

Research Report

EDUCATION STUDENTS' ATTITUDES TOWARD GENDER ROLES

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Abstract – *The focus of this study is to examine candidate teachers' and school counsellors' attitudes towards gender roles and to see if the variables like gender, years spent at the Faculty of Education (or grade level), and the area of study within the Faculty of Education have any impact on their attitudes toward gender roles. A total of 562 subjects participated in the sample of the study. The data were collected by administering a questionnaire which measures attitudes toward gender roles. The study has three independent variables – gender, area of study, and grade level. The data were analysed by using one-way ANOVA, Sheffe test and t-test. It was found that, according to the gender and the area of study, students present differences in their attitudes towards gender roles, but there was no significant difference between different grade levels.*

Introduction

It can be said that sex stereotyping starts at the moment of birth - probably even before birth, when expectations related to the new-coming baby are being considered. It continues during childhood when girls are given dolls, boys are given toy trucks, and even story books and comics are sex-divided. Children's play and play-groups tend to be sex-segregated and to be sex-differentiated by the type of activities they are involved in.

Values related to gender roles are reproduced within families, and maintained during school life. Literature about the dynamics of interactions between teachers and students gives us valuable information regarding inequalities in the treatment of the two sexes and further enlightens interesting points (Kelly *et al.*, 1985; Kelly, 1986; Ebbeck, 1984; Kahle and Damjanovic, 1997; Jones, 1989). Kelly (1986), for instance, drawing on a meta-analytic study related to the gender differences in teacher-pupil interactions, estimated that teachers spend 56% of their time with males, and 44% with female students, concluding that girls are under-represented in teacher-pupil interactions. Similarly Jones (1989) showed that teachers addressed significantly more praise, conversation, private communications, behavioural warnings, and direct questions to male students. Some mechanisms in formal education institutions – such as gender-biased curricula, curriculum

materials, textbooks, classroom dynamics and management – also employ and maintain discrimination on the basis of gender. For example, text books traditionally characterise females as passive, emotional creatures defined by family roles, whereas males are generally characterised in opposite but equally stereotypical roles. Such textbooks strengthen the image of males and females during school life and help to structure gender stereotypes (Boocock, 1971; McCune and Matthews, 1975; Sadker and Sakker, 1981; Helvacioğlu, 1996).

Acker (1988) has documented how teachers contribute to gender inequalities in schools. She proposed three main categories of inequalities which may summarise the results of related research studies. According to Acker, inequalities in the classroom include (a) the dynamics of teacher-student and student-student relationships, (b) the establishment of a 'gender regime' – which is the dominant motif in a school and which contributes to the construction of masculinity and femininity and the sexual division of labour; this may include curricula, timetables and all those practices of school life demonstrating gender as the major organising principle, and (c) teacher resistance, that is, the ideologies and beliefs held by teachers, and which causes them to resist anti-sexist or equal opportunity initiatives, policies and practices in their schools. Teachers' behaviours may either reflect and accelerate the discriminatory practices or they may challenge those practices.

The focus of the present study is to examine prospective teachers' and counsellors' attitudes towards gender roles and to see if the gender of the respondents, the grade level and the area of study have any effect on their attitudes toward gender roles.

Research Method

Sample

The data of the study were collected from prospective teachers and prospective counsellors enrolled at Bogaziçi University Faculty of Education. In Turkey, all teachers must be university graduates of four-year undergraduate programmes. Entrance to universities is regulated by a centralised University Entrance Examination. According to Akarsu (2000), 1.4 million youngsters took the two-tier university entrance examinations in 1996 and only one out of ten was placed in one of the academic options. Bogaziçi University is one of the top universities and every department of the university attracts the best performing students in that exam. Students from three different areas of study have participated in the sample (Foreign Language Education, Science Education, Guidance and Counselling). All of these areas of study are four-year undergraduate programmes. In both of the teacher education programmes – i.e. Foreign Language Education, Science

Education – students get similar pedagogical training courses as well as education courses related to their specific fields. In none of the programmes is there a specific course related to gender and education.

A total of 562 prospective teachers and counsellors participated in the sample. Also the ratio of questionnaires that were completed without any missing value was approximately 92%. There were 363 female and 184 male subjects in the sample. In other words, 64% of the sample consisted of females, whereas 33% of them were males. Distribution of subjects according to the grade levels and programmes are shown in Figure 1 and Figure 2.

Instrument

The data were collected by administering a questionnaire which consisted of two parts. The first part included demographic information, and the second part was a scale with 30 items which measures attitudes toward gender roles. The scale

FIGURE 1: Distribution of subjects according to programmes

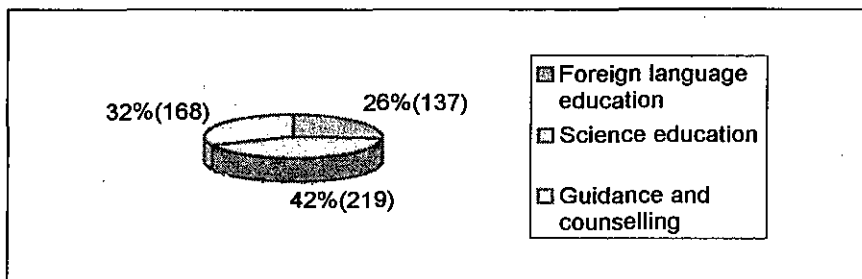
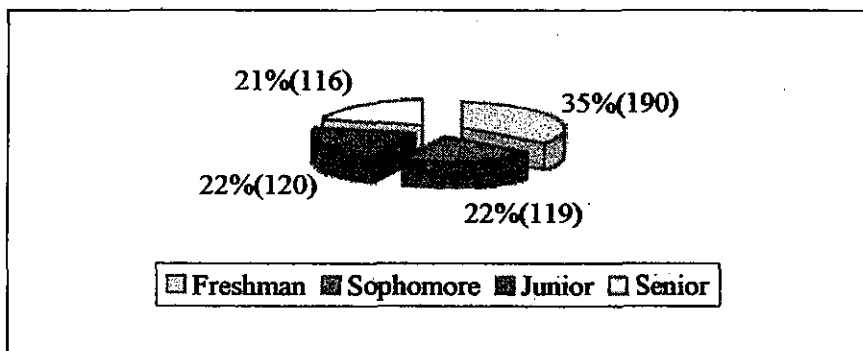


FIGURE 2: Distribution of subjects according to grade levels



was originally developed by Chirestensen and Massey (1989). The original scale presents a variety of commonly-held stereotypes of role-appropriate male and female behaviours, which can be classified as social roles, domestic roles, professional roles and attitudes to education and children. After translation studies, two of the items from the original scale were omitted from the Turkish version because they were culturally irrelevant. For example, the statement, 'It is important for a teacher to say 'he' or 'she' when using an example which could refer to a male or female' was omitted because in the Turkish language only one pronoun is used for the third person singular form, so there is no indication of gender similar to 'he' or 'she' third person singular forms as in the English language. Each of the 30 items in the Turkish version had five response alternatives, ranging from 1 (strongly agree) which represents a traditional perspective, to 5 (strongly disagree) which represents an egalitarian perspective, except for some reverse items. The internal consistency of the questionnaire was calculated to be .92 by Cronbach Alpha. The data were collected on three independent variables, namely gender (female, male), area of study (Foreign Language Education, Science Education, Guidance and Counselling), and grade level (1, 2, 3, 4). The total score obtained from the instrument was the dependent variable. Possible scores on the second part of the questionnaire ranged from a minimum of 30 (traditional) to a maximum of 150 (egalitarian).

Data analysis

For the purpose of the analysis, scoring of several items was reversed and recoded. For example, one of the statements: 'Girls are better than boys at reading', a score of one (strongly agree) reflects a traditional perspective, while five (strongly disagree) indicates an egalitarian position. The reverse is the case in the item 'Girls should share the cost of dates with their boy friends'. The data were analysed with one-way ANOVA by using the total score from the scale as the dependent variable. To compare the means, Sheffe test and t-test were also used.

Results

The result of one-way ANOVA by using the total scale as the dependent variable showed a significant main effect of gender ($F = 90.264, p < .0001$). The result of t-test for independent samples of gender is shown in Table 1. As can be seen from Table 1, there is a significant difference between the mean scores of the two groups, where females ($X_F = 103.14$) had more egalitarian views than males ($X_M = 87.03$).

TABLE 1: *t*-test results for independent samples of gender

	n	X	SD	SE of X
female	363	103.14	10.99	.57
male	184	87.03	14.20	1.04
mean difference = 16.10				
Levene's Test for Equality of Variances: $F=8.75$ $p=.003$				

The results of one-way ANOVA by using the total scale as the dependent variable showed that there is a significant main effect of area of study ($F = 10.11$, $p < .0001$). In order to analyse the differences between areas of study, the Sheffe test with significance level .05 was conducted and the results indicated that subjects enrolled in Foreign Language Education ($X_{FL} = 102.0876$) and Guidance and Counselling programmes ($X_{GC} = 102.1667$) had more egalitarian views than the subjects enrolled in Science Education programme ($X_{SE} = 91.5479$). In other words, students studying science education presented significantly different attitudes in comparison to students studying language and counselling ($p < .05$).

The results of one-way ANOVA by using the total scale as the dependent variable showed that there is no significant main effect of grade or the years of study in the Faculty of Education ($F = 2.927$, $p > .01$).

Discussion

The results suggest that gender and area of study contribute to a difference in students' attitudes toward gender roles. Similar results have been found in the related literature (Pratt, 1985; Spear, 1985; Chirestensen and Massey, 1989; Öntür and Engin, 1996). Females and males have significant differences in their attitudes toward gender roles. Males hold more traditional views whereas females have more egalitarian views of gender roles. This result shows that males are more conservative whereas females are more open to changing roles and more egalitarian. It can therefore be said that gender difference reflects differences in peoples' expectations related to gender roles. There may be several explanations for this: for example, females in the sample constitute a select group in the sense that they were the brightest candidates in the university entrance examination, are

hard working and ambitious, and can afford to study at one of the top universities of Turkey. Their performance level may be an indicator of their characteristics. As has already been mentioned, the ratio of placement in one of the academic programs as a result of success in university entrance exam was one out of ten in 1996. If the chances of male and female high school graduates are compared, the ratio is in favour of males. According to Ministry of Education statistics (1999), there was a total of 15,074,411 students in different levels of education. 8,389,965 of them were males and 6,684,446 of them were females. If the male-female ratio is calculated by using the above mentioned figures, the result is approximately 5:4. As the level of education increases, and if only secondary school education is considered, we find a total of 607,332 male and 391,357 female students, with the male to female ratio working out at approximately 6:4. So, at the graduation of secondary school education, females and males enter the university entrance examination along this ratio and it may help to understand the characteristics of female students in the university population in Turkey. Females who have made it up to this point may suffer more from stereotyped behaviour patterns and because of that reason they may be more prone to changing their behavioural patterns to more egalitarian gender roles.

The present data also shows that there is a significant effect of the area of study on attitudes towards gender roles. In other words, students who study language education and guidance and counselling present more egalitarian views than students enrolled in the Science Education programme. Of course, students' entry characteristics and demographical characteristics may vary in these programmes. In order to have an idea about the differences in sample students' demographic characteristics, some related descriptive statistics may serve. For example, 67% of the students in science education programme lived in a city before their university education. In contrast, the corresponding statistics were 81% for those in foreign language education, and 89% for those studying guidance and counselling. The fact that 33% of students in science education programme lived in a village or a small town most of their life may account for the more traditional attitudes evinced by these undergraduates. Similarly, if we look at the education levels of parents, students in science education programme present different characteristics than the ones who enrolled in other two programmes. Only 29% of science education students have mothers who have graduated from a high school or a university, and 41% of them have fathers having graduated from a high school or a university. In contrast, 69% of language education students have fathers who have a high school education or who are university graduates. The percentage of language education programme students with high school or university graduate mothers is 48%. Some characteristics of parents of guidance and counselling students are similar to those of parents of language students, with 68% of mothers and 76% of

fathers being high school or university graduates. Again, if we look at the occupations of mothers, we note that 83% of science education students reported that their mothers do not work, with the percentage decreasing to 78 for those in language education, and 74 for those in guidance and counselling. These figures suggest that students who study science have different demographical characteristics in comparison to others and this difference may shape their attitudes toward gender roles.

Another important point is related to the gender distribution or male/female ratio in these programmes. There was a total of 249 females in language education and guidance and counselling, whereas in science education, the number of female students was approximately 1:3, working out to a total of 92. A consideration of the difference in the male/female ratio may well contribute additional points to the discussion. The male/female ratio in these programmes typically reflects the masculinity of science and related professions. The masculinity of science is an example of the cultural reproduction of gender which deserves closer attention. Kelly (1985) identifies four important points behind the arguments related to the masculinity of science. The first point, according to Kelly, is related to the number of those who study science, who teach it, and/or who is recognised as a scientist. The second point is about the way science is presented in society. The third point is related to the classroom behaviours and interactions whereby elements of masculinity and femininity developed in out-of-school contexts are transformed in such a way as to establish science as a male preserve. Finally, the type of thinking labelled 'scientific' embodies an intrinsically masculine world view.

These four arguments have particular importance in the explanation of classroom practices. Results of the present study and characteristics of the sample reflect the masculine dominance in the science education programme. Findings related to the difference in areas of study – mainly stereotypical masculine characteristics of prospective science teachers – raises an important issue related to science education, namely girls' participation in science classes and science related professions. Children acquire an interest in science at an early age, well before attending secondary schooling. Girls and boys enter science classrooms with sex-role stereotyped attitudes toward the appropriateness of science and related activities for them and their girl and boy classmates (Reid and Stephens, 1985; Jones and Wheatly, 1988; Mason, Kahle and Gardner, 1991). For example, boys react positively to the careers related to science, whereas girls tend to reject science and science-related careers for themselves as well as for their future husbands (Mead and Metraux, 1957; Lawrenz and Welch, 1983; Jones and Wheatly, 1988). Also, results of the research studies show that female students tend to choose and pursue scientific

careers when they receive positive messages from parents, teachers, counsellors, and peers, when they are exposed to role models and when they expect to succeed in the enterprise (Jones and Wheatly, 1988; Huber and Burton, 1995). At that point the role of the science teacher is crucial as he/she is the person who may shape the attitudes for the better. If the sensitivity of girls towards the stereotypic environments which perpetuate the masculine characteristics of science is considered, male science teachers' attitudes toward gender roles gain more importance.

The present study also indicates that the grade level does not make any difference in terms of changing stereotypical attitudes of gender roles. Areas of study make a difference between the expectations related to gender roles of students but this difference is neither created nor changed at the university level. This means that males and females have made up their minds or shaped their expectations before they enter university, and four years of study do not seem to have an effect on their attitudes. It may also be concluded that even their outlook may very well influence the choice of areas of study: however, this point requires further data and research.

In interpreting the results of the individual item analysis, it must be noted that in most of the mean scores there was a tendency towards an egalitarian direction. However, this does not imply that the magnitude of the mean indicates either the egalitarian or the traditional viewpoint for each item. In a number of cases, students could not reach a mean level of agreement or disagreement in accepting or rejecting traditional stereotypes. For example, the statements 'Girls should share the cost of dates with their boy friends', 'Girls should be permitted to participate along with boys in all sporting teams', or 'There should be more women working as engineers' are the type of statement on which all could not reach a mean level of agreement or disagreement in accepting or rejecting the traditional viewpoints. Means of individual items for different groups show variability between $X = 2.06$ to $X = 2.91$ out of 5 (egalitarian). Also, a relatively more conservative attitude by female students emerged on items related to behaviour such as drinking and swearing.

Conclusion and recommendations

As the above discussion indicates, two important interpretations of the data can be made. The first interpretation is related to the differences in the attitudes of male and female students. On the basis of existing research results, it seems reasonable to conclude that male students seem to have more traditional gender roles than female students and female students are more sensitive toward the

issues of gender. The second conclusion that can be drawn is that the grade level does not have any effect on changing the attitudes of students. Among the findings of this study, the most striking is the result related to the effect of grade level when one considers the mission universities hold regarding social change. Of course the previous statement can further be elaborated for faculties of education and for important roles of teachers in shaping the behaviours of individuals in society. As it was mentioned before, none of the programmes contains a specific course related to gender and education. The results indicate that other courses in the programmes do not have any influence in changing stereotypical gender roles either. From the above findings, it is not easy to anticipate that the teacher education programme intentionally prepares teachers to challenge gender discriminatory practices in their professional and personal lives. Experiences students have during the course of their study do not seem to make any difference in terms of changing their attitudes.

Research evidence suggests very strongly that teachers' attitudes towards gender roles may have significant impact on their interactions with students. The present study does not examine this issue, but it indicates that further research is needed to investigate this phenomenon. Teacher-training programmes must meet the challenge of preparing teachers to overcome their own biases in their values, and recognise the impact of their expectations on the behaviour of their students. A similar conclusion can also be used for guidance and counselling programmes, which will prepare counsellors of future generations. How well prepared are today's teachers to meet the needs of both male and female students? Will they be able to address the needs of diverse student groups in their classes? Most of the time, teachers tend to teach the way they themselves were taught and it is one of the important reasons why some teachers are conservative in terms of changing their attitudes, values and beliefs about teaching. Of course, male-female differences in attitudes, together with the enrolment ratio of males and females in different programmes, cannot be solely attributed to the way the school socialises students, or to teacher attitudes and behaviour. However, these certainly do contribute to the formation of gender identities. All educators want to provide and create the best learning environment for their pupils, but this does not prevent them from reflecting their social values and attitudes on their practices. Schools or educators seems to play more of a reproductive rather than a transformative role in the formation gender identities.

Academics, as teachers of future teachers, also have a vital role to play and are important models in transforming the attitudes, beliefs and values of prospective teachers during the period of pre-service education. So, they themselves may have to test and reconstruct their attitudes toward gender roles and related classroom behaviours.

Finally, a cautionary note is called for. Students who participated in this study were a select group studying at one of the outstanding higher education institutions in Turkey – they represent a relatively homogeneous group in terms of socio-economic background as well as academic ability. Further studies with wider samples are therefore needed to consider the factors that may directly or indirectly affect gender-related attitudes in a larger context.

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