profession in the future, inclusive students who may be in their class, and the education of these students. Acat and Yenilmez (2004) applied a scale to pre-service teachers to determine the motivation levels of the faculty of education students for the teaching profession. As a result of the study, the average of the item "willingness of the group with whom I receive education" on the scale was found to be high among the answers given by pre-service teachers. This result supports the result that pre-service teachers showed their friends as one of the sources of motivation. Furthermore, Ulusoy (2002) stated that the biological and psychological needs of students are among the intrinsic factors that motivate teachers. In this study, pre-service teachers stated that they were motivated by supporting the education of students with disabilities by designing materials for them. Pre-service teachers met the needs of these students in this way. In this respect, the statement of Ulusoy supports this result obtained.

It was revealed that pre-service teachers stated that receiving support from a school with special education classes during the material preparation process for students with SEN was helpful for them with respect to preparation, guidance, and testing and that this support positively affected the process. It was determined that school support had a positive effect on pre-service teachers with respect to recognizing the characteristics of students with SEN, observation, developing ideas, and preliminary application. Kircaali-İftar (1998) stated that all school staff, especially school administration, should support the primary school teacher giving inclusive education for successful inclusive education. In this respect, the result obtained once again revealed the importance of support provided to those who give special education. Villa, Thousand, Nevin ve Liston (2005) have interviewed with teachers to determine of their view on successful inclusion education in middle and secondary schools. Teachers have stated that administrative support and collaboration were too important for successful inclusion. In the study carried out by Gök and Erbaş (2011) to determine the opinions of pre-school teachers about inclusion, they stated that teachers had serious problems related to inclusive education and needed support to be provided by experts to overcome these problems. As a result of the study carried out by Akay and Gürgür (2018) to determine the mentorship service provided to special education specialists working in the inclusive environment, it was concluded that teachers working in the special education environment should regularly receive support education for their professional development. In this respect, the fact that the support provided to pre-service teachers in the study process makes a positive contribution to their professional development has been supported by the literature.

In the study, it was found out that pre-service teachers experienced the greatest difficulties in the planning and designing stages during the process of designing materials for students with SEN. Pre-service teachers stated that they experienced great difficulties especially with respect to the disability status of students with SEN and coming up with ideas about the teaching material that could be used according to the disability status of these students. In the study carried out by Gök and Erbaş (2011) to determine the opinions of pre-school teachers about inclusion, the researchers reported that pre-school teachers stated that one of the biggest troubles related to inclusive students was planning activity according to the disability status. In the study carried out by Öztürk and Zayımoğlu-Öztürk (2015) to determine pre-service history teachers' opinions about the materials prepared by them, the researchers determined that pre-service teachers mostly had

troubles in determining what the material would be (idea) and in the development stage during the process of designing materials.

In the process of presenting the materials prepared by pre-service teachers, it was found out that they had the feelings of proud/being liked, happiness, being useful, and high self-confidence. In the action study carried out by Bayat, Zayimoğlu-Öztürk and Öztürk (2016) to improve the academic achievements of pre-service teachers within the scope of the Teaching Technologies and Material Design course, they revealed that the process of exhibiting the prepared materials positively affected pre-service teachers' achievements, attitudes towards the profession, and feelings of competence. Kolburan Geçer (2010) aimed to determine the opinions of pre-service technical teachers about the material preparation process and the materials they prepared in this process within the scope of the Teaching Technologies and Material Design course. As a result of the study, it was concluded that the experiences gained by pre-service teachers within the scope of this course contributed to their professional, individual and social development. In the study carried out by Deneme (2018) to determine pre-service teachers' opinions about the Teaching Technologies and Material Design course and its applications, it was concluded that pre-service teachers stated that it was not enough to present the materials they prepared with great efforts only to their teachers and that it would be more beneficial to present them with a exhibition. In this study, it was concluded that pre-service teachers had high self-confidence and self-efficacy in the process of designing and presenting materials for students with SEN. Taylor and Ringlaben (2012) also stated that working with special education needs students improved the self-efficacy and self-confidence of pre-service teachers.

Genişletilmiş ÖZET

Özel Eğitim Öğrencileri İçin Materyal Tasarlayan Sosyal Bilgiler Öğretmen Adaylarının Deneyimleri: “Eğitim Engel Tanımaz” Sergisinden

Problem Durumu ve Çalışmanın Amacı

Fiziksel, zihinsel, duygusal, sosyal ve dilsel bakımdan öğrenme güçlüğü çeken öğrencilerin günlük hayata adapte olmalarını ve var olan potansiyellerini en üst düzeyde kullanmalarını sağlamak amacı ile yürütülen eğitim programlarına özel eğitim denmektedir. Bu kapsamda eğitim alan öğrenciler ise özel eğitim öğrencisi şeklinde ifade edilmektedir. Engel grubu ve düzeyine göre bu öğrencilerden bir kısmı özel eğitim kurumlarında veya rehabilitasyon merkezlerinde, bir kısmı ise normal okullarda kaynaştırma öğrencisi olarak eğitimlerine devam etmektedirler. Dolayısı ile kaynaştırma eğitimi kapsamında branş veya sınıf öğretmenleri de sınıflarında bu öğrencilere eğitim vermektedirler. Bu öğrencilere daha kaliteli eğitim verebilmek için sınıf ve branş öğretmenlerinin gerekli beceri ve donanımına sahip olması gerekmektedir. Kaynaştırma öğrencisi olarak normal öğrenciler ile eğitim alan öğrencilerin bu duruma daha kolay uyum sağlayabilmeleri için öğretmenlerin kaynaştırma öğrencilerine ilişkin tutumları ve onların eğitimlerine olan destekleri önemlidir. Yapılan çalışmalar öğretmen ve öğretmen adaylarının kaynaştırma eğitime ilişkin genelde olumsuz tutuma sahip olduklarını, ancak kaynaştırma eğitimi ile ilgili bilgilendirme yapıldığı veya engelli öğrencilerle iletişim kurulduğu takdirde öğretmen ve öğretmen adaylarının tutumlarının olumlu yönde değiştiğini ortaya çıkarmıştır (Shade ve Stewart, 2001; Sucuoğlu, 2004; Orel, Zerey, ve Töret 2004; Şahbaz ve Kalay, 2010; Taylor ve Ringlaben, 2012).

2016-2017 eğitim öğretim yılı I. Dönem verilerine göre örgün eğitime devam eden kaynaştırma öğrencisi sayısı 219.728'dir (Aile ve Sosyal Politikalar Bakanlığı, 2017). Bu sayı oldukça yüksek bir sayıdır ve geçmiş dönem istatistiklerine bakıldığında bu sayı her yıl artmaktadır. Dolayısı ile öğretmen adaylarının gelecekteki meslek yaşamlarında kaynaştırma öğrencileri ile karşılaşma olasılığı her geçen yıl artmaktadır. Bu açıdan hizmet öncesi dönemde öğretmen adaylarının bu öğrenciler ile ilgili edinecekleri her bilginin, onlar ile kuracakları temasın veya onlara yönelik yapacakları uygulamaların mesleki gelişimleri açısından faydalı olacağı düşünülmektedir.

Belirtilen durumdan hareketle hazırlanmış olan bu çalışmanın iki amacı bulunmaktadır. Çalışmanın ilk amacı ÖEÖ için öğretim materyali tasarlama sürecinin sosyal bilgiler öğretmen adaylarının ÖEÖ'nin eğitilmesine ilişkin tutumlarına etkisini belirlemektir. İkinci amaç ise öğretmen adaylarının ÖEÖ için materyal hazırlama ve sergileme sürecinde yaşadıkları deneyimlere ilişkin görüşlerini ortaya çıkarmaktır. Çalışmanın amaçlarına ulaşması için aşağıdaki alt problemler belirlenmiştir.

1-ÖEÖ için materyal tasarlayan öğretmen adaylarının ÖEÖ'nin eğitilmesine ilişkin ön tutumları ve son tutumları arasında anlamlı fark var mıdır?

2-ÖEÖ için materyal tasarlama süreci, öğretmen adaylarının bu öğrencilere bakış açılarını nasıl etkilemiştir?

3- ÖEÖ için materyal tasarlama sürecinde öğretmen adaylarının motivasyon kaynakları nelerdir?

4- ÖEÖ için materyal hazırlama, uygulama ve sergileme aşamasında bir okuldan destek almanın öğretmen adaylarının materyal geliştirme sürecine etkisi nedir?

5-ÖEÖ için materyal tasarlama sürecinde öğretmen adaylarının karşılaştıkları güçlükler nelerdir?

6-Hazırlanan materyallerin sergilenmesi sürecinde öğretmen adaylarının neler hissettiklerine ilişkin görüşleri nelerdir?

Yöntem

Çalışma nicel ve nitel yöntemlerin bir arada kullanıldığı karma araştırma yöntemi kullanılarak yürütülmüş ve karma araştırma desenlerinden iç içe geçmiş desen kullanılmıştır. Nicel yöntemlerden tek gruplu öntest-sontest deneysel desen kullanılmıştır. Bu amaçla 2017-2018 akademik yılında Sosyal Bilgiler Öğretmenliği Programında eğitimlerine devam etmekte olan 52 öğretmen adayına engelli bireylerin eğitimlerine ilişkin tutumlarını belirlemek amacı ile öntutum testi uygulanmıştır. Daha sonra bu öğretmen adaylarına özel eğitim öğrencileri için farklı materyaller tasarlanmıştır. Yapılan bu müdahale programından sonra, aynı ölçek sontutum testi olarak uygulanmıştır. Çalışmada nicel desen yanında nitel araştırma yöntemlerinden görüşme kullanılmıştır.

Araştırmanın çalışma grubunu 2017-2018 akademik yılında Adıyaman Üniversitesi Eğitim Fakültesi Sosyal Bilgiler Öğretmenliği programı 3. sınıfta eğitimlerine devam eden 52 öğretmen adayı oluşturmaktadır. Çalışmanın nicel verilerini elde etmek için “Engelli Bireylerin Eğitilmesine İlişkin Tutum Ölçeği” (Kösterelioğlu, 2013) kullanılmıştır. Nitel verileri toplamak için araştırmacı tarafından hazırlanan ve yarı yapılandırılmış beş açık uçlu sorunun yer aldığı görüşme formu kullanılmıştır. Çalışmanın nicel verileri normal dağılmadığı için nonparametrik testlerden ilişkili ölçümler için Wilcoxon İşaretli Sıralar Testi kullanılarak analiz yapılmıştır. Nitel veriler ise içerik analizi kullanılarak analiz edilmiştir.

Sonuç ve Tartışma

Araştırma sonucunda öğretmen adaylarının ÖEÖ'nin eğitilmesine ilişkin öntutum ve sontutuları arasında sontutuları lehine anlamlı fark bulunmuştur. Ayrıca yapılan etki değeri analizi sonucu materyal tasarlama sürecinin öğretmen adaylarının sontutularının değişmesi üzerinde yüksek etkiye ($r=0.84$) sahip olduğu belirlenmiştir. Literatürde bu sonucu destekler nitelikte çalışmalara rastlanmıştır (Shade ve Stewart, 2001; Orel, Zerey ve Töret, 2004; Taylor ve Ringlaben, 2012; Alptekin ve Vural-Batık, 2013; Sadioğlu, Batu ve Bilgin, 2012). Ayrıca çalışmada ÖEÖ için materyal tasarlama sürecinin öğretmen adaylarının ÖEÖ'ne yönelik bakış açılarını bilişsel ve duyuşsal açıdan olumlu etkilediği tespit edilmiştir. Bu kapsamda materyal tasarlama sürecinde öğretmen adaylarının bilişsel açıdan ÖEÖ'nin bedensel özellikleri ve öğrenme güçlükleri ile ilgili daha fazla bilgi sahibi oldukları, duyuşsal açıdan ise bu süreçte ÖEÖ ile daha güçlü empati kurabildikleri, onlara yönelik duyarlıklarının geliştiği, önyargılarının kırıldığı sonuçlarına ulaşılmıştır.

Bu süreçte öğretmen adaylarının en büyük motivasyon kaynaklarının özel eğitim öğrencileri ve bu öğrenciler için bir eğitim materyali tasarlayarak onların eğitimine katkı sağlamak, ders sorumlusu ve arkadaşlar olduğu belirlenmiştir. Acat ve Yenilmez (2004), eğitim fakültesi öğrencilerinin öğretmenlik mesleğine ilişkin motivasyon düzeylerini belirlemek amacı ile yürüttükleri çalışmada benzer bir sonuca ulaşmışlardır.

ÖEÖ için materyal hazırlama sürecinde öğretmen adaylarının özel eğitim sınıflarının bulunduğu bir okuldan destek almalarının onlara hazırlık, yönlendirme ve deneme konusunda yardımcı olduğu ve bu desteğin süreci olumlu etkilediği şeklinde görüş bildirdikleri ortaya çıkmıştır. Çalışmada elde edilen bir başka sonuç ÖEÖ için materyal tasarlama sürecinde öğretmen adaylarının en büyük zorlukları plan ve tasarım aşamasında yaşadıkları sonucudur. Öğretmen adayları özellikle ÖEÖ'nin engel durumları ve bu öğrencilerin engel durumlarına uygun kullanılacak öğretim materyali ile ilgili fikir bulma konusunda büyük zorluk çektiklerini ifade etmişlerdir. Gök ve Erbaş (2011) ve Öztürk ve Zayımoğlu-Öztürk (2015) yapmış oldukları çalışmalarda bu sonucu destekler nitelikte sonuçlara ulaşmışlardır.

Öğretmen adaylarının hazırladıkları materyalleri sergileme sürecinde; gurur/beğenilme, mutluluk, işe yarama ve yüksek özgüven duygularını hissettikleri ortaya çıkmıştır. Yapılan literatür taraması sonucu bu çalışmanın sonucuna benzer sonuçların yer aldığı çalışmalar tespit edilmiştir (Bayat, Zayımoğlu-Öztürk ve Öztürk, 2016; Kolburan Geçer, 2010; Deneme, 2018; Taylor ve Ringlaben, 2012).

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