The Effects of Social Gender Equality-Oriented Educational Activities and Materials on Gender Stereotypes of Children

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ABSTRACT

It is frequently stated that stereotypes and cultural values about gender roles are effective in children's adoption of sexual identities, shaping of their emotions, thoughts, and behaviors in accordance with their sexual identities and the construction of their gender roles. By creating learning environments where roles that will satisfy the needs of modern life developed independently from gender stereotypes, preschool teachers can help structuring perceptions of children on gender equality. In this context, it is considered that preschool education program should be enriched with educational materials and activities to improve a point of view related to gender equality in early childhood period. In this research, it is aimed to investigate the effects of educational activities and materials for gender equality on the gender stereotypes of children in preschool period. The research was conducted as an experimental field study with experimental and control groups. The study group consists of 84 children aged 5 in an independent kindergarten in İzmir. It was found that there was a significant difference between the posttest scores of the experimental and control groups in terms of tasks/jobs, professions, toys, games, hobbies and emotions after the implementation of the education program supporting gender equality.

INTRODUCTION

The concept of gender distinguishes being feminine or masculine from biological sex and describes this concept as a cultural variable by emphasizing the cultural aspect of being a woman or a man (Burge and Filer, 2008, p.425). Researches claim that experiences, feedbacks, and models presented by environment are effective in gender differentiation of children (Newman and Newman, 1991; Vasta, Haith and Miller, 1992).

The belief that boys and girls should behave differently entails expectations for children to assume different roles (Shaffer and Kipp, 2010). Gender stereotypes are defined as attitudes and behaviors that society expects from women and men (Franzoi, 1996). Stereotypes pressures people to adhere to these expectations. Therefore, social expectations limiting the activities men and women can do have an important role in the formation of sex role identification of an individual (Gündüz Kalan, 2010). The acquisition of gender roles starts at early ages (Shaffer and Kipp, 2010, p.526). Family is the primary structure determinant in gender-specific behaviors and in the development of gender roles. Parents make an effort for their children to adopt traditional gender roles. These approaches cause children to learn this distinction earlier and parents convey these beliefs and anticipations by modeling, pressure, or teaching in socialization process (Aina and Cameron, 2011; Dökmen, 2009, p.133; Wolter, Braun and Hannover, 2015). Some traditional stereotypical judgments may cause inequalities in the formation of social gender perception. For this reason, it is important for parents to be role models for their children from birth, to raise individuals sensitive to gender equality (Güder and Yıldız, 2016). Researchers suggest that adults should act consciously and be cautious when modeling against gender roles, beliefs and behaviors of children (Wolter et al., 2015). The results of the research reveal that the diversity of differences regarding sex is less compared to the similarities (EURYDICE, 2010, s.11). Moreover, most of these differences are completely social and cultural, rather than biological. (Dökmen, 2009, p. 144). Another social structure effective in the reshaping of gender is

the education environment (Bigler, Hayes and Hamilton, 2013; http://etcep.meb.gov.tr/; Wolter et al., 2015). According to Kaluger and Kaluger (1984), children learn the true meaning of gender roles and differences when they start going to school. Especially, early childhood is said to be the period when the stereotypes are structured quickly. Being specific to this period, children are observed to frequently exaggerate certain behaviors related to gender and make a serious effort to implement the gender roles (Craig and Baucum, 2002, p.283; cited in Feldman, 2003, p. 261; Newman and Newman, 1991, p.290). Children's beliefs based on the stereotypes are strengthened in this period, and children tend to be firmly attached to these beliefs (Berk, 2013;Banse et al., 2010). Children try to shape their social behaviors with cultural structure, by being affected by what they are told or by reflecting what they observe because they are not mature enough to conceptualize them on their own, while acquiring or shaping sex-specific behaviors (Newman and Newman, 1991, p.290). During this period in which the gender schema develops, children improve their cognitive capacities by creating rules that determine what is the most appropriate for women and men (Papalia, Olds and Feldman, 2004; Vasta et al 1992). At an early stage as two or three years of age, as soon as one realizes what his or her gender is, children are given stereotypical behaviors by their own cultural experiences. During this process, they realize their identity by attributing a meaning to themselves and others (Aina and Cameron, 2011; Banse et al., 2010). It is therefore expected from pre-school teachers to encourage children to develop their thoughts on gender differences and establish gender identity.

Researchers think that teachers' perceptions of being a girl or a boy are a factor in ensuring gender equality in school. Teachers responsible for the development and education of the children in this period need to take into consideration the effects on children's lives (EURYDICE, 2010, p.11; Wolter et al., 2015). Pre-school teachers should provide an atmosphere where girls and boys are equal for the sake of changing gender stereotypes, allow children to play with all kinds of toys regardless of their sexes, and support them for adapting to their gender identity (Senemoğlu, 1994; Wolter et at., 2015). It is stated that teachers have the opportunity to encourage critical thinking and questioning gender stereotypes during the activities. Sometimes, however, the experiences and beliefs from teachers' past experiences can prevent teachers from questioning the sexist approaches in their educational settings. That may mean that teachers have internalized traditional gender roles. Therefore, it is thought that teachers' understanding of their gender roles will contribute to fixing or breaking the gender stereotypes in schools (EURYDICE, 2010, p. 89). Because, the attitudes and views of teachers as role models are influential in shaping the attitudes and behaviors of children regarding gender roles (Choflá, 2016, p.16-17; UNICEF, 2003; Wolter et al., 2015). Therefore, teachers are advised to internalize the concept of social gender equality, and turn stereotypes into positive expressions. With this objective in mind, teachers are advised to observe themselves for this kind of judgments, check whether they consciously or unconsciously reward certain kinds of behaviour and make an effort to create a learning environment in which children are treated (see Wolter et al., 2015; Choflá, 2016, p.16-17). Regardless of the biological gender, sexual identity, and gender expression of children, for children's sexual identity development, teachers need to provide children with opportunities that will improve the education program by taking their sex-based biases into consideration (Choflá, 2016). Hence, the progress regarding gender equality within the society can be achieved through innovative activities independent of gender stereotypes, which are created by teachers to improve children's perception of equality. They are advised not to reinforce children's stereotypical behaviors, to provide opportunities for them to experience new things without gender stereotypes (babysitting boy, girl repairing a car) or present them with related visuals (non-stereotypical tasks carried out by men and women) (Trawick-Swith, 2013). Teachers are advised to actively avoid expressions such as "girls to one side, boys to other side" since this kind of expressions evokes gender discrimination (Berk, 2013a, s. 394). In this context, educators should know how to develop materials for different teaching methods and techniques that are appropriate for the level of development of the children (Dağlıoğlu, 2014, p. 48). Teachers have some misunderstandings regarding genders and state that they don't have the necessary knowledge for this matter even though they are interested in how they can create reliable educational settings in which they can improve gender identity in preschool classes (Choflá, 2016). Teachers have too little training that is needed to deal with acquired prejudices and gender stereotypes (Bigler, Hayes and Hamilton, 2013). Therefore, it is underlined that teachers and candidate teachers should receive training on gender issues (EURYDICE, 2010, p.89). Recent studies in the field show that educators generally have conservative and traditional stereotypical ideas and expectations in their views on gender. Many teachers cannot transfer the relevant contributions to the

learning settings since they do not know how to ensure gender equality in schools. Therefore, it is argued that a basic module on gender equality should be implemented (from pre-school to higher education) in the teacher education curriculum (European Commission, 2009c, p.81).

Especially, it is thought that preschool teachers need trainings that will improve and increase their skills regarding how they can design samples of educational materials contrary to traditional stereotypes, and various activities that can ensure gender equality. Also, it is expected that schools should try to support the creation of educational environments that will reduce gender discrimination to minimum. Textbooks and materials used in educational settings might affect gender stereotypes positively or negatively (EURYDICE, 2010, p.11). In UNICEF's report "Investigation of Education Regarding Social Gender (2003)", it is recommended that educational materials in Turkey should be screened with an approach that emphasizes gender sensitivity. This field in preschool education is required to be supported not only by various educational activities but also with the examples of original educational materials that ensure gender equality. In this context, the purpose of this research is to examine the effects of educational activities and educational play materials prepared in the scope of gender equality on gender stereotypes of children aged 60-72 months. The question "What is the effect of gender equality-oriented educational activities and educational materials on gender stereotypes of children?" is the primary problem that this study focuses on.

METHOD

Research Model

This study was conducted as an experimental field study with experimental and control groups. In the experimental design, relevant measures are applied to both the experimental and the control groups before and after the education program is implemented, and a statistical difference is expected between the two groups (Büyüköztürk, 2009). In this study, daily education routine was enriched with activities and educational materials related to gender equality that was implemented in experimental classrooms and not in the control group classrooms. Pre-tests were applied to the children in both groups before the education program and the posttests were applied after the education program.

Participant Group

In this study, the participant group has been formed with an appropriate sampling method based on voluntarism. The study was conducted in a state funded preschools located in Karşıyaka district within the borders of Izmir. A total of 84 children (42 in experimental group, 42 in control group) of 5-years-old were the participant group of this study. There were 23 girls and 19 boys in the experimental group, while there were 19 girls and 23 boys in the control group. The study included the children without any developmental delay or difficulty and whose parents approved their participation in the study.

Data Collection Tools

Social Gender Stereotype Measurement Tool

The " Social Gender Stereotype Measurement Tool" was developed by Şıvgın (2017) with the aim of determining the gender stereotypes of children. The measurement tool consists of 43 items in four categories related to gender stereotypes: tasks (looking after children, paying for food, paying bills, dishwashing, driving, cleaning, ironing, repairs, greeting guests), professions (police, nurse, soldier, cook, chauffeur, secretary, pilot, carpenter, hostess, engineer, dancer, firefighter, cleaning officer, vendor, teacher, waiter), toys (plush toys, cars, trucks, ropes, bicycles, household toys, repair tools, robots, dolls, toy soldiers) and games (hopscotch, jumping rope, swing on swings, marbles, boxing, basketball, chess). A question like "Which person/persons can do dishwashing?" is asked, then the child is expected to choose one of the cards on which there are pictures of "Woman" "Man" or "Woman and Man."

In this measurement tool, the elements in each category have three options for answers. These answers are "Woman", "Man" and "Woman and Man" for the categories "tasks/jobs" and "professions"; "Girl", Boy" and "Girl and Boy" for toys and games categories. While the answers "Man", "Woman" or "Girl", "Boy" reflect the gender stereotypes of children; "Man and Woman" or "Girl and Boy" does not indicate gender stereotypes. Each item in the measurement tool can be evaluated separately. In addition to this, total scores

can be obtained by giving "0" points to "Woman" and "Man" answers and "1" to "Woman and Man" answers for each item. The low scores indicate gender stereotypes while high scores reflect androgenic character (Şıvgın, 2017).

Test retest reliability was calculated as .82 for all items. KR-20 reliability coefficient was calculated in addition to the test re-test reliability of the measurement tool, whose range was validated in the scope of literature and expert opinions. According to the pre-test scores, the KR-20 reliability coefficient calculated as .73, and according to the posttest scores it is 98 (Şıvgın, 2017).

Gender Stereotypes Child Interview Form

The interview form prepared by the researchers aims to determine gender stereotypes for children's feelings, hobbies, colors, and attributes. While the draft questions and pictures on the form are being designed, first of all, the researches that were conducted in four dimensions consisting of feelings, hobbies, colors and attributes were examined. Moreover, the related views based on gender stereotypes were evaluated in the literature. Prepared draft questions and pictures were presented to two experts in the field of clinical psychology and pre-school education, and necessary changes were made accordingly. The interview form prepared by the researchers consists of four parts.

In this direction, in the first part of the form, there are 14 different visuals with 14 "Woman", 14 "Man" and 14 "Woman and Man" together with 14 images that contain hobbies (riding, knitting, playing football, making cakes, camping, growing flowers, parachuting, jewelry, fishing, climbing) which are thought to be related to the gender stereotypes. Seven of them are related to stereotypes about women, while the other seven are related to men. There are also questions on the cards to be asked to children. Questions such as "What do you see in this picture?", "What can I do with these things or for what purpose can these tools be used?", "Which person/persons can do it or which person/persons would like to do it?" are asked, then the child is expected to choose one of the cards on which there are pictures of "Woman" "Man" or "Woman and Man."

In the second part of the form, there are 11 sample events related to emotions. A question like "Kemal and Zeynep were sitting at home. Suddenly, a lightning stroke. Which person/persons do you think was/were scared in this case?" is asked, then the child is expected to choose one of the cards on which there are pictures of "Woman" "Man" or "Woman and Man." There are 11 emotions that are thought to be related to gender stereotypes. These feelings are fear, crying, excitement, courage, sociability, impatience, anger, anxiety, happiness, feeling successful and feeling unsuccessful.

In the third part of the form, there are 7 different color cards on which the same colored different objects are displayed. These 7 colors (red, orange, blue, purple, green, pink and black which were determined to be stereotypical in the result of Buldurlu, Elibol and Kılıç's 2006 "Material Use in Preschool Children's Toys and Color Preferences of 4-6 Year Olds" study) were chosen for the interview form. On each color card, there are five different objects of that color. Questions such as, "What do you see in this picture?", "which person or persons do you think would like to use things in this color?" are asked, then the children are expected to choose one of the cards on which there are pictures of "Woman" "Man" or "Woman and Man".

In the fourth part of the form, there are 12 questions on self-attribution based on "Gender Stereotype Measurement Scale" which was developed by Williams and Bennett (1975) in order to evaluate the stereotypes of children regarding sexual characteristics, and which was put into its final form by Best (1977) and adapted to Turkish by Şirvanlı-Özen (1992). These qualities (quarrelsome, weak, adventurous, irregular, chattering, playful, gentle, harsh, complaining, confident, affectionate, dependent) are thought to be in an interaction with gender stereotypes. The question "When some children hold a kitten in their laps, they pay attention not to hurt it, which one/ones of these children is/are gentle?" is asked, then the children are expected to choose one of the cards on which there are pictures of "Woman" "Man" or "Woman and Man."

The form was applied through pictures and with face-to-face interviews with children. The interviews lasted about 20 minutes. Pilot studies where interview questions were asked were conducted with 10 children.

Educational Activities and Educational Materials Created for Social Gender Equality

When the literature is examined, it is noticed that children hold some social gender stereotypical views such as color, profession, hobby, arts, sports, toy-game and feelings (Buldurlu et al., 2006; Çiftçi, 2011; Şıvgın, 2015; Şirvanlı, 1992). The fact that children are in an approach towards gender discrimination will lead them to see their social environment and themselves in a biased way. It is stated that this situation will become an obstructive element for their learning opportunities and interests (Goble, Martin and Hanish, 2012). In this study, the prepared education plan that is thought it would improve the stereotypes positively was implemented 2 days a week, 5 weeks in total. A total of 36 activities such as Drama, Mathematics, Science, Art etc. highlighting gender equality with materials, appropriate for children's development levels, were prepared by consulting four experts from the field. In the preparation of these activities, the Ministry of National Education's Pre-School Education Program (2013) has been taken into consideration. In the implementation of the activities, attention was paid for children to learn through active experience. It is also planned to organize related classroom arrangements and to prepare the centers according to the contents of the daily education flow. Additionally, teachers were informed about the importance of the children's acquisition of social gender equality perception and requested to attend in the classroom during all activities so that they reflect social gender equality as they learn in the education programme. The educators displayed non-stereotypical behaviors during the process. For example, male educators preferred pink and purple outfits, while female educators preferred black and blue outfits. Male educators were role models in stereotypical activities attributed to women like housekeeping while female educators participated in stereotypical activities attributed to men such as repairs.

At the beginning of the day and during the evaluation times, a debate atmosphere was created in the classroom to ask questions that would enable children to question current stereotypes and gain critical thinking skills. At this stage, the researchers discussed with the children on the reasons why a certain job or hobby can't be done by women or men. The researchers tried to reveal their premises by asking why boys can't play with dolls and girls, if the children have any stereotypical thoughts, so that the children were given the opportunity to think over the process again. In this process, the children were expected to discover on their own that gender is not a basic factor of these premises.

Meanwhile, original and creative educational game materials which were produced with the consultancy of researches and with the sophomore students from Ege University Education Faculty Preschool Education Department during the "Gender" theme within the scope of "Creativity and Development" class in 2017-2018 Fall semester were presented to children during their daily education flow. The learning centers in the classrooms were enriched with different kinds of educational game materials (such as "Housework sharing", "What should I become when I grow up", and "All toys are for me") and all materials were presented for children to play during whole day.

Existing stereotypes were dealt with in 8 different dimensions (professions, hobbies, social roles, color, dress, game-toy, emotions, and attributions), and each dimension is studied in a way to be associated with each other in every educational flow.

In the profession dimension; the researchers conducted more activities on some professions such as driver, pilot, policeman, scientist, dancer, fashion designer etc. in order to develop gender equality idea in children's minds. In this training process, it is expected that children could comprehend that there is no gender discrimination in any profession. In the activities conducted in the dimension of hobbies, it is emphasized that children comprehend that men and women can have the same or similar hobbies. Several hobbies such as climbing, sawing, parachuting etc. were discussed with children by using some pictures and activities. Some other drama activities were also conducted in this context. Thus, it is supported that children comprehend that being a man or a woman is not a restriction to have a hobby. In terms of roles at house: the concepts such as washing the dishes, cleaning, cooking, ironing, doing the laundry, repairing, driving, paying the bills, babysitting etc. are discussed with children by reading books, showing pictures, conducting activities, and role playing. In this process, the importance of work sharing and helping each other is stressed. In terms of game-toy choices: the concepts such as baby, car, stuffed toy, lorry, repair tools, play house toys etc. are discussed and explained to the children that they can play with all kinds of toys since gender is not a determinant factor to be able to play with some toys. In this context, it is aimed to increase

awareness that children respect the individual differences. In the color choices dimension; the researchers conducted more activities on some colors such as pink, blue, purple, orange and red etc. related to gender. The researchers tried to develop a flexible thought in children that every individual has the right to prefer the color he/she wants. In terms of emotions and attributions: the feelings such as being happy, sad, patient, brave, kind, excited, angry, worried etc. are discussed with children and told them that these feelings are not gender specific. Thus, women and men might emotionally have the same feelings in the face of a situation/event. During this training process, several anecdotes, books, puppet shows, drama activities and game/toy materials involving these feelings were used as educational sources.

Data Collection Process

Before starting to do research, the necessary legal permissions were obtained for the participant preschool to take part in the study. Afterwards, school managers and teachers were shortly informed about the purpose and scope of the work, explanations were made on the training to be applied to the experimental group, and parental consent forms were sent to the children and their parents. In this respect, studies were conducted with children who voluntarily participated.

In the pre-test phase of the study, the scale and form were applied by using Social Gender Stereotype Measurement Tool and all of the participant children were interviewed individually by using Gender Stereotypes Child Interview Form in relatively silent places of the school. Each interview took around 20-30 minutes. During the interviews, the data were recorded by researchers. The interviews were conducted by researchers without any guidance or interpretation.

After collecting the data in the pre-test phase which lasted for about 3 weeks, the children in the experimental group were given training by using the gender related educational materials with daily training flows for a total of 5 weeks 2 days a week.

It was ensured that the current preschool programme related to children's daily routines were not interrupted and the materials, educational tools and activities were integrated into this education programme.

After the education program was implemented, posttests were completed for both groups as the final stage. In this process, all of the processes applied during the pre-test phase of the study were carried out in the same way.

Analysis of the Data

In the study, the data obtained from the experiment and control groups using Social Gender Stereotype Measuring Tool and Gender Stereotypes Child Interview Form, were transferred to the SPSS 15.0 package program and the data set was created.

In this study, the Kolmogorov-Smirnov Normality Test was conducted with the aim of examining the normality assumption of data on Social Gender Stereotypes Measurement Tool and Gender Stereotypes Child Interview Form, and all the data showed normal distribution. The groups were compared according to the normality assumption, and "Independent Sample t-test" was used. The significance level for all analyses was set at 0.05.

FINDINGS

Before the education program was implemented, pre-test scores between the two groups were analyzed. It could be said that the experimental and control group's total average scores were at the same level in terms of the Social Gender Stereotypes Measurement Tool and Gender Stereotypes Children Interview Form. Moreover, the experimental and control groups were at the same level in terms of sub-dimensions of the subject form before the education program was implemented in each measurement tool.

Social Gender Stereotypes Measurement Tool

In the direction of main goal of the study, Social Gender Stereotype Measurement scores were analyzed in terms of the effects of social gender equality-oriented educational activities and materials in preschool over gender stereotypes of children. As seen in Table 1, there were significant differences in sub

dimensions (tasks, professions, toys, games) and total score based on the posttest scores of Independent Sample t-test between the two groups.

Table 1. Social Gender Stereotype Measuring Tool Posttest Scores of the Experimental and Control groups

	Group	N	Average	S	df	T	p
Tasks	Experiment	42	,70	,29	69,6	11,5	,00
	Control	42	,10	,18			
Professions	Experiment	42	,77	,29	70,7	10,5	,00
	Control	42	,20	,19			
Toys	Experiment	42	,61	,34	76,0	5,8	,00
	Control	42	,23	,25			
Games	Experiment	42	,82	,23	82	7,8	,00
	Control	42	,40	,25			
Total	Experiment	42	,72	,25	73,6	10,5	,00
	Control	42	,23	,17			

When Table 1 is examined, after the implementation of the education plans and training materials prepared for the gender equality of the children, it was observed that there was a significant differences between the total test score average of the experimental group ($\overline{X}_{Experimental}$ = .72) that the children got from Social Gender Stereotype Measurement tool and the total test scores of the control group who did not receive any intervention ($\overline{X}_{Control}$ = .23). This difference was found to be statistically significant for the favor of experimental group (p = .00 <α = 0.05).

Additionally, when the average scores of all sub-dimensions of the Social Gender Stereotypes Measurement Tool was taken into consideration, the score of each sub-dimension in experimental group was found to be higher than that of control group. This difference was found to be statistically significant for the favor of experimental group (p = .00 <α = 0.05). In other words, the education program with enriched activities and educational materials has an important effect on the development of gender equality perspectives of children regarding tasks, professions, games and toys (See Table 1).

Gender Stereotypes Children Interview Form

The effects of social gender equality-oriented educational activities and materials on children's preferences related to tasks, professions, toys, and games were examined in this study (See Table 1). In addition to this evaluation, the effectiveness of these materials and activities on children's gender stereotypes for feelings, hobbies, colors, and attributions were also evaluated by using Gender Stereotypes Children Interview Form in order to evaluate the effects of these materials in a broader frame (See Table 2).

Table 2. Unrelated t-Test Results of Posttest Scores of the Experimental and Control Groups according to Gender Stereotypes Children Interview Form

	Group	N	Average	S	df	T	p
Hobbies	Experiment	42	.61	.30	66.7	6.4	.00
	Control	42	.27	.18			
Emotions	Experiment	42	.69	.34	82	5.0	.00
	Control	42	.31	.36			
Colors	Experiment	42	.60	.31	82	1.6	.12
	Control	42	.49	.30			
Attributions	Experiment	42	.49	.34	69.4	1.9	.06
	Control	42	.38	.22			

There were significant differences in two sub dimensions, hobbies and emotions, based on the posttest average scores of Independent Sample t-test between the two groups. This difference was found to be statistically significant for the favor of experimental group. When the averages for the colors and attributions sub-dimensions were examined, it was found that there was not any significant difference between the posttest averages of the children in the experimental group and that of the children in the control group. This result shows that these activities and materials have a significant impact on the development of children's perspectives on emotion and hobbies but do not have a significant effect on children's preferences of colors and attributions (See Table 2).

RESULT, DISCUSSION, AND SUGGESTIONS

In the findings provided by this research, it was observed that social gender stereotypes of children changed positively in case of developing educational toys and materials which would support the sexual development processes of children and ensure them to have experiences different from stereotypical role models and enriching the educational programme with several activities about gender equality and social gender roles. Children begin to understand the notion of gender and the structures linked to social gender around the age of two and start to act accordingly and make connections related to these stereotypes (Feldman, 2003; Shaffer and Kipp, 2010). In this period, boys and girls try to distinguish between various objects, activities, games, professions and even personality characteristics by classifying them as appropriate and inappropriate for their genders, during the socializing process (Bee and Boyd, 2009, s. 582). The rapid structuring of stereotypes continues in early childhood, the tendency of children to strictly attach to them is strengthened (Berk, 2013).

In today's world where we come across gender inequalities frequently, the most efficient and permanent way to turn these stereotypes into positive and equalitarian expressions is the education system (Bayramoğlu, 2015). In this context, it is the responsibility of teachers to raise children who do not have stereotypical views which limit the behavior of both women and men (Dökmen, 2009, p.38, 106). Especially, it is important for pre-school teachers to question stereotypes, to prepare learning environments convenient to their development level, to produce supporting, educational materials and plan activities for children to grow up under an equalitarian gender policy.

When the results obtained by the "Social Gender Stereotype Measurement Tool" were evaluated, it was deducted that the experimental children were in a statistically significant development in terms of social gender stereotypes in the sub-dimensions of tasks, professions, toys and games through the educational materials and the gender related educational activities that were implemented in preschool education programme, which reinforced social equality. In tasks sub-dimension, the experimental group children attribute tasks such as washing dishes, cleaning and ironing, repairing, driving and paying the bills highly both to men and women, whereas the control group children attribute the mentioned tasks more to a single gender according to the social gender stereotype. To change this understanding in children, it is important for teachers to assign duties and responsibilities to every child without discriminating between girls and boys, in the education environment.

This research also confirms that educational materials and activities increased the experimental group children's awareness (contrary to the control group children's) that individuals from both genders could practice the mentioned professions in the professions (related to the professions such as policeman, chef, soldier, and stewardess etc. which were thought to be gender stereotype) sub-dimension. It is determined that the experimental group children developed a more equalitarian point of view towards the stereotypical professions. Teachers may organize activities about the professions which are considered as stereotypical; for instance, inviting a female pilot to the class or organizing an expedition to the fire department and getting the children to interact with the female and male firefighters.

When the game and toys sub-dimensions were evaluated, it was observed that there was a decrease in the stereotypes of the experimental group children in toy choices (car, baby etc.) and game choices (skipping rope, box etc.), compared to the control group children. For teachers to ensure the children to develop an equalitarian sexual attitude, calling the families to cooperation regarding equalitarian sexual role concept and toy choices, informing them and preparing activities on this topic in the class may contribute (Çiftçi, 2011).

In the literature, findings of another study where the effects of gender role education activities on the social gender stereotypes of 60-72 months old children taking pre-school education are evaluated, coincides with the findings of this research (Şıvgın, 2015). In the pre-test phase of the study, the researcher concluded that the children respond stereotypically to the women and men tasks, professions, toys, and games. After the gender roles education activities, when the findings are evaluated, in the posttests, it is observed that the stereotypical answers of the experimental group decreased, but the stereotypical answers of the control group remained the same. Another study which reveals the importance of equalitarian learning environments was conducted by Güder and Yıldız (2016). In this research, instead of providing gender specific toys, when the children were provided all kinds of toys and came together frequently with their peers from the opposite gender, it was observed that they developed less stereotypical viewpoints towards social gender. Generally speaking, when the results of the mentioned researches are analyzed, if awareness activities related to social gender equality are done with pre-school children and the daily education flow is enriched, a positive change in the stereotypical perception of the children is possible. When the studies in the literature are examined closely, it is concluded that the education minimizes the current stereotypes of the children if the social gender equality is stressed on during early ages (Çiftçi, 2011; Güder and Yıldız, 2016; Şıvgın, 2015).

Some different precautions such as professional guidance, gender sensitive education, and curriculum change etc. were taken in educational process in European countries. In this context, it is underlined that, in an environment which is independent of traditional gender expectations and provided equality of opportunity to everybody, the education system has to offer opportunities through which they can develop their own identities and discover their strengths and interests (EURYDICE, 2010, p. 113). For children to develop various skills, they should be allowed to have experiences in mixed groups instead of playing alone, in social environments which support them to be interested in various activities that are feminine, masculine or genderless, without the gender stereotype (Goble, Martin and Hanish, 2012). When literature is studied, the researches on social gender are mainly implemented as related to games, toys, professions and tasks on social gender (Güder and Yıldız, 2016; Kahraman and Başal, 2011; Şıvgın, 2015; Ünlü, 2012). In this research, it is also questioned whether educational activities and materials affect children's gender stereotypes related to hobbies, color preferences, emotions, and attributions and tried to handle the view towards gender equality through a broader perspective. Because, when the literature is

examined, several researches showed that social gender stereotypes were suppressive elements on children's hobby and color preferences, emotions and attributions (Brechet, 2012; Jadva, Hines and Golombok, 2010). It is observed that this process begins when the sex of the baby is learned before it is born. Families showing different behavior depending on the baby's gender, using different adjectives and presenting different colored clothes, rooms etc., providing with different facilities cause changes in children's hobbies and color preferences, their understanding of themselves, emotions and attributions (Aksoy and Baran, 2017; Çelik, 2008; see Papalia et al., 2004; Shaffer and Kipp, 2010; Vasta et al., 1992).

In this research, by way of this Gender Stereotypes Child Interview Form, the effect of gender equality education activities and educational materials is evaluated on eleven emotions, fourteen hobbies, seven colors and twelve attributions that are considered to be social gender stereotypes.

When the data is analyzed, an increase in the social gender equality score averages of the experimental group children in the sub-dimensions of emotions and hobbies was observed. It is shown that the experimental group's average score of "woman and man" responses to questions related to emotions such as fear, hate etc. which are considered to be stereotypical, is higher than the control group's average score. In the literature, it is frequently mentioned that certain stereotypes related to emotions exist in social gender perceptions of families, children and educators and it is normal for these stereotypes to affect children (Brechet, 2012; Birnbaum and Croll, 1984; Çelik, 2008; Todor, 2010). In their research, Birnbaum and Chemelski (1984) provided the children with some classroom settings which involve hypothetical emotional situations consisting of gender stereotypes. They found that the children associate the emotion of fear especially with girls while they attribute anger and happiness to girls or boys depending on the situation. On the other hand, in the research that Brechet (2012) implemented by way of drawings, it was found that the children attribute the emotion of anger to boys more than to girls. Today, it is stated that physical aggression is a stereotype associated more frequently to boys and high levels of social skills to girls (Heyman and Legare, 2004). Emotions such as anger, fury, and aggression are ordinary emotions for people regardless of their gender. It is crucial to explain to the children that it is ordinary to experience all emotions regardless of gender and to teach them how to express these emotions appropriately through behavior (Domitrovich, Greenberg, Kusche, and Cortes, 1999). Also, in the literature, it is suggested that the children should be offered multidirectional options that will improve their multidimensional skills. The children should be encouraged to take part in various games, sports, and hobbies without being effected by social gender stereotypes. Creating social environments that are independent of stereotypes and activate the instincts which will allow boys to play in an art activity and a girl to build a structure with blocks lead children to have different learning opportunities (Goble et al., 2012). Indeed, with the contribution of the activities and materials used in this research, an increase was observed in the experimental group children's interests in the hobbies. In the research, it is observed that children's gender stereotypes concerning hobbies might be improved with a rich learning environment and supportive approach and that their points of interest can be diversified without the limitation of gender. In order to turn these stereotypes into positive expressions, teachers should open courses focused on the hobbies that are believed to be stereotypical in schools, show by examples that there are original hobbies for both boys and girls, and guide the children according to their interest to the extracurricular activities by informing parents.

When the colors and attributions which are the last sub-dimensions of the research were examined, no significant difference was found between the experimental group and the control group children. However, it is frequently seen that there is a tendency to perceive women as individuals who are afraid, feeble, weak, and inadequate and crying, whereas men are perceived as the ones who are strong, brave and not crying (Çelik, 2008; Goodey, 1997; Güder and Yıldız, 2016). Early childhood is defined as the period where the permanent learning of children is gradually reinforced and the personality characteristics that family and teachers attribute to the child turn into a part of his/her character after some time by being internalized by the child. At this point, Paplia, Olds, and Feldman, (2004) underline that we cannot decide whether a child is fast, strong, clever or sociable by looking at his/her gender. Therefore, on the topic of personality characteristics which should be dealt with in the early childhood period, more profound and intense activities need to be planned.

To sum up, in this research, the variable of gender is examined by involving various multi-dimensional activities (boxing, dancing, ballet etc.), areas of interest (toys, roles and tasks at home), personal and social attitudes (personality characteristics, social behavior (aggression, addiction etc.), social relations

(friends) and ways of expression. As a result, offering exemplary educational materials and activities enabled children to improve awareness on social gender equality. However, because the findings belong to a small sample group, there could not be any generalization. This is the limitation of this research. It is suggested that the findings should be discussed within the frame of larger sample groups in different researches.

In future researches, discussing and sharing of original materials and activities as much as possible shall increase the awareness and knowledge levels of the teachers. These materials and activities will decrease attitudes, beliefs and perceptions based on social gender stereotypes, and improve the equalitarian approach of children along with the learning processes in the classroom.

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