Social Gender Inequality in Terms of Academic Signs in Higher Education of Turkey: Horizontal and Vertical Differentiation

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Abstract
Higher education institutions are intended to meet modern days’ requirements, based on with scientific elements, initiators and models for other social settlements and expected to have required culture knowledge and climate, with gender equality. However, gender inequality continues to exist as a subject that shows itself in the education system in a common and prominent way and stands out globally. This study aims to investigate the social gender inequality in higher education system of Turkey in terms of academic signs horizontally and vertically. The population of the study is limited to 109 state universities, 84 foundation universities and eight foundational vocational school of higher education, which are the three types of educational institutions in Turkey. Rather than sampling, it aims to reach all the population, and the data is obtained from YOK statistics from the 2014-2015 educational years. Supplementary data were obtained from OSYM, TUSIAD and YOK. After the analysis of these data, it is understood that rate of women’s graduation and participation and the rate of participation in the workforce and academia are low. In addition, higher education statistics in Turkey reveals the increase level on social gender inequality in terms of the participation in authority/judgment department, assignment in administration process and preferences in academic discipline fields.

Keywords: equality of opportunities in education, education, women, gender equality, higher education

Introduction
Developing and changing global processes have made the power of competition in all countries measurable with social and human funds. Therefore, higher education has become the focus of all countries owing to the increasing anticipation for universities which takes the main role in development of the human/social funds and rising participation in workforce. While the interest for higher education is increasing, the number of the elements who depend on the higher education on social and individual basis has started to diversify, the responsibility and liability of higher education has increased and has become a global rather than a territorial concept. The increasing interest for higher education has discussed the principles and standards of higher education, its administration and finance, and its internal and external quality in terms of qualitative and quantitative dimension. Especially, the multiple responsibility of higher education has expanded the social scope of these discussions. These discussions that intensified in the world and Turkey have started to include especially some social factors beyond financial and academic concerns. While developed countries see higher education quality and finance as main problems more, developing countries, besides these problems, see dissemination of education and inequality concerns as basic problems (Tansel, 2003).
The government’s duty is to ensure permanency of education and equality to access to this education in order that individuals, who form society, can adjust themselves to the modern changes and alternations in the world, and can acquire a free personality and gain functionality in socio-economic systems. It is required that everybody should be able to participate in different stages of education system equally in the society. The terms “equality” and “accessibility”, which are secured by the constitution are directly related to the basic qualities of the higher education system. In the light of these two terms, each investment on the system of higher education provides the participation of everybody in the scope of the target population of the education by expanding the vision of education. However, this situation cannot easily take place, especially when it comes to the access to higher education and equality. The inequality that is formed based on sometimes territorial/local factors, sometimes on financial factors, and sometimes on gender, poses some obstacles for access and equality. The gender inequality problem continues to exist as the most common and significant kind of inequality because it appears in each stage of education (Maya, 2013).

Social gender is an important analytical tool that mediates the sexual division of labor, learning hierarchy and questioning inequality (Ecevit & Katkiner, 2012, p.26). The term “social gender” not only offers an insight into the social facts which form society, but also gives rise to the term “social gender equality”, emerging from social dynamics, like the roles of man and woman, internalizing and transferring of these roles and renewing roles. Gender equality, the equality between men and women, includes the idea that every human being, man or woman, has his/her own freedom to personally improve and to make a selection without stereotypes, gender roles and prejudice (UNESCO; 2000, p.5). However, the term “social gender” has created a lower social status and a special area, which is restricted through the concept of gender for women, based on the hegemony of men, and has continued to exist since primitive societies. Social gender inequality, including sexism and inequality, is not a new term in the literature. On the contrary, it is a complex term whose effects have been witnessed in many areas of social life for a very long time. It is well-known fact that there has always been an unequal division of labor due to gender role differentiation between men and women, and this unequal division of labor has been the source of social gender inequality, which is accepted as one of the most important dimensions of inequalities existing in today’s society (Suğurver Gâng-Şavran; 2006, p.196). On the other hand, societies expect both men and women to behave appropriately according to social gender classes by ascribing stereotyped behaviors and responsibilities and by minimizing the above-mentioned freedom. In this sense, gender roles, forcibly created by society, increase sexism and prevent men and women having equal rights and status. “A person’s social gender role” intervenes in access most of social opportunities, and affects the ability to benefit from government sources and services. Cultural tendency, which is a propulsive force, in this regard, draws the lines of above-stated access. The biggest tendency to gender-gap occurs in the countries where the most powerful cultural preferences are in favor of boys (EFA; 2003-2004, p. 18). Gender based roles bring disadvantages in access and equality, especially in the countries like Turkey, in which masculine values, a result of society system, are dominant.

We can see that gender inequality, taking attention on a global scale, is the priority problem of many countries. Finland, which, as known, encourages gender equality in every part of the society, is a country that promotes higher education. However, woman academicians are exposed to gender inequality on a high level even in there (Husu, 2000). In addition, the same issue in West African countries is much worse. The gender inequality in Tanzania, Ghana, Nigeria and Togo has been increasing since 1960, due to marriage at early ages, child slavery, kidnapping and poverty (Tuworve Sossou, 2008). All differentiations based on gender prevent the equality to access to social resources and services, especially educational resources and services, and to benefit from them in each social layer. From this point of view, we can face the problem of differentiation based on gender at every level of education system, especially at the higher education level. In a study which aims to create a projection from 1985 to 2025, the percentages of female students participating in higher education have been found, and Korea 38% and Turkey 43% were the two lowest. This rate is expected to be 40% for Korea, 43% for Turkey in 2025, and this is far below the average (OECD, 2008). According to the data of higher education gender inequality index (2000), Turkey is one of 50 countries in which the rate of male registration to higher education institutions is high (EFA, 2003-2004,p.77). Turkey is 120th of 136 countries in World Economic Forum 2013 Global Gender Gap Report.

Studies about gender inequality in education need be analyzed to find out the reasons for these negative results in terms of gender inequality. Especially in higher education, the level of gender inequality in mechanisms of authorization and decision-making is extreme. Ayyıldız, Ünnü, Baybars and Kesken (2014) explained the fact that there is not enough participation in the mechanisms of
authorization and decision-making in the universities of Turkey, due to factors like lack of mentor support, the conflict between family and business life, stereotypes for women, the dominance of masculine culture etc. The management staff in both state and private universities is dominated by male employees, while the inequality in administrative systems continues. Women in leader positions mostly work in small and low prestige schools (Bilen-Green, Froelichve Jacobson, 2008). The number of females in management staff, especially in higher education is still low despite the discussions focused on equality. This case restricts females’ voice in arranging external controls, like educational economy, policy and legal arrangements, and internal controls, like usage of sources and environment and creating programs and staff (TÜSIAD ve KAGİDER, 2008, p.67). On the other hand, it is clearly seen that inequality still continues in spite of the increase in number of females, within the research of social gender in distance university system. In brief, the open university system can include low and average income groups, who can be counted as relatively lucky, but the women who are “dirt poor”, “rural victims” and “surrounded by patriarchy” are excluded from this system (Suğurve Gönç-Şavran, 2006, p. 214).

Many researches reveal that there are gender stereotyped career choices considering career development and field selection as part of gender inequality. While women tend towards the fields that are labeled “female” by society on the basis of gender in the beginning of field selection or career process, men tend towards the fields that are defined as “male”, and a relatively wider range of other fields compared to women. In the European Union and Asian countries, when the most preferred fields by female students in higher education level are health sciences, social sciences, language and culture, economics, department of law and art, the least preferred fields are engineering, mathematics, science and natural sciences (Merter, 2007). Another issue that should be pointed out is the role of gender inequality in education in development process. When the body of literature is analyzed, it stands out that there are ew studies about the effect of social gender inequality in education on development process. Klasen and Lomanna (2009) stated that it is important to eliminate the inequality in economic development, and women have more economic gain than men when educational gains are compared in terms of economy.

**Aim of the Study**

Gender inequality is one of the most important problems in higher education which should be resolved considering the cases mentioned above. The reflect of patriarchal tendency on higher education in Turkey, academic stereotypes related to female gender, role conflict based on gender, and forces to which women are exposed on individual and institutional basis cause this problem to become deeper. Research shows that gender inequality remains when it comes to field preference, career development, schooling rate, staff, management roles, economical gain etc. However, it can cause distance from this study’s primary objective if each one of these factors is discussed in the same study. Therefore, gender inequality in higher education is analyzed in two dimensions as vertical and horizontal differentiation, so qualitative boundaries of the study are drawn. This study aims to reveal social gender inequality in higher education system in Turkey, as vertical and horizontal basis, as part of academic indicators. Within this scope, three basic questions are asked:

1) What tendencies affect the female participation rate in higher education and academic staff within the context of gender inequality?

2) What is the current situation regarding participation rates and preferences of men and women in different higher education fields?

3) What kind of tendency does women’s participation rate in academic workforce in higher education show in terms of professional hierarchy?

**Method**

To describe and analyze the current situation in the research, qualitative research model has been adopted. According to Yıldırım and Şimşek (2005, p. 19) in qualitative research, qualitative data collection methods like observation and document analysis are used, and these are studies that follow a qualitative process which perceptions and events are put forward in a realistic and wholesome manner. The target population is the 109 public universities, 84 foundation universities and 8 foundation vocational schools in Turkey. The aim is to reach target population without sampling. For this purpose, document analysis technique was used from the qualitative research model. In document analysis, accessing to documents, checking the authenticity of the documents, understanding the documents, analyzing and using the data steps are followed (Yıldırım and Şimşek,
Firstly, the literature review took into consideration of the data from UNESCO 2000, EURYDICE 2009 and EFA 2003-2004, then to find reliable sources, official YÖK statistics, periodicals belonging to ÖSYM and TÜSİAD 2000 report were used. The data, as in line with the purpose of the research, was analyzed and systematized in the horizontal and vertical differentiation dimensions. The official websites of government agencies and the ratio of men and women in different fields, which was acquired by the required literature review, are tabulated in vertical dimension and the differentiation in academic staff and educational units are shown in vertical dimension.

**Results and Discussion**

Vertical differentiation in higher education while the number of women graduates outnumber men, the representation of women at the doctoral level are fewer and even fewer women are in senior positions at universities. Thus, the vertical differentiation means less representation of women at high levels in professional hierarchy (Eurydice, 2009, p.118). In particular, vertical differentiation in higher education includes the gender differences in participation and graduation numbers. Additionally, women are not being adequately represented at decision-making and authority mechanisms in academic staffs. This is directly related to vertical differentiation. Therefore, the distribution of the female-male ratio in academic staff and the female to male ratio in the academic staff of private and public universities are analyzed according to education units.

Table 1. Percentage of Women in Academic Staff by Years (2009-2015)

<table>
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<tbody>
<tr>
<td>Professor</td>
<td>27.8</td>
<td>27.7</td>
<td>28.2</td>
<td>28.4</td>
<td>28.7</td>
<td>29.3</td>
</tr>
<tr>
<td>Associate professor</td>
<td>31.9</td>
<td>32.3</td>
<td>31.9</td>
<td>32.4</td>
<td>33.9</td>
<td>34.2</td>
</tr>
<tr>
<td>Asst. Associate professor</td>
<td>35.4</td>
<td>35.5</td>
<td>36.3</td>
<td>37.2</td>
<td>38.9</td>
<td>39.5</td>
</tr>
<tr>
<td>Lecturer</td>
<td>38.8</td>
<td>39.1</td>
<td>38.8</td>
<td>39.5</td>
<td>43.4</td>
<td>43.3</td>
</tr>
<tr>
<td>Expert</td>
<td>44.8</td>
<td>45.1</td>
<td>47.7</td>
<td>47.9</td>
<td>48.8</td>
<td>48.9</td>
</tr>
<tr>
<td>Research Assistant</td>
<td>47.9</td>
<td>48.1</td>
<td>48.7</td>
<td>49.1</td>
<td>49.4</td>
<td>49.8</td>
</tr>
</tbody>
</table>


Table 1 indicates the percentage of women in academic staff between the years of 2009 and 2015. Looking at the data from a hierarchical point of view, it is seen that women are represented the least in professor title and even though there is an increase it should be noted that it is not enough. There is only a 1.5% increase from 2009 to 2015. Women are best represented at the Research Assistant level. In addition, the rate of increase in the number of women in research assistant status is 1.5%. It is clear that as you go higher up the hierarchy, the ratio of women and the representation of women is decreasing. When you look at the overall view, even though there is a positive disposition, the
increase in the ratio is small. In some countries, various studies are conducted in order to overcome gender gap in the hierarchy of the academic staff. In some European Union countries, gender quotas ensure gender equality in higher education management staff. Some countries have regulations for this purpose. In Sweden, when employing teaching staff, if there is equality in competence women, whose representation is lower, could be preferred by court ruling (Merter, 2007, p.241).

Table 2. Percentage of Women in Academic Staff in Public and Private Universities

<table>
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<tr>
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<tbody>
<tr>
<td>Professor</td>
<td>16.1%</td>
<td>26.3%</td>
<td>24.2%</td>
<td>29.8%</td>
</tr>
<tr>
<td>Associate professor</td>
<td>36.6%</td>
<td>36.1%</td>
<td>29.9%</td>
<td>34.1%</td>
</tr>
<tr>
<td>Asst. Associate professor</td>
<td>40.2%</td>
<td>45.6%</td>
<td>29.6%</td>
<td>38.1%</td>
</tr>
<tr>
<td>Lecturer</td>
<td>46.6%</td>
<td>56.5%</td>
<td>33.8%</td>
<td>39.6%</td>
</tr>
<tr>
<td>Expert</td>
<td>58.1%</td>
<td>48.2%</td>
<td>42.6%</td>
<td>49.1%</td>
</tr>
<tr>
<td>Research Assistant</td>
<td>45.8%</td>
<td>60.5%</td>
<td>38.0%</td>
<td>49.0%</td>
</tr>
</tbody>
</table>

Sources: created by compiling ÖSYM periodicals (http://www.osym.gov.tr/belge/1-128/sureli-yayinlar.html) and the YÖK higher education statistics (https://istatistik.yok.gov.tr/). Private vocational schools are kept out of statistics.

Table 2 shows that compared to public universities, private universities have higher ratios of women in academic staff. This is directly related to increasing number of private universities, the fees, employment strategies of the universities, qualities and quantities of the field of the position. On the other hand, just like it was in the public universities, it should be noted that in private universities too, as we go higher on the staff status women's representation gets lower. Also in the foundation universities, the least representation is in the professor staff and the most representative rate seems to be in the expert and research assistant staff.
Figure 1. Percentages of men and women in the academic staff for the 2014-2015 academic year

Source: It was created by compiling YÖK Statistics of Higher Education (https://istatistik.yok.gov.tr/)

As seen in the Figure 1, it is found that in all academic staff of 2014-2015 year, female ratio is lower than male ratio. The only female ratios that were close to or equal to the male ratio were in expert or research assistant status, and in the other titles, the difference keeps getting bigger. It is possible to say that as we go higher in the hierarchy the structure that is based on gender equality gets weaker and the process works against women. Even though numbers are very close in expert or research assistant staff, as we go higher in the hierarchy this difference gets bigger, and the reason for that is because of the male hegemony women cannot progress in their academic career, despite that there is no laws against it. This trend towards the masculinity has prevented women’s right to get higher statue positions. This has prevented the right to settle in the masculine trend women’s top team. Surely not only between traditional masculine atmosphere at the academy staff are located in the same team for the same management, even serving as individual men and women may show the effect even sexist. When a male academician is a head of department or a rector, he is seen as “power and prestige” oriented, and his female counterpart is seen as “bureaucracy and service” oriented (Friedman, 2011).

Table 3. Percentage of Female Students by Education Institutions

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Associate</td>
<td>43.1%</td>
<td>46.9%</td>
<td>47.2%</td>
</tr>
<tr>
<td>License</td>
<td>43.6%</td>
<td>44.6%</td>
<td>45.7%</td>
</tr>
<tr>
<td>Master</td>
<td>42.8%</td>
<td>46.5%</td>
<td>41.3%</td>
</tr>
<tr>
<td>Doctorate</td>
<td>39.9%</td>
<td>43.6%</td>
<td>41.7%</td>
</tr>
<tr>
<td>Open Education</td>
<td>44.3%</td>
<td>45.1%</td>
<td>46.4%</td>
</tr>
<tr>
<td>Secondary</td>
<td>36.4%</td>
<td>40.2%</td>
<td>40.4%</td>
</tr>
</tbody>
</table>

Sources: It was created by compiling ÖSYM periodicals (http://www.osym.gov.tr/belge/1-128/sureli-yayinlar.html) and the YÖK higher education statistics (https://istatistik.yok.gov.tr/).

* Distant education percentage is calculated as undergraduate distance education and vocational distant education degree.

According to Table 3, in the years 2005, 2010 and 2015 distance education and vocational schools are the levels where the women are most represented, and evening education level is where they are the least represented. This case is consistent with TÜSİAD (2000), TÜSİAD & KAĞİDER (2008) reports. The most important reasons why the women are less represented in the evening education are because of late class hours, it is socially inappropriate for women to go to school in the evening hours and evening schools are more costly in terms of tuition. The high presence of women representation at the highest distant education and vocational schools could be explained by the high presence of women who cannot reach the higher educations socio-economic levels. Moreover, according to Suğur and Gönç-Şavran (2006), some of the female students in distant education chose their school willingly but some of them chose it because of mandatory reasons, such as financial difficulties, marriage at early age and gender. In addition, the non-compulsory attendance can be seen as an advantage for the female children in low-income families who have to work.

While vertical differentiation is the wording relating to the representation of the hierarchy in the women academic staff, the horizontal differentiation is described as the difference between men and women in choosing training courses and fields of study in higher education (Eurydice, 2009, p.117). Many European countries are more interested in horizontal than vertical differentiation and it is a case where the choice of work areas and disciplines differs between men and women. It can be summarized as
while women do not favor the fields like engineering and science and men do not favor fields like education, health and art.

Even in the countries where women participation in higher education is increasing rapidly, women still favors different areas than men (TÜSİAD and KAGİDER, 2008). The main underlying reason for this is the traditional perception of identities and gender roles of youth and its parallelism with their orientation tendencies. Stereotyped social norms and expectations intensify this trend. Especially the forcing socially labelled jobs in the form of "women's job" or "men's job" during the transition process from secondary education to higher education as status, financial income and career concepts brings the gender gap in higher education and concentration in specific areas.

Table 4. Percentage of Female Students by Education Field

<table>
<thead>
<tr>
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<th>2004-2005</th>
<th>2009-2010</th>
<th>2012-2013</th>
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<tbody>
<tr>
<td>Language and Literature</td>
<td>65%</td>
<td>64%</td>
<td>63.5%</td>
</tr>
<tr>
<td>Math-Science</td>
<td>44.1%</td>
<td>53.3%</td>
<td>58.1%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>57.8%</td>
<td>55.8%</td>
<td>46.4%</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>46.7%</td>
<td>53.7%</td>
<td>56.5%</td>
</tr>
<tr>
<td>Applied Sciences Social</td>
<td>46.6%</td>
<td>49.5%</td>
<td>52.1%</td>
</tr>
<tr>
<td>Technical Sciences</td>
<td>22.7%</td>
<td>27.8%</td>
<td>29.7%</td>
</tr>
<tr>
<td>Agriculture and Forestry</td>
<td>31.2%</td>
<td>37.4%</td>
<td>39.1%</td>
</tr>
<tr>
<td>Art</td>
<td>52.4%</td>
<td>51.2%</td>
<td>53.6%</td>
</tr>
</tbody>
</table>


The areas that women heavily preferred are shown in Table 4, as language and literature, arts, health sciences and social sciences. The areas that have the lowest proportion of female representation are technical sciences, agriculture and forestry. On the hand, the interest of women in areas like health and language and literature are getting lower and their interest in areas like agriculture and forestry and technical sciences rose comparatively. The data in Table 4 is directly related with society's stereotypes about women. Socially labelled jobs in the form of "women's job" or "women's work" are heavily preferred, as opposed to areas with more masculine tendencies. Depending on gender, midwifery (nursing) provides an acceptable field of work for women, while business, economics and
engineering departments are acceptable as the fields of work for men. This case is not only presented in Turkey but all over the world, as shown in the UNESCO 2009 report, and the rate of women who graduated from engineering departments are shown as 19% in Israel, 26.9% in Russia and 28.4% in Romania. Again in the UNESCO 2009 report, the data shows that the rate of women who graduated from education departments are 88.1% in Israel, 84.2% in Russia, 60.6% in Romania. In Merter's (2007) comparative research about schooling of women between European Union and Asian countries, female students tend not to favor maths and sciences, and favor language and literature, health and social sciences more.

Conclusions

Internalized and stereotyped gender roles that are created in the society, status that is attributed to the women, inadequate laws and regulations, gender gap which is supported by some tiers of society, are individual or corporate pressures against women, together have brought gender inequality which is a versatile and a sociological phenomenon. This research reveals that even though it is relatively declined in the past years, gender inequality still keeps its presence at various areas and higher education in Turkey.

The elimination of gender inequalities based on academic indicators will play a major role in elimination of gender-based segregation occurring in other social political or economical systems. In this sense, to eliminate the inequalities particularly in higher education strong state politics should be developed, public awareness must be created and with a holistic approach, these policies must be supported. Many studies show that education is not always enough in the struggle of women against the socio-cultural structure and indeed there is a pressure and a profile against women in society. Women's free career development should be supported by cleansing the society from stereotypes relating to woman. Social policy mechanisms could be a great aid in bringing this to pass.

To avoid gender gap in field preference in higher education and advancement in academic staff, before everything else, a qualified policy and strategy should be defined and carried out at an individual, corporal and national level. For this purpose, women's studies that are based on positive discrimination should be prepared and supported financially in Turkey. In Sweden, higher education institutions that increase their women student and academic staff numbers receive a 30,000 Euro reward (Merter, 2007, p.242). The financial support that is given to universities when they act according to gender equality should be given not only for student and academic staff numbers, but also for the number of women who joins to scientific research programs. Gender inequality should not only be considered important in academic staff or in education institutions, but also in scientific research. The women in advanced level of scientific research programs in Turkey in the year 2000 is found to be at 36% and in the year 2015, which shows an unacceptable level of gender inequality (EFA, 2003-2004, p.80).

When the areas in higher education that are highly populated by women examined, it is clearly seen that the main policy should be fighting against gender roles and stereotypes. The patriarchal culture, socio-economic conditions and career choices driven by sexism force women to concentrate in certain areas in college level. For this purpose, necessary measures should be taken with gender sensitive laws. The important issue that should not be forgotten here is that in gender equality policies the focus should not be on "women" or "men" concepts, but on balancing the existing inequalities.

To create gender equality in horizontal differentiation, especially in higher education, a dynamic process should be created not only in higher education but a process should be created that also covers the secondary education. Preventing occupational segregation based on gender is directly related to vocational guidance in secondary education. To increase socio-economical, cultural and educational awareness about gender equality, it is necessary to create a nationwide public awareness. It is possible to see that how government policies and dominant family ideologies interact with each other and affect men's and women's careers in many different ways. Even though in its core the pressure and oppression of gender inequality happens implicitly, to overcome it, gender equality should be integrated in education programs. In this context, in a workshop organized by Council of Higher Education called Gender Equality Sensitive University, the result report suggested a compulsory subject to be added to the university curriculum called "National Gender Equality". In the scope of gender equality, the concepts that should be presented to students at an early age should not only presented to them in higher education but also in elementary and secondary level as an interdisciplinary subject.

References


