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Cetin Toraman & Fatmanur Ozen

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# An Investigation of the Effectiveness of the Gender Equality Course with A Specific Focus on Faculties of Education

**Çetin TORAMAN**[1]

Çanakkale Onsekiz Mart University, Çanakkale, Turkey

**Fatmanur ÖZEN**[2]

Giresun University, Giresun, Turkey

## Abstract

In 2015, the Turkish Council of Higher Education declared that the gender equality course would be compulsory or elective in the education programs of universities. This decision is considered to play an important role in ensuring gender equality. The present study was conducted in a faculty of education in Turkey which includes gender equality in its education program as a compulsory-elective course. The aim was to investigate the opinions of the students of the faculty of education on the effects of the course on their views on gender. The comparison of the data collected through the Gender Equality Scale before and after the course shows that the participants were, unexpectedly, more likely to develop the opinion that men are superior to women after the course. Whereas the course did not affect participants' approaches to the opinion that women are dependent on men. Whether teachers' gender perspectives or views on gender equality affect classroom practices; it is envisaged that gender perception, which is shaped by most patriarchal and conservative patterns, will be transferred to future generations through education and will adversely affect the demand for equality in the future. After the findings of this study were discussed with similar research results and then in the application of gender equality in higher education institutions, it was tried to give an idea about the issues to be considered.

**Keywords:** Gender, gender equality, gender course, faculty of education, students of faculty of education

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[1] Dr., Faculty of Medicine, Medical Education Department, Canakkale Onsekiz Mart University, Canakkale, Turkey cetintoraman@comu.edu.tr , ORCID: 0000-0001-5319-0731

[2] Dr., Faculty of Education, Special Education Department, Giresun University, Giresun, Turkey, ORCID: 0000-0002-3232-7484

Correspondence: fozen2010@gmail.com; fatma.nur.ozen@giresun.edu.tr

## Introduction

Many of the articles on gender begin by revealing the differences between gender and sex (Aydın, Bekar, Goren & Sungur, 2016; Budak & Kucuksen, 2018; Gozutok, Toraman & Acar-Erdol, 2017; Kıran & Avcı, 2018; Ozen, 2018; Peter & Mikayla, 2018; Vatandas, 2007…). Gender, which differs from one's biological characteristics (i.e., sex), is "socially oriented" and is "the social position that one associates with being a woman or a man" and it is the "personal characteristics" that are the reflection of this position (Diamond, 2002). Thus, "gender is a dimension of social organization that shapes one's communication with others and their thoughts about themselves" (Macionis, 2012, p. 328). It is "a cultural process that juxtaposes the notions of womanhood and manhood and imposes the roles assigned to men and women" (Heywood, 2014, p. 241). These social identities constructed by society, as prejudiced as possible (for example it does not include LGBT people) affect values, image, behaviours, belief, academic achievement, the use of intelligence and memory, creativity, choice of profession, financial gain, perceptions of self-efficacy and success, and even stress level (Altunbay, 2015; Amogne, 2015; Chevalier, 2007; Chyung, 2007; Dayioglu & Turut-Asik, 2007; Hare-Mustin & Marecek, 1988; Hindal, Reid & Whitehead, 2013; Horner, 1978, cited in Schunk, 2011; Gilbert, 2009; Okere & Ndeke, 2012; Pomerantz, Altermatt & Saxon, 2002).

Gender varies from society to society, from culture to culture. Gender may differ even in crisis periods of societies (Nonviolent Education and Research Association, 2019). Because cultural elements come to the fore even in meeting the most basic needs (e.g., "hunger is hunger, but what is food is determined by culture and food is obtained depending on culture") "every society has a gender system" (Rubin, 2016, p.180). Indeed, feminist evidence shows that gender has been built by society for decades (Briggs, 2018); that it has "a fluid structure" (Nystrom, 2007, as cited in Kreitz-Sandberg, 2013), "reproduced throughout identity creation" and cannot be considered "as a *natural* identity within the basic identity categories" (Butler, 1990, p. xxix). Obviously, this construction, fluid structure, and this unnatural identity production are problematic for many societies. Most of the researches on gender focus on prejudice against women, neglect, discrimination, inequality of opportunity, financial gain differences, psychological and physical exploitation, role equality, gender equality, gender freedom, justice, and these researches demand the acceptance, even the appreciation of gender differences, and claims for equity and positive discrimination and more equitable and fair world for men and women (usually for women!) (Demir, 1997; Donovan, 2001; Heywood, 2014; Hogg & Vaughan, 2017; Reiter, 2012; Unterhalter, 2005).

Even though anthropologists have not reached a common conclusion about how male and female roles and behaviours are produced in societies and how they become repetitive, they argue that male domination and male hierarchy among nonhuman primates are genetically determined as a result of natural selection and result as an adaptation to "original environments". These characteristics were

differentiated between settled human communities and hunter-gatherer peoples, and "depend on behaviours *learned* rather than hereditary traits.". "While masculine power existed among settled peoples engaged in agriculture, it is uncertain whether it existed in hunter societies" (Gough, 2012, pp. 61, 76). Engels (2018) argues that the systematic exploitation of women by men is caused by the control of the surplus of production, state, social stratification, and property by men. With the emergence of the state structure, men who were exempted from the child-rearing were more able to undertake economic and political roles; (some) men (especially the men of the ruling class) had power over other men and women due to their monopoly on weapons. Thus, it can be considered that gender and its inequalities originate from *learned* (or *taught*) behaviours, and influenced by the lifestyles of societies and the policies of states.

**Faculties of Education and Gender**

Today, gender-related problems need to be evaluated and examined together with women, men, children and especially family policies of governments and other social problems and social categories such as international policies, city, class, social networks, immigration, ethnicity, sexuality and generation (Jarvis, Kantor & Cloke, 2012; Lykke, 2010). According to Kreitz-Sandberg (2013), the participation of all actors is essential for the establishment of a sustainable structure in gender equality.

Considering the importance of learning in the acquisition of role behaviors for men and women, it can be predicted that there is a strong link between gender and education. Many theories have attempted to define learning so far. One of these theories is Bandura's Social Cognitive Theory. The theory asserts that "people acquire knowledge, rules, abilities, strategies, beliefs, and approaches by observing others" (Schunk, 2011, p. 78). According to Vygotsky, learning takes place under the guidance of the teachers, depending on the interest of the learner in the social environment (Korkmaz, 2013, pp. 250-251). According to Thorndike, there is a close relationship between knowledge and teaching practices, and individuals repeat their behaviours with satisfactory results (learning) (Bozkurt, 2016). At this point, Bandura states that individuals can comprehend the suitability and consequences of their behaviours and are aware of the consequences of their behaviours (Gurel, 2014). Thus, it may be more proper to say that the behaviours acquired by individuals are not imitations of the behaviours observed by them in their social circles or the behaviours provided by their guides, but they are interpreted individually. Considering the effects on learning, teachers, schools and educational systems produce a structured environment (learning area) and learning situations (knowledge, behaviour, and learning outcomes) for learners. Although learning situations are designed for the continuity of countries' cultures and ideologies, and even though it is known that the knowledge conveyed to new generations through education cannot be isolated from the beliefs and preferences of the people who produce it (Cetin, 2001), today, this contradiction is tried to be solved by increasing the qualities of

teachers. In 2011, the United Nations Educational, Scientific and Cultural Organization (UNESCO) stressed that teachers are key to ensuring gender equality. To ensure gender equality in the world, especially in developing countries, UNESCO considers that gender equality should be included in the education programs of countries and that these programs should be disseminated through teacher education. UNESCO even considers gender equality as the organization's medium-term strategy for 2014-2021 and recognizes it as a global priority. The organization believes that gender-related practices of teacher training institutions are an integral part of their duties (UNESCO, 2015).

According to UNESCO, it is necessary to train teachers who will maintain equality to ensure gender equality in teacher training institutions. To this end, it is essential to understand gender, establish gender-sensitive policies, plans, corporate culture, and environment, provide support services, teaching programs and materials for both employees and prospective teachers, conduct gender studies, and create budgets to finance them. When evaluating their performance, teacher-training institutions should demonstrate their gender-based practices through concrete evidence to be obtained from self-evaluation and self-monitoring (UNESCO, 2015).

In 2015, the Council of Higher Education (YOK) in Turkey organized a workshop on Universities Sensitive to Gender Equality, attended by representatives from 70 universities. During the workshop, the issues collected under four themes were discussed to ensure gender equality in the academic field: integration of gender equality courses into the education programs as a compulsory subject, providing academic and administrative staff with awareness of gender equality, making visible the activities of universities related to gender and prevention of violence, sexual harassment, abuse, and mobbing in the university environment. Following the workshop, a Women's Studies Unit was established in YOK affiliated academy (YOK, 2015). In the following year, YOK shared with the universities a text (Higher Education Institutions Gender Equality Attitude Certificate) demonstrating its attitude towards gender equality and justice in the academy. The attitude text required that gender equality courses be included as compulsory-elective courses in the education programs of universities (YOK Academy Women's Studies Unit, 2016).

The present study aims to determine whether the gender equality course has achieved the desired effects on the prospective teachers enrolled in a faculty of education that includes this course as a compulsory-elective course. Within this framework, answers to the following questions have been sought:

1. What are the opinions of the students of the faculty of education about gender equality?
2. To what extend their opinions on gender equality have changed after the course?

## Method

The present study is a descriptive study. Within the scope of the study, "Gender Equality Scale" (developed by Gozutok, Toraman &Acar-Erdol, 2017) was applied before and after the course in a faculty of education where gender equality courses are offered as a compulsory-elective course; thus, the results with regard to test-retest technique were evaluated. Repeated measures are "frequently used in the social sciences to determine changes in the knowledge level of subjects or to evaluate the impact of a training program over time" (Akgul & Cevik, 2003, p. 239). In this study, it was aimed to determine the opinions of the students of a faculty of education about gender equality and to compare their opinions before and after taking the course of gender equality (Buyukozturk et al., 2014).

### Research Group

The present study aims to determine to what extent the gender equality course affects the opinions of the students of a faculty of education. For this reason, the research group should first include a faculty and students of this faculty. In this respect, the research group can be evaluated within the scope of criterion sampling (Yildirim & Simsek, 2011). The data were obtained from the students who volunteered to participate in the research in two stages: both before the course and after the course. Thus, the research group included an easy-to-reach group. In this respect, the research group can be evaluated within the scope of purposeful sampling (Yildirim & Simsek, 2011; Senol, 2012). The characteristics of the students in the research group are presented in Table 1.

**Table 1.** Distribution of participants in the research group

| | | Frequency (f) | Percentage (%) |
|---|---|---|---|
| Gender | Female | 319 | 73,7 |
| | Male | 114 | 26,3 |
| | Total | 433 | 100 |
| Departments | Computer and Instructional Technologies (CIT) | 28 | 6,5 |
| | Science Teaching | 72 | 16,6 |
| | Pre-school Teaching | 122 | 28,2 |
| | Psychological counselling and Guidance (PCG) | 58 | 13,4 |
| | Classroom Teaching | 86 | 19,9 |
| | Turkish Language Teaching | 53 | 12,2 |
| | Music-Art Teaching | 14 | 3,2 |
| | Total | 433 | 100 |
| The geographical regions where the students' families reside | Marmara | 23 | 5,3 |
| | Aegean | 22 | 5,1 |
| | Mediterranean | 53 | 12,2 |
| | Central Anatolia | 62 | 14,3 |
| | Black Sea | 166 | 38,3 |
| | Eastern Anatolia | 54 | 12,5 |
| | Southeastern Anatolia | 53 | 12,2 |
| | Total | 433 | 100 |

A total of 433 students of faculty of education, most of whom were female (73.7%), participated in the study. The families of the majority of the participants live in the cities of the Black Sea Region (38.3%).

**Application**

University administration adopted gender equality as a compulsory-elective course in order to provide university students with the awareness of gender equality. This course is offered at the first grade level in all faculties and departments of this university. The content of the course and the resources to be used were determined by the instructors with the coordination of the Center for Women's Studies at the university. The content of the program that would take one semester includes the following subjects: "the introduction of the concept of gender, sociology of gender, gender and family, gender and religion, gender and language, gender and media, gender and body images, gender, work life and labour, feminist movements and social change". A training program was organized by the experts at the university (who were from the sociology and other related departments) for the teaching staff who volunteered to teach the gender equality course. The teaching staffs were academic personnel at the university. In the traing program experts only used lectures to train instructors. At the end of the two weeks training program, the presentations used during the training program were shared with the instructors and additional resources were recommended for the course.

**Data Collection Tool**

To collect data, the Gender Equality Scale (GES) developed by Gozutok, Toraman, and Acar-Erdol (2017) was used. The scale was developed to determine the opinions of high school students about gender equality. The scale has two factors: the first factor shows the opinion that men are superior to women (OMSW), and the second factor shows the opinion that women are dependent on men (OWDM). This five-point Likert type scale has eight items in the first factor and five items in the second factor. The Cronbach Alpha reliability coefficients for the sub-dimensions of the scale without any inverse item were calculated as .88 and .70. The GES confirmatory factor analysis fit indexes were: $X^2$ / sd = 1.83, CFI = 0.99, AGFI = 0.92, RMSEA = 0.056, SRMR = 0.04. These values are acceptable according to literature.

The GES was developed for high school students. Since the scale was to be applied to the students of a faculty of education in this study, it was necessary to determine whether the scale could be used for the university students. To this end, a pre-application was made with the participation of 723 students of a faculty of education in the academic year of 2016-2017. The pre-application group included 723 students from Ankara, Giresun, and Nevsehir Haci Bektas Universities Education Faculties. These universities are from the Anatolian part of Turkey. Of these students, 523 were female, and 200 were male. Also, of these students, 99 were enrolled at the science teaching department, 65 at the primary school maths teaching, 21 at the English teaching, 34 at the pre-school

teaching, 54 at the special education for the handicapped department, 100 at the psychological counselling and guidance, 196 at the classroom teaching, 92 at the social sciences teaching, 41 at the Turkish language teaching, and 21 at the teaching of mentally handicapped. 182 students were at the 1st grade, 138 at the 2nd grade, 166 at the 3rd grade, and 237 at the 4th grade. When selecting the students to be included in the pre-application, volunteering and easy-data-collection were considered; therefore, the pre-application group was determined by the purposeful sampling method.

Confirmatory factor analysis was used to determine whether the two-factor structure of GES was validated for the students of the faculty of education. The CFA fit indices obtained as a result of the analysis made through the IBM-AMOS program are shown in Table 2, and the diagram is shown in Figure 1.

**Table 2.** Confirmatory factor analysis fit indices

| Fit Index | Value |
|---|---|
| Chi-Square ($(X^{2nd}$) | 223.825 |
| Degrees of Freedom (df) | 113 |
| $X^2$/sd | 1.98 |
| The Goodness of Fit Index (GFI) | 0.946 |
| Adjusted Goodness of Fit Index (AGFI) | 0.919 |
| Root Mean Square Error of Approximation (RMSEA) | 0.067 |
| Root Mean Square Residual (RMR) | 0.062 |

According to Joreskog and Sorbom (1993), Kline (2005), Sumer (2000), Ozdamar (2013), and Simsek (2007), the values in Table 2 are within acceptable limits.

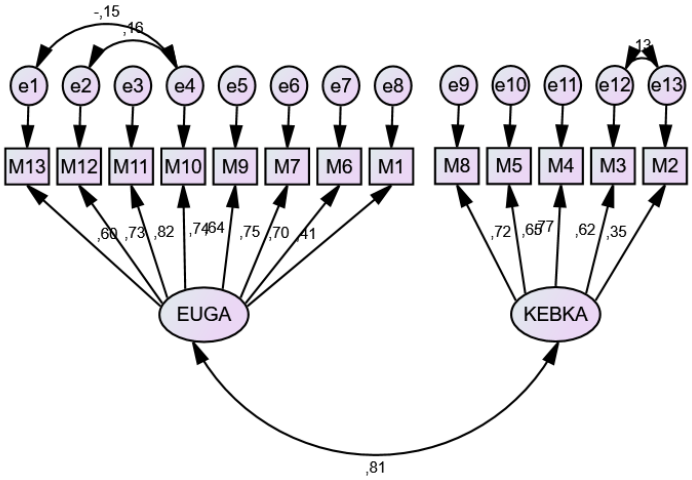


**Figure1.** Factor structure of GES in university students

According to the data in Table 2 and the diagram in Figure 1, GES provided valid and reliable data on gender equality opinions of the students of the faculty of education.

### Data Analysis

In line with the first sub-goal of the study, descriptive statistics of students' responses to GESs before and after taking the course of gender equality were examined.

In line with the second sub-goal of the study, the difference between the total points obtained by the students before and after the course was determined. Kolmogorov-Smirnov test showed that the difference scores were not normally distributed ($p < .05$). To compare the difference scores, the nonparametric *equivalent* Wilcoxon Test was applied instead of the parametric T-Test which was planned to be used (Buyukozturk, 2013; Ozdamar, 2013).

In line with the third sub-goal of the study, it was necessary to determine to what extent the explanatory variables (sex, departments, educational background of parents, whether family members read newspapers at home regularly, whether family members go to theatres, whether family members watch movies, whether family members read, whether parents take the opinions of their children and the geographical region where the family resides) predict the opinions of the students on gender equality. This requires the use of regression analysis. The explanatory variables in the research are all categorical. For categorical variables to be put into the model as explanatory variables in linear regression analysis, these variables need to be taken as dummy variables. Addition of ten different explanatory variables to the model as dummy variables prevents correct analysis (Ozdamar, 2013). Therefore, it was decided to perform a logistic regression analysis for the analysis with independent variables. For the logistic regression analysis, the output variable (students' opinions on gender equality after the course) was clustered as the opinion that men and women are equal/ the opinion that men are superior to women, and the opinion that women are independent of men/the opinion that women are dependent on men.

## Findings

Descriptive statistics of the scores that the students obtained from the scale before and after taking the gender equality course, i.e. their opinions on gender quality, can be seen in Table 3.

**Table 3.** Descriptive statistics of GES

| **Descriptive Statistics** | **Variables** | | | |
|---|---|---|---|---|
| | The opinion that men are superior to women (Pre-test) | The opinion that women are dependent on men (Post-test) | The opinion that men are superior to women (Post-test) | The opinion that women are dependent on men (Post-test) |
| N | 433 | 433 | 433 | 433 |
| Arithmetic mean | 14,32 | 12,63 | 16,06 | 12,46 |
| Median | 12,00 | 12,00 | 15,00 | 12,00 |
| Mod | 8 | 13 | 8 | 11 |
| Standard deviation | 5,964 | 4,057 | 7,082 | 4,379 |
| Lowest Score | 8 | 5 | 8 | 5 |
| Highest Score | 37 | 25 | 40 | 25 |

Gozutok, Toraman, and Acar-Erdol (2017) stated that GES provides information in two sub-dimensions. The highest score that can be obtained from the first dimension, namely the opinion that men are superior to women, is 40 and the higher the score is, the more likely the participant is to be of this opinion. On the other hand, the highest score that can be obtained from the second dimension, namely the opinion that women are dependent on men, is 25 and the higher the score is, the more likely the participant is to be of this opinion as well.

In this study, the mean score obtained in the pre-tests for the opinion that men are superior to women was 14.32 and the most frequently repeated score was eight. This finding shows that the extreme views with regards to men's superiority to women increased the average score whereas most of the participants had moderate opinions. This result can be interpreted that the students were not of the opinion that men are superior to women, according to the scores from the pre-test. In the post-test scores, the mean score was 16.06 and the most frequently repeated score was eight. That is, the result is similar to the result of the pre-test. However, it that should be noted with regards to the findings is that the mean score of the opinion that men are superior to women increased after the course. This result shows that the course did not decrease the average as expected.

The results of the analysis show that the mean score of the pre-test with regards to the opinion that women are dependent on men was 12.63 and the most frequently repeated score was 13. Considering that the highest score that can be taken from this dimension is 25. This finding shows that the students have a moderate level of the opinion that women are dependent on men. In the post-test scores, the mean score was 12.46 and the most frequently repeated score was 11. This result shows that there is no significant change in the mean scores obtained from the scale before and after the gender equality course. To put it in another way, the course of gender equality did not decrease the average.

The GES scores of the students before and after the gender equality course were compared. The results of the comparison are shown in Table 4.

**Table 4.** Comparison of the GES scores before and after the gender equality course

| Scale | Pre-test-Post-test | n | Mean Rank | Rank Sum | z | p |
|---|---|---|---|---|---|---|
| The opinion that men are superior to women | Negative Rank | 193 | 162,69 | 31399,50 | -4,053 | 0,000 |
| | Positive Rank | 211 | 238,91 | 50410,50 | | |
| The opinion that women are dependent on men | Negative Rank | 217 | 186,79 | 40533,50 | -0,902 | 0,367 |
| | Positive Rank | 175 | 208,54 | 36494,50 | | |

According to the results of the Wilcoxon analysis shown in Table 4, there is a significant increase ($p < .05$) in favour of the scores of the post-test in the dimension of the opinion that men are superior to women. On the other hand, there is no change in the dimension of the opinion that women

are dependent on men (p>.05). While the gender equality course was expected to promote the idea that men and women are equal, the application of the course increased the opinion that men are superior to women.

To determine whether variables such as sex, departments, educational background of parents, whether family members read newspapers at home regularly, whether family members go to theatres, whether family members watch movies, whether family members read, whether parents take the opinions of their children and the geographical region where the family resides predicted the participants' opinions on gender equality, "Logistic Regression Analysis" was applied to the data obtained.

The participants were asked to respond to the variables in the data file in the following way: sex: female-male; departments: CIT, science teaching, pre-school teaching, PCG, classroom teaching, Turkish language teaching, music-art teaching; educational background of parents: primary school, secondary school, high school, university and above; whether family members read newspapers, go to theatres, watch movies: Yes-no; whether family members read: in the past month, in the past year, I do not remember, never; whether parents take the opinions of their children: Yes-no; the geographical region where the family resides: Marmara, Aegean, Mediterranean, Central Anatolia, Black Sea, Eastern Anatolia, and Southeastern Anatolia.

The binary logistic regression analysis determined the reference groups for the opinion that "men are not superior to women", and the opinion that "women are not dependent on men" as follows: sex, male; departments, "CIT"; educational background of parents, "primary school"; whether family members read newspapers, go to theatres, watch movies regularly, "yes"; whether family members read, "in the past month"; whether parents take the opinions of their children, "yes"; the geographical region where the family resides, "Marmara". The results of the analysis with the "Enter" method are summarized in Tables 5, 6, 7, 8, 9 and 10.

**Table 5.** Blog "0" Prediction–The first classification obtained as a result of the LRA

| | **Observation** | **Prediction** | | |
|---|---|---|---|---|
| | | **Men are not superior to women** | **Men are superior to women** | **Percentage** |
| OMSW | Men are not superior to women | 0 | 213 | |
| | Men are superior to women | 0 | 220 | |
| | Total Percentage | | | 50,8 |
| | | **Women are not dependent on men** | **Women are dependent on men** | **Percentage** |
| OWDM | Women are not dependent on men | 0 | 191 | |
| | Women are dependent on men | 0 | 242 | |
| | Total Percentage | | | 55,9 |

According to Table 5, before the blog "0" predictor variables were imported into the model for the sub-dimension of the opinion that men are superior to women. The groups formed for the sub-dimension of the opinion that men are superior to women were predicted at 51%. In other words, the results of classification indicate that without the predictor variables, correct classification percentage of the opinion that men are superior to women for all the students in the research group was 51%. Before the blog "0" predictor variables were imported into the model for the sub-dimension of the opinion that women are dependent on men the groups formed for the sub-dimension of the opinion that women are dependent on men were predicted at 56%. In other words, the results of classification indicate that without the predictor variables, correct classification percentage of the opinion that women are dependent on men for all the students in the research group was 51%.

**Table 6.** Blog "1" prediction

| | **Observation** | **Prediction** | | |
|---|---|---|---|---|
| | | **Men are not superior to women** | **Men are superior to women** | **Percentage** |
| OMSW | Men are not superior to women | 134 | 79 | |
| | Men are superior to women | 73 | 147 | |
| | Total Percentage | | | 64,9 |
| | | **Women are not dependent on men** | **Women are dependent on men** | **Percentage** |
| OWDM | Women are not dependent on men | 104 | 87 | |
| | Women are dependent on men | 58 | 184 | |
| | Total Percentage | | | 66,5 |

According to Table 6, when the blog "1" predictor variables were imported into the model for the sub-dimension of the opinion that men are superior to women. The groups formed for the sub-dimension of the opinion that men are superior to women were predicted at 65%. When the blog "1" predictor variables were imported into the model for the sub-dimension of the opinion that women are dependent on men, the groups formed for the sub-dimension of the opinion that women are dependent on men were predicted at 67%.

**Table 7.** The omnibus test for the correlations in the model and summary of the model

| | | | **$X^2$** | **sd** | **p** | **Cox and Snell $R^2$** | **Nagelkerke $R^2$** |
|---|---|---|---|---|---|---|---|
| First (OMSW) | Step | Step | 64,950 | 26 | 0,000 | 0,139 | 0,186 |
| | | Block | 64,950 | 26 | 0,000 | | |
| | | Model | 64,950 | 26 | 0,000 | | |
| First (OWDM) | Step | Step | 76,409 | 26 | 0,000 | 0,162 | 0,217 |
| | | Block | 76,409 | 26 | 0,000 | | |
| | | Model | 76,409 | 26 | 0,000 | | |

When Table 7 is examined, it can be inferred from the positive and sufficiently high chi-square value ( $X^2$=64,950, p<05). The chi-square statistic is significant in the model. This allows the

rejection of the hypothesis ($H_0$) that there is no difference between the initial model with the constant term (blog "0") and the final model (blog "1") in which the explanatory variables enter the analysis. This means that the relationship between the predicted variable and the explanatory variables is supported. From the Cox and Snell $R^2$ and Nagelkerke $R^2$ values, it is understood that there is a 14% and 19% relationship between the dependent variable and the independent variables. Also, it can be inferred from the positive and sufficiently high chi-square value ($X^2$ =76,409, p<.05). From the Cox and Snell $R^2$ and Nagelkerke $R^2$ values, it is understood that there is a 16% and 22% relationship between the dependent variable and the independent variables.

**Table 8.** Results of Hosmer and Lemeshow tests

| | $X^2$ | sd | p |
|---|---|---|---|
| Block 1 (OMSW) | 5,655 | 8 | 0,686 |
| Block 1 (OWDM) | 3,388 | 8 | 0,908 |

According to the Hosmer and Lemeshow test, the suitability of the model is not significant for the OMSW and OWDM sub-dimensions (p>05). The fact that this value is not significant means that the model has acceptable compliance.

**Table 9.** Relationships in the model for the OMSW sub-dimension

| | β | Standard Error | Wald | sd | p | Exp (β) |
|---|---|---|---|---|---|---|
| Constant | -1,226 | 0,991 | 1,530 | 1 | 0,216 | 0,293 |
| Sex (Male) | -1,015 | 0,256 | 15,675 | 1 | **0,000** | **0,362** |
| Department (Science Teaching) | 1,457 | 0,757 | 3,703 | 1 | 0,054 | 4,293 |
| Department (Pre-school Teaching) | 0,283 | 0,688 | 0,169 | 1 | 0,681 | 1,327 |
| Department (PCG) | 1,747 | 0,676 | 6,683 | 1 | **0,010** | **5,738** |
| Department (Classroom Teaching) | 0,928 | 0,701 | 1,754 | 1 | 0,185 | 2,529 |
| Department (Turkish Language Teaching) | 1,703 | 0,684 | 6,207 | 1 | **0,013** | **5,493** |
| Department (Music-Art Teaching) | 1,089 | 0,711 | 2,349 | 1 | 0,125 | 2,971 |
| Educational Background of the Father (Secondary School) | -0,457 | 0,362 | 1,594 | 1 | 0,207 | 0,633 |
| Educational Background of the Father (High School) | 0,193 | 0,369 | 0,273 | 1 | 0,602 | 1,212 |
| Educational Background of the Father (University and above) | 0,009 | 0,341 | 0,001 | 1 | 0,978 | 1,009 |
| Educational Background of the Mother (Secondary School) | 0,228 | 0,478 | 0,228 | 1 | 0,633 | 1,256 |
| Educational Background of the Mother (High School) | -0,236 | 0,506 | 0,217 | 1 | 0,641 | 0,790 |
| Educational Background of the Mother (University and above) | 0,268 | 0,505 | 0,281 | 1 | 0,596 | 1,307 |
| Whether Family Members read Newspapers (No) | -0,415 | 0,264 | 2,463 | 1 | 0,117 | 0,660 |
| Whether Family Members go to Theatres(No) | 0,336 | 0,538 | 0,390 | 1 | 0,532 | 1,399 |
| Whether Family Members go to Cinema (No) | 0,149 | 0,279 | 0,284 | 1 | 0,594 | 1,160 |
| Whether Family Members read (In the past year) | 0,712 | 0,576 | 1,527 | 1 | 0,216 | 2,039 |
| Whether Family Members read (I do not remember) | 0,836 | 0,631 | 1,751 | 1 | 0,186 | 2,306 |
| Whether Family Members read (Never) | 0,716 | 0,728 | 0,968 | 1 | 0,325 | 2,046 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Whether Family Members take the Opinions of Their Children (No) | -0,241 | 0,308 | 0,612 | 1 | 0,434 | 0,786 |
| Region (Aegean) | 1,027 | 0,576 | 3,174 | 1 | 0,075 | 2,791 |
| Region (Mediterranean) | 0,315 | 0,554 | 0,323 | 1 | 0,570 | 1,370 |
| Region (Central Anatolia) | 1,025 | 0,446 | 5,285 | 1 | 0,022 | 2,787 |
| Region (Black Sea) | 0,210 | 0,411 | 0,262 | 1 | 0,609 | 1,234 |
| Region (Eastern Anatolia) | 0,226 | 0,349 | 0,419 | 1 | 0,517 | 1,254 |
| Region (Southeastern Anatolia) | 0,044 | 0,427 | 0,011 | 1 | 0,918 | 1,045 |

The estimates in Table 9 are based on the reference groups previously described. According to the model, sex and the departments of PCG and Turkish language teaching are significant predictors (p <05). Also, males are 2.7 (1/0.362) times more likely to be of the opinion that men are superior to women. The participants enrolled in the department of psychological counselling and guidance are 5.7 times more likely to be of the opinion that men are not superior to women than those in the department of CIT. Those enrolled in the department of Turkish language teaching are 5.5 times more likely to be of the opinion that men are not superior to women than those in the department of CIT.

**Table 10.** Relationships in the model for the OWDM sub-dimension

| | **β** | **Standard Error** | **Wald** | **sd** | **p** | **Exp (β)** |
|---|---|---|---|---|---|---|
| Constant | 0,563 | 1,023 | 0,303 | 1 | 0,582 | 1,756 |
| Sex (Male) | -1,049 | 0,266 | 15,532 | 1 | **0,000** | **0,350** |
| Department (Science Education) | 1,332 | 0,771 | 2,985 | 1 | 0,084 | 3,787 |
| Department (Pre-school Teaching) | -0,633 | 0,648 | 0,955 | 1 | 0,328 | 0,531 |
| Department (PCG) | 0,666 | 0,638 | 1,090 | 1 | 0,297 | 1,946 |
| Department (Classroom Teaching) | -0,166 | 0,665 | 0,062 | 1 | 0,803 | 0,847 |
| Department (Turkish Language Teaching) | 0,181 | 0,644 | 0,079 | 1 | 0,778 | 1,199 |
| Department (Music-Art Teaching) | 0,763 | 0,683 | 1,247 | 1 | 0,264 | 2,145 |
| Educational Background of the Father (Secondary School) | -0,894 | 0,373 | 5,752 | 1 | **0,016** | **0,409** |
| Educational Background of the Father (High School) | -0,047 | 0,381 | 0,015 | 1 | 0,903 | 0,954 |
| Educational Background of the Father (University and above) | -0,220 | 0,354 | 0,387 | 1 | 0,534 | 0,803 |
| Educational Background of the Mother (Secondary School) | 0,883 | 0,490 | 3,254 | 1 | 0,071 | 2,419 |
| Educational Background of the Mother (High School) | 0,573 | 0,515 | 1,237 | 1 | 0,266 | 1,774 |
| Educational Background of the Mother (University and above) | 0,761 | 0,514 | 2,196 | 1 | 0,138 | 2,141 |
| Whether Family Members read Newspapers (No) | -0,564 | 0,268 | 4,444 | 1 | **0,035** | **0,569** |
| Whether Family Members go to Theatres(No) | 0,987 | 0,553 | 3,188 | 1 | 0,074 | 2,684 |
| Whether Family Members go to Cinema (No) | -0,004 | 0,281 | 0,000 | 1 | 0,988 | 0,996 |
| Whether Family Members read (In the past year) | -0,615 | 0,652 | 0,890 | 1 | 0,345 | 0,541 |
| Whether Family Members read (I do not remember) | -0,373 | 0,705 | 0,280 | 1 | 0,597 | 0,689 |
| Whether Family Members read (Never) | -0,640 | 0,804 | 0,632 | 1 | 0,427 | 0,527 |
| Whether Family Members take the Opinions of Their Children (No) | -0,124 | 0,315 | 0,154 | 1 | 0,695 | 0,884 |
| Region (Aegean) | 0,701 | 0,583 | 1,449 | 1 | 0,229 | 2,016 |
| Region (Mediterranean) | 0,557 | 0,562 | 0,981 | 1 | 0,322 | 1,745 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Region (Central Anatolia) | -1,358 | 0,456 | 8,864 | 1 | **0,003** | **3,887** |
| Region (Black Sea) | -0,876 | 0,429 | 4,164 | 1 | **0,041** | **2,400** |
| Region (Eastern Anatolia) | 0,604 | 0,359 | 2,823 | 1 | 0,093 | 1,829 |
| Region (Southeastern Anatolia) | 0,096 | 0,433 | 0,049 | 1 | 0,825 | 1,100 |

The estimates in Table 10 are based on the reference groups described previously. According to the model, Educational Background of the Father: Secondary School, Whether Family Members Read Newspapers: no, and Region: Central Anatolia and the Black Sea are significant predictors ($p<.05$). Males are 2.9 times (1/0,350) more likely to be of the opinion that women are dependent on men. The participants who had secondary school graduate fathers are 2.4 times (1/0,409) more likely to be of the opinion that women are dependent on men than those who had primary school graduate fathers. The participants whose family members do not read newspapers are 1.8 times (1/0,569) more likely to be of the opinion that women are dependent on men than those whose family members read. The participants whose family resides in the Central Anatolia region are 3.9 times more likely, and the participants whose family resides in the Black Sea region are 2.4 times more likely to be of the opinion that women are dependent on men than those whose family resides in the Marmara region.

The results of the research can be summarized as follows:

- The GES can be applied to university students (faculty of education) with the same items and the same sub-dimensions applied to the high school students.
- The gender equality course promoted (though unintentionally) the opinion that men are superior to women.
- The gender equality course did not decrease the percentage of the opinion that women are dependent on men.
- Males are more likely to be of the opinion that men are superior to women and that women are dependent on men.
- The participants enrolled in the departments of Turkish language teaching, and psychological counselling and guidance are less likely to be of the opinion that men are superior to women.
- The participants whose fathers are secondary school graduates are more likely to be of the opinion that women are dependent on men.
- The participants whose family members do not read newspapers regularly are more likely to be of the opinion that women are dependent on men.
- The participants whose families reside in the Central Anatolia and the Black Sea regions are more likely to be of the opinion that women are dependent on men.

## Discussion

The actions of people arise from the interaction of previous learning, experiences, existing interests, goals and objectives (Carignan, Sanders & Pourdavood, 2005). Teacher cognitions are the unobservable cognitive aspect of teaching and are related to "what the teacher knows, believes, and thinks." The process in which teachers develop their cognition is influenced by their own learning processes and the courses that they take at universities affect their practices in their classrooms (Borg, 1999, 2003). Because both experiences and cognition are known to affect one's practices (Berry, 2010), gender perceptions of the students of faculties of education are important. These perceptions will affect their classroom practices during the period they work as teachers. The present study aimed to provide insight into the gender-related opinions of the students of a faculty of education, whether the gender equality course affected their opinions (whether the course affected their opinions positively or negatively), and some variables that affect their opinions on gender (sex, educational backgrounds of the mother and father, the region where their families reside, whether their parents take their opinions for the decisions taken within the family, whether their parents go to theatres or watch cinemas etc.).

The study concludes that the majority of the participants (except some extremists) were not of the opinion that men are superior to women. However, the gender equality course had a negative effect on the participants with regards to this opinion. This can be explained by the fact that "we crystallize our early decisions and thus become increasingly resistant to change" (Anderson, 1981, p.191). Gadamer (1975) suggests that our knowledge is not universal or abstract. It is shaped by tradition and prejudice (cited in Hekman, 2016).

In their study evaluating gender practices of Swedish education faculties, Kreitz-Sandberg (2013) reported that although education is quite a *feminine* field as a study area, the faculties of education have horizontal and vertical segregation in the context of gender. According to the researcher, while the students enrolled in the early childhood, primary and secondary school teaching departments of faculties of education are mostly female. The prospective male teachers prefer more complex areas such as mathematics and science. Moreover, school administrators in Sweden are generally male (although the number of female administrators has increased in recent years). The Turkish education system has a similar profile. For example, the number of prospective female teachers studying in the faculties of education and educational sciences is almost twice that of men (Ulkar, 2016). If we look at the people working in the faculties or institutions of education, it can be seen that the number of female and male lecturers has been equalized in recent years. However, when this number is examined in terms of academic staff, the number of male professors and associate professors working in the field of education in the country is 1.8 and 1.3 times the number of female academic staff, respectively. Moreover, the administrative staffs of the faculties of education and

educational sciences, where the majority of students are female, consist of men (Higher Education Database [YOKSIS], 2019). This is also the case for teachers working in schools affiliated to the Turkish Ministry of National Education (MoNE). The number of female teachers working in public pre-schools and primary schools in the academic year 2017-2018 is 17.4 and 1.62 times the number of male teachers. At the secondary level, these rates change in favour of men. Besides, the number of male teachers in science high schools, which are the most distinguished institutions of the country in secondary education with their science-intensive curriculum, is about twice the number of female teachers (MoNE, 2017/18, pp. 55, 70, 129). Even though the statistics of the gender of the administrators of the educational institutions are not shared by the relevant institutions (YOK and MoNE have not shared such statistics with the public), it is stated that the percentage of male administrators in the schools affiliated to the MoNE is more than five times higher than the percentage of female administrators (Iste MEB'in mudurleri, 2017). Moreover, the prospective teachers who participated in the study of Ozen (2018) think that the school administration is the field of men, and they normalize the power provided by this role. For these reasons, we can also argue that there is both horizontal and vertical segregation in the context of gender in the educational organizations in the Turkish education system.

Socialist feminists draw attention to a different point about the fact that education becomes an increasingly feminine field. According to socialist feminists, the limitation of women to domestic areas such as housework and motherhood serves the purposes of the capitalist economy. Women who form labour stocks are directed to low-paid and low-status jobs and especially to the service sector in case of need or crisis. Thus, women do not pose a threat to men with higher status and higher wage jobs and provide a competitive advantage by balancing their salary rates. When the period of need and crisis is over, they can be returned to their domestic duties (Heywood, 2014). Indeed, according to the effective teacher policies text prepared by the OECD in 2018 based on the 2015 PISA results, in countries where teachers' salaries are high, the number of male and female students who want to pursue a career in teaching is equal and the career choices of men are more sensitive to the salary return. This result may indicate the possibility that more women in the future will prefer a teaching career whose income level is not high anywhere in the world.

The results of the present study show that the students of the faculty of education have a moderate level of the opinion that women are dependent on men, that the gender equality course did not decrease the number of students who were of this opinion before the course as expected. The male students in the study are more likely to be of the opinion that women are dependent on men. Marx and Engels considered the division of labour in reproduction "natural." However, Mies (1998, cited in Brown, 2015) points out to distinguish between the production of life and the production of daily necessities, to accept the first as "natural", and second "social" Marx and Engels were inadvertently contribute to the biological determinism that we still suffer today" (p. 65). Gough (2012) states that,

from the very beginning, "women have been dependent on men in some key areas of status, mobility and public leadership", that this change became apparent with the birth of states in 4000 BC, "with the development of class society and male domination in the ruling class, women's secondary positions reinforced" (p. 81). The secondary position of women has also been reinforced with the development of patriarchy and conservatism. Traditional conservatism advocates that the gender-related gap between "public" man and "private" women is natural and unavoidable due to the patriarchal structure of society where women are born to be housewives and mothers (Heywood, 2014, p. 244). When transforming the concept of patriarchy into a theory, Walby (1990) mentions that it is as flexible as historical, and in cooperation with other forms of oppression. Patriarchy opposed by the second wave of Western feminism and regarded as the main reason for the pressure on women, also cooperates with capitalism and industrial relations. In other words, as Sancar (2009) stated it, "it is patriarchy that restricts women to the private sphere and subordinates their production area" (as cited in Aliefendioglu, 2013, pp. 16-17). Since the teaching profession is regarded as a continuation of women's motherhood and domestic responsibilities, the fact that the students of the faculty of education had a moderate level of the opinion that women are dependent on men. That's why the gender equality course did not change education faculty students' opinion in this regard can be considered as an expected result. However, the finding from female students about the dependent on men is inconsistent with the findings of some previous studies. The results of previous studies show that female students have more egalitarian attitudes and roles (Baykal, 1991; Ognen & Aytac, 2013; Secgin & Tural, 2011). However, the results of recent research with Generation Y indicate that this generation adopts values related to gender equality more, but that they carry the traces of traditional roles and values of men and women (Budak & Kucuksen, 2018).

The results of this study also indicate different opinions in terms of gender equality among the students at different departments, from different geographical regions, with fathers of different educational backgrounds, and different habits of reading newspapers. Similarly, the findings of some previous studies have pointed out different opinions in terms of gender equality among students in different departments. For example, the results of a study conducted by Cangoz (2013) with the students of four different faculties of communication have demonstrated that the students who will become the "media professionals of the future" have highly limited knowledge and awareness about sexist violence and women's rights, and that the vast majority of students think with the values and judgments of the patriarchal structure. Furthermore, some previous studies in Turkey have also reported findings that equitable social role attitudes for women and men are influenced by the age, educational levels and the regions of the participants. For example, Can and Buyukbayraktar (2018) have reported that women's egalitarian social role attitudes are positively influenced by their education levels and negatively affected by their age. For men, on the other hand, only higher education graduation has a positive effect on their egalitarian role attitudes. Using official statistics results

Gazioglu (2014) documented that, women living in the Eastern Black Sea Region are subordinated in education and employment and domestic roles by patriarchal beliefs and practices.

The introduction of gender as a course in higher education institutions and revision of the traditional roles of women and men shaped by culture will be an opportunity to create a more fair structure for women and men who make up the society. However, the content of the program, the teaching methods, and techniques to be used, and the evaluation of the course will affect the intended results. Therefore they should be taken into account when preparing and teaching the course. This study found that the gender equality course offered as a compulsory-elective course in a faculty of education did not produce the expected results on students. In fact, UNESCO (2015) recommends that gender equality should be *integrated* into the whole program of faculties of education, rather than being included as a course. Acar-Erdol and Gozutok (2018) report that the learning outcomes, content, learning experiences and measurement and evaluation in the curriculum prepared for the gender equality course should be appropriate to the students' level and needs. Esen (2013) found that in an undergraduate course in faculties of education focusing on gender equality, prospective teachers started to question their traditional judgments about gender and were motivated for transformation and change. Verge, Ferrer-Fons and González (2018) have reported that when integrating gender into higher education programs, it is important that the relevant qualifications of the teaching staff be developed, resistance to institutional change related to gender be taken into account, monitoring and evaluation established in which the results obtained from the application will be continuously evaluated and corrected.

According to Vygotsky, "the school is not only a word or a physical structure, but also an institution that seeks to improve learning and qualifications of citizenship." (Schunk, 2011, p. 243). Because the education programs and teaching materials offered by schools to students so far have contained elements related to gender discrimination (see: Kalayci & Hayirsever, 2014; Unlu-Cetin, 2016 research results), it is especially important that teachers are sensitive to gender-related problems and are trained to overcome these problems. This requires careful integration of gender equality into the education programs of the faculties of education.

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