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## Educational satisfaction and expectation of future careers of the students in the furniture and design education

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### Abstract

In Turkey, the furniture industry, consists of %3 of the country's industry, is an important industrial sector over 7 billions of US dollars in trade with export and import capacity. The use of information and technology within the furniture manufacturing industry is a crucial factor in respect to national and international competition. However, the production of information and technology is more important than usage of these two factors. The existence and usage of these two can only be achieved with professional education and qualified workforce. From the perspective drawn, an investigation into the furniture and design education is worth to carry out in terms of identifying students' educational satisfaction and expectation for future careers concerned with the Turkish furniture industry.

A research questionnaire was designed for this purpose and conducted to 200 students, randomly selected from Furniture and Design Education Departments in 5 different universities. The obtained data was analyzed in *SPSS for Windows* software. The spider method was used for evaluating the data. According to the findings of the research, 40 % of the students want to be professional teacher within the corresponding area, 50 % of them want to have a job within the industry and 10 % of them do not want to continue with this profession. 1643 students enrolled but 1341 students were graduated to be a teacher for the furniture and design departments but only a ratio of 7 % was appointed as a teacher, and remaining ratio of 93 % involuntarily addressed to the furniture industry or other related sectors. With the possible reason of this, the students were not happy (87 %) with the subject area and afraid of future because of not being nominated as a technical teacher by the Ministry of Education. The study ends with the recommendation to improve the furniture and design education in Turkey.

*Keywords:* Technical education; furniture and design education; teacher nominees.

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### 1. The Importance of Professional Education

Across the industrialised and developing world, economic growth is increasingly linked to skill formation to raise labour productivity and average living standards. The twin forces of global integration and technical change have

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increased the focus on and importance of education and training in the competitive process. The role of the education and training system in this process is becoming increasingly important [1].

As O'Dubhslainé (2006) argues; there are two theories that explain the importance of education to the economy: human capital theory and the signalling theory [1]. Human capital theory argues that the accumulation of human capital is an important element of economic growth. In contrast, signalling theory states that the level of education is an indication of behavioural traits that employers are looking for. Human capital theory is an analysis of the relationship between the functions of education and economic growth. Education enables people to develop analytical skills and cognitive abilities. Education teaches students to analyze information and to utilize this acquired knowledge. These skills enable the labourer to increase his productivity in two ways. Firstly, a labourer can use his existing working capital more efficiently. Welch (1970) argues that education increases the worker's speed and quality due to increased knowledge and understanding of the specific tasks within the context of a larger firm structure. In addition the worker makes better decisions about the allocation of resources [2]. Secondly, this acquired knowledge can then be utilized to innovate and to create technological developments. Positive changes in technology improve the production of materials and the communication of information. An educated labour force will be able to adapt to technology change. Therefore this human capital investment will reduce the costs of production and increase firms' production possibilities.

As Stiglitz (1975:283) points out, important information for the economy is the knowledge about "the qualities of factor or a commodity" [3]. Skills required for furniture and design are specific to that industry or even that particular job. Education consists of teaching general cognitive abilities. There is a mismatch between the demand and supply of certain skills. The signalling theory argues that education is a socialization process. Education instils behavioural traits of persistence, punctuality and ability. The usefulness of education to the economy is not the material students learn at school or university. This work simply demonstrates the students' capacity to learn. On the basis of economic development of the countries while educating students, considering the era, society, business life, participation of individuals to the production in order to maintain sustainability of the society, reaching to an economically welfare and security level, and increasing competition power are all important factors to be considered. But, failure of policy makers of Turkey to establish long term policies on high school and university level can be seen particularly in the last 15 years and the failure of giving possibilities to study university degrees for young people cause accumulations for the universities. However, the purpose of government interference in the education market is that there are positive externalities associated with investment in education. The government should consider all benefits to make a Pareto optimal allocation of investment in education [4]. This situation is directly being reflected to the industrial production and economic development of the county. While today's world is both economically and socially rapidly changing, richness of countries are related with the richness of their natural resources as well as human resources and how far this richness is educated.

In this context, to consider and see 'furniture and design education' as only transferring skills, artefacts, or practice works as the mastership of the profession does not reach the understanding level of 21st century for education. During the last century, training within the many developed countries, especially professional and technical training, were planned, assessed, supervised and realized so as to grow human labour with multiple skills for increasing competition powers of the countries [5].

Scientific researches related with training, teaching – learning processes and sample models on training are performed. Majority of these studies are directly or indirectly related with teachers or system [6 - 8]. Impact of teacher on teaching and learning processes is multidirectional. Teacher, an individual of both arranging training environment and scheduling as well as realizing training process and supporting mental, emotional and social development of the student, is an important element for maintaining effectiveness of teaching process. Lots of studies and researches are implemented about qualifications of the teacher, maintaining effective teaching [9-14]. There are also very valuable studies on the importance of education for the economy and economic development of the countries [1-3 and 15-20]. However, with specific reference to Turkey, few studies were found in furniture and design education e.g. "A General Overview to Historical Development of Furniture Training" [21] and "Impact of Student Profile on Furniture and Design Education at the Technical Education Faculty" [22].

In connection with this, worldwide furniture trade, foreseen to be 1 trillion USD in 2020, was subjected to a trade of 300 billion dollars on 2007. From this trade, Turkey benefited with over 1 billion dollar export and 700 million dollars import. Turkey's biggest obstacle of this trade to increase the export capacity is seen the lack of qualified labour [23-24].

Receiving a share from global furniture trading can only be realized by qualified manpower with multiple skills and answers to the expectations of 21<sup>st</sup> century. Therefore, it is interesting to find out how the furniture education system in Turkey. This research particularly aims to find out opinions of students about their education and expectation for future careers.

## 2. Material & Method

### 2.1. Space and sampling

Study scope of this research was composed of 200 randomly selected students, enrolled in 2007 – 2008 academic programs of the department of Furniture and Design Education, the Technical Education Faculty, at the universities of Gazi, Ankara, Muğla, Düzce, Kütahya and Karabük in Turkey. In the selected departments, programs of Doctor of Philosophy, Master of Science and Bachelor of Science were taught in the Gazi University; Master of Science and Bachelor of Science Programs in Muğla, Kütahya and Karabük Universities. The rest has only Bachelor programs. Although the main aim of Furniture and Design Department is to train teachers to vocational high schools, the department in the last 10 years has shifted its direction to the furniture industry and interior design.

### 2.2. 2.2. Data collection and analysis

In order to reach to the aim of this research, a research questionnaire was used among descriptive research methods. Firstly questionnaire questions were designed and a pilot questionnaire was conducted to 10 respondents. After that, corrections were redesigned in accordance with the opinions of students and experts. The final format of the questionnaire, composed of questions with multiple choices, was applied. In compliance with the aim of the study, obtained data were grouped by the help of *Spider method* [25], and transferred into tables on *SPSS for Windows* software. A final discussion of the analyzed data and conclusion with recommendation is given in the final section.

## 3. Findings

The number of students, enrolled to the Furniture and Design Education Departments in 2003 and 2008 academic years, are given in Table 1.

Table 1. Student Enrolment in 2003 – 2008

Years	Gazi I.Ö/II.Ö	Düzce I.Ö/II.Ö	Karabük (Karaelmas) I.Ö/II.Ö	Dumlupınar I.Ö/II.Ö	Muğla I.Ö/II.Ö	Total I.Ö/II.Ö	General Total
2008	52 + 52	41	57 + 57	52	62	262 + 109	<b>371</b>
2007	31 + 31	31	31	41	52	186 + 31	<b>217</b>
2006	43 + 31	31	31	41	52	198 + 31	<b>229</b>
2005	49 + 31	31	31	41 + 41	52	204 + 72	<b>276</b>
2004	49 + 31	31	31	41 + 41	52	204 + 72	<b>276</b>
2003	47 + 31	31	31	41 + 41	52	202 + 72	<b>274</b>
<b>Toplam</b>	<b>271 + 207</b>	<b>196</b>	<b>212 + 57</b>	<b>257 + 123</b>	<b>322</b>	1256 + 387	<b>1643</b>

I.Ö: Day Teaching Program, II.Ö: Night Teaching Program  
YOK [26]

1643 students were enrolled to these departments between the academic years of 2003 – 2008, an approximate number of 275 students were accepted in the academic years of 2003 – 2005. The student acceptance in 2006 and 2007 was reduced to 225 but in 2008, the number sharply increased to 371.

The sex genders of participated students are given on Table 2.1.

Table 2. Sex gender

	Muğla	Düzce	D.pınar	Karabük	Gazi	Toplam (F)	Toplam (%)
Male	40	38	40	40	36	194	97
Female	0	2	0	0	4	6	3
Total	40	40	40	40	40	200	100

High ratio difference between female and male students draws attention while the number of female students is very low with 3 %. It is possible to say that the department is not populated for girls and it is still thought as a department for carpentry or wood works. Number of reasons can be underlined for this as discussed in the conclusion section.

Table 3. The high school type the students come from to furniture and design department

High School Type	Muğla	Düzce	D.pınar	Karabük	Gazi	Toplam (F)	Toplam (%)
Industrial Vocational	37	38	28	35	30	168	81
Technical	1	0	2	1	6	10	5
General	0	1	5	2	0	8	4
Anatolian Technical	0	0	3	0	0	3	2
Religion schools	0	1	1	0	1	3	2
Health high schools	0	0	1	0	1	2	2
Anatolian vocational	0	0	0	1	2	3	2
Others	2	0	0	1	0	3	2
<b>Toplam</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>200</b>	<b>100</b>

Although majority of the students enrolled to the programs from the industrial vocational high schools, there are also students from different types of high schools e.g. health high schools, religion schools which consist of the minor part. The majority of the students come from industrial vocational high schools. The reason might be directly connected to the central examination system of Higher Education Institute (YÖK) as discussed in the conclusion section.

Preference reasons of students for furniture and design area are given in Table 4.

Table 4. Student Preferences to study furniture and design

	Muğla	Düzce	D.pınar	Karabük	Gazi	Total (F)	Total (%)
Family force	2	6	6	3	5	22	11
Compulsory preference	11	7	9	7	8	42	21
Close to the hometown	0	3	2	1	0	6	3
Family participants in the sector	2	6	1	3	0	12	6
Random	3	3	4	3	2	15	8
Get a profession	8	4	5	6	10	33	17
To be a teacher	14	11	13	17	15	70	34
<b>Toplam</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>200</b>	<b>100</b>

34 % of students preferred to be a teacher in the furniture and design departments in vocational high schools or colleges. 21% of the students were obligated to choose this department because of the education they had before the university. Another interesting result was the family force to the student to choose this department. Accidental selection (8%) was also made. According to the results, a failure or lack of guiding to the students about the professions after secondary or high schools can be seen. This can end with non-volunteer profession and reflect to many areas including self happiness to general welfare of people.

Plans of students for employment after their graduations are listed in Table 5.

Table 5. Working areas after graduations

	Muğla	Düzce	D.pınar	Karabük	Gazi	Total (F)	Total (%)
Teacher in furniture and design	28	13	15	19	6	81	40
Furniture and Design Industry	10	22	20	16	32	100	50
Not want to this profession	2	5	5	5	2	19	10
<b>Toplam</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>200</b>	<b>100</b>

According to Table 5, 40 % of the students aim to be a department teacher when they graduate, 50 % of them want to work in the furniture industry or other related areas and 10 % of them do not want to continue the subject. Although the 40% of the students want to work as a teacher; the Ministry of National Education appoints a very limited number of the graduates to be a teacher as seen in Table 6.

Table 6.

2002–2008 Teachers Appoints in Furniture and Design  
Number of

Years	Graduates		Appointed teachers	
	F	%	F	%
	2002	172		0
2003	225		2	
2004	272		20	
2005	204		50	
2006	265		21	
2007	233		0	
2008	-		13	
<b>Total</b>	<b>1371</b>	<b>93</b>	<b>106</b>	<b>7</b>

MEB [27]

According to Table 6, although 1371 students were graduated from Furniture and Design Education programs, only a ratio of 7 % was appointed as teachers, and remaining ratio of 93 % addressed to the furniture industry or other sectors.

According to Table 7, when hesitations of students taken into account, the most important results were the low appointments of the teacher by the Ministry of National Education. The students emphasized that they were trained to be a teacher, but they were worried about future due to reduce on appointments. Another important worry of them was to fail finding a job or to be unsuccessful in the found job in the furniture sector. The students mentioned that the given education was at the back of the actual industry and was not enough to adapt to the rapidly developing sector. According to the students, the teaching program had few lecture addressing to the needs of the furniture industry, and this increases more worries about the adaptation and integration to the industry. It can be said that the insufficiency of the departments in guiding, and low relations with the industry increase the worries of the students about the furniture industry.

Educational satisfaction statuses of the students from their departments are given in Table 8.

Tablo 8. Student Happiness

	Muğla	Düzce	D.pınar	Karabük	Gazi	Toplam (F)	Toplam (%)
Evet	5	3	6	4	7	25	13
Hayır	35	37	34	36	33	175	87
<b>Toplam</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>200</b>	<b>100</b>

87 % of students stated that they were not happy in the furniture and design departments. Several factors can be listed related with this non-satisfaction ratio but it is thought that statuses of students, who came here with the aim of being a teacher but not appointed as teachers, increase this non-satisfaction ratio. In case of failure to be appointed as a teacher, determinations related with changing curriculums and restructuring for removal of current non-satisfaction are given on Table 9.

Table 9. Insights to increase the happiness of the students

Student opinions	(%)
Lectures should be selected	7
Lectures for computer (CAD, CAM) and Foreign language should be increased	30
Updated lectures should be given in accordance with the furniture industry	20
Update lecture material, workshops and classroom	4
Improvement of physical conditions	4
Increase the dialogues between students and lecturers	2
Accreditation of the lectures	10
Students should be directed to the furniture industry	23

According to Table 9, the most emphasized issue was to increase the computer use, computer aided programs for design and manufacture, and foreign language education. It is seen that they advocate the importance of foreign language and computer in order to adapt and follow the knowledge and technology with the world, which becomes universal. Another issue was to put new lectures addressing to the furniture industry, and to increase the relation with the related industries. According to the fact, it can be said that students are willing to prepare for the furniture industry and want their educational programs are redesigned due to reduction of teacher appointments. Another interesting evaluation was that course intensity within the curriculum should be reduced, and they should turn into selective courses.

#### 4. Conclusions, Discussions and Suggestions

Significant numbers of students are enrolled to these departments ranging from industrial vocational high schools to health schools, and religion schools which are the minor part in the academic years of 2003 – 2008. The student acceptance in 2006 and 2007 was reduced to 225 but in 2008, the number was sharply increased to 373. This is directly connected to the central examination system of Higher Education Institute (YÖK) because the numbers of the students to study in universities are not decided by the related departments, which are forced to accept with the decision of the Higher Education Institute. This is an important insight that causes problems and directly affects the quality of education and training. In this case, a freedom or an alternative way of the student acceptance might be given for these departments, where theoretical and practical courses are taught in connection with furniture production.

In respect to gender differences, high ratio difference was found between female and male students. A number of reasons can be said: but the most important criteria are that the department of furniture and design is not commonly populated or known in the public. Due to generally being from families with low income levels [22], the subject of furniture and design is preferred and seen as a guaranteed profession by the students to be a technical teacher in the vocational schools. 34 % of the students preferred to be a teacher, 21% of the students were obligated to choose this department because of the education they had before the university. Another interesting result was the family force to the student to choose this department. Accidental selection (8%) was also made. As a result of these findings, it is possible to say that an accidental or unwillingly decision was taken to study in the department of furniture and design. This ends up with the high unhappiness of the students (87%). It is also possible to say that there is a failure or lack of guiding services to the students about the professions after secondary or high school education.

In this process, optimal use of self potential by the individual, selecting the most appropriate profession and having universal level training of that profession is very important. While modern training comprehension aims to let individuals to gain productive qualifications, open for development, it also attaches importance to selection of appropriate profession [28 and 29]. During improvement of developed states, training systems have effective functions. These systems are based on “appropriate profession selection” principle, supplying productive training and enabling individuals to identify their interests and skills. But, profession selection resolution of the individual is not being made immediately, and being realized with the professional development studies with commencing from basic training level [30]. In connection with this importance degree, revealing and developing corresponding skills are important in connection with individual and society.

Acceleration of liberalization trends of globalization on 21st century, increasing speed of free circulation of capital, liberalization of trading and diversifications on production and service sectors as a result of seeking international standards within product specifications are causing to the need for development of qualified technical

staff labour skills, required by furniture industry. With globalization causing the closure of many large and medium-sized European and North American furniture factories, this focus on "academic" curriculum makes little sense in design education, particularly for domestic furniture design. Many smaller furniture producers, recognizing the need to adjust to the globalized marketplace, use CNC production technology, develop designs that can be "mass customized" and ship faster than their offshore competitors. These manufacturers need graduates with practical CNC experience, knowledge of new materials, sensitivity to the needs of today's consumer and respect for the environment. Many post-secondary design programs lack the required direction and equipment (literally in some cases) to produce competent designers needed by today's industry.

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