COMPARATIVE ANALYSIS OF MASTER OF INDUSTRIAL DESIGN EDUCATION IN TURKEY

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ABSTRACT

COMPARATIVE ANALYSIS OF MASTER OF INDUSTRIAL DESIGN EDUCATION IN TURKEY

This thesis focused on the master's program in industrial design, which is research and practice oriented in the light of current themes and design principals. It argued that a master's degree in industrial design would help graduates specialize in the related field and improve their skills. Therefore, this study consists of fundamental components about master's studies in industrial design in turkey such as, existing circumstances of master's degree, defining its problems and requirements, and resolution advisories to education.

Seven universities offer a master's degree in the field of industrial design in Turkey. In the study, comparative analysis of these programs is conducted on their current education system and two survey studies are realized among the academics of these universities, to examine their opinions.

In the field study, the increase number of department facilities was underlined as one of the positive developments whereas problems concerning the academic staff of master's programs came into prominence as the most important weaknesses. In addition, the required improvements of YOK criteria for the discipline were also found a critical situation for the future of programs.

Keywords: Industrial Design Education, Master's Degree Program, Comparative Analysis of Education.

ÖZET

TÜRKİYE'DE ENDÜSTRİ ÜRÜNLERİ TASARIMI ALANINDA YÜKSEK LİSANS EĞİTİMİNİN KARŞILAŞTIRMALI ANALİZİ

Güncel temalar ve tasarım ilkeleri ışığında araştırma ve/veya uygulama odaklı endüstri ürünleri tasarımı yüksek lisans programı, bölüm mezunlarının ilgili alanda uzmanlaşmaları, bilgi ve becerilerinin geliştirmeleri açısından, çalışmanın temelini oluşturmaktadır. Buna bağlı olarak, bu çalışma mevcut durumun incelenerek eğitimin güçlü ve zayıf yönlerini belirlenmek ve yeni gelecek önerileri getirmek gibi öğelerden oluşmaktadır.

Çalışma kapsamında, Türkiye'de endüstri ürünleri tasarımı yüksek lisans eğitimi veren yedi üniversitenin mevcut eğitim sistemleri karşılaştırmalı analiz yöntemi ile incelenmiştir. Ayrıca, konuyla ilgili olarak yürütülen alan araştırmasında, bu üniversitelerde görev alan akademisyenlerin görüşleri uygulanan iki anket çalışması ile değerlendirilmiştir.

Alan çalışmasında, yüksek lisans programlardaki akademik kadro sıkıntıları en önemli zayıf yön olarak ön plana çıkarken, bölüm olanaklarındaki artış da olumlu gelişmelerden biri olarak vurgulandı. Ayrıca, YÖK'ün disipline özgü değerlendirme ölçütlerinde gerekli iyileştirilmelerin yapılması programların geleceği açısından önemli bir durum olduğu anlaşıldı.

Anahtar Kelimeler: Endüstri Ürünleri Tasarımı Eğitimi, Yüksek Lisans Programı, Eğitiminin Karşılaştırmalı Analizi.

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INTRODUCTION

> Industrial design, as an integrated profession, covers a wide range, including engineering (technology, techniques, material and processing), ergonomics (operation, safety, usability, sensation), business (marketing, management, planning, corporate identity), aesthetics (form, visualization, style), and even involving social, environmental, and cultural issues. (Yang, et al. 2005, 155)

Industrial design, as it incorporates interdisciplinary characteristics, plays a crucial role in sustaining and reforming nations, societies, and industries. From this standpoint, it can be said that peculiar characteristics of ID are mostly associated with or the result of the ID education, which is a more complicated phenomenon in the periphery than it is in the center. Design education is one of the areas in which one can observe the convergence of concepts, methods, and technologies originating from the center, with the particularities of each peripheral country like Turkey where local dynamics can be crucially important (Er 2001, 1).

Taking into consideration the early years of ID education in Turkey, it is not possible to say that ties with the industry were strong. In fact, ID, as a profession, was not well known in Turkey. It was in the mid 1990s, particularly following the emergence of liberal economy, customs union, laws, and legislations concerning intellectual property rights in Turkey that educational institutions began to establish real ties with the industry. The profession has recently begun to be recognized both by the industry and the public. Industrial designers in Turkey are now employed in large, medium, and small-sized enterprises. Some of them run their own design consultancy firms developing projects for various industries. Thus, it is important to provide ID education based on the true local needs of the Turkish industry, as well as the latest developments and trends in the world so as to bring innovation through design, and be able to compete with many local and foreign firms (Evyapan, et al. 2005, 138).

Incorporating the notion of ID into a firm undoubtedly calls for a strategic plan and series of actions to be taken. For instance, managers, marketing people and engineers should be equipped with the notion of ID, and designers' qualifications should be improved through education. As Asatekin et al. point out, "such a dual action

maintains interactivity between distinct phases of the product development process such as design, production, and marketing and improves the communication link between the team members in a design unit and between different units in an organization" (Asatekin, et al. 1997, 3).

In line with industry's demands, a higher level of ID educational program, which includes graduates from both ID and interdisciplinary backgrounds, is necessary since it provides graduates with higher qualifications which help them respond to the emerging requirements in the industry.

1.1. Significance of the Subject

Conducting a research study on the subject of "Master's Degree Education in ID in Turkey" is essential for several reasons. To begin with, the relevant literature on the subject is almost non-existent. Although the importance of master's education in ID is widely acknowledged, it has not been researched or questioned satisfactorily, especially in Turkey.

The literature review shows that very few studies in master's education in ID have been carried out in Turkey. The dissertations, articles and academic studies are concerned with the undergraduate degree in ID, curriculum models, history, industry-university collaboration, design research, doctoral education etc. but not directly on master's education. Therefore, a comprehensive research into the subject is required.

On the other hand, according to the criteria of YOK, new programs in ID will be designed under the newly developed and the existing faculties of architecture. For this reason, the opening of these new programs becomes a threat to the quality of education. As a solution to the problem, Ertan suggests, the master's programs that are proposed to be opened in 'peripheral' countries should be listed in a certain order of priority, which should be determined in accordance with the geographic distribution of the industry in Anatolia (the metropolitan regions; namely, Istanbul, Izmir, Adana, Ankara and the newly developed industrial cities; namely, Kayseri, Gaziantep, Konya, Samsun) as well as the universities with the faculties of architecture/engineering, fine arts, and design located in industrial centers.

The proposed order regarding the opening of the departments of ID is listed as follows:

1. Gebze Institute of Technology or Uludag University,
2. Mersin, Cukurova, or Mustafa Kemal University,
3. Osman Gazi University,
4. Erciyes University,
5. Selcuk University,
6. On Dokuz Mayis University.

Therefore, new fields of study based on the production of industrial areas will be formed with the help of these new programs.

In conclusion, new discussions and studies conducted on master's education in industrial design will give way to new formations and developments (Ertan 2006, 92).

1.2. Aims and Route of the Study

The study aims:

- Primarily to create a source that may guide the institutions/universities that will develop a master's program on ID,
- To provide a perspective both for self-evaluation to existing programs and for further studies in the field ,
- To create a discussion topic in its own right at further design meetings and researches in Turkey.

Thus, this study has three main routes:

1. A situation analysis will be conducted in order to point out the different and similar aspects of the current education system embraced by the master's programs in ID in Turkey. The comparative study will be conducted on the topics of curricula, missions and visions, institutional structures, academic staff, students and master's theses.
2. A two-phased survey study will be carried out to investigate the ways in which academics perceive the master's study in ID and the way it should be examined in the future.
3. The results obtained from the surveys and situation analysis will be gathered, and a comparative evaluation for further studies will be conducted in accordance with those results.

1.3. Boundaries of the Study

In the line with the information gathered from the situation analysis, master's degree in ID is offered in Anadolu University (AU), Istanbul Technical University (ITU), Izmir Institute of Technology (IYTE), Marmara University (MU), Middle East Technical University (METU), and Mimar Sinan Fine Art University (MSFAU).

In addition, in Izmir University of Economics (IUE), there is a master's degree program in Design Studies conducted under the institute of social sciences. This program differs from other ID master's programs by its educational structure (the teaching staff of this program covers all design disciplines). Yet, this program is also included in this study because there is an undergraduate program in ID in the university and the education given constitutes the design disciplines. The program aims to provide interaction between the design disciplines, generate creative results from the interactions between them, enable students to deal with 'design' with a holistic approach, and help them become acquainted with different topics, views, size, scope and materials.

There is a master's program in "Production and Design Methods" in Gebze Institute of Technology, which is run by the faculty of engineering and industrial technology education. The graduate program in Gazi University, on the other hand, is run by the faculty of industrial arts education. However, both programs are considered outside the scope of the study because they are based on heavy engineering techniques weighted in terms of both their institutional structure and the education provided. This might be regarded as a limit of the study.

Another point which could be regarded as an important boundary of the study is to do with the selection of the academics to be consulted of their opinions, as the sources/prints concerned with the subject are limited and/or not recorded. For this reason, academics who are /have been in administrative positions, those who are specialized in the field of ID education and especially those who work as lecturers are selected for the interview.

1.4. Research Methodology

As mentioned before, the subject of the thesis would create a source both for the existing institutions/universities to evaluate themselves and the institutions/universities that will develop a master's program in ID in Turkey.

Qualitative research on the master's degree in ID education in Turkey is carried out through the following steps:

1. Deciding on qualitative research (defining a research problem and selecting a case, and literature reviews of the study, type and use of qualitative research, the survey study approach to research stated problems),
2. Composing qualitative data collection (conducting effective interviews, being a careful observer, and bringing statistical data from documents),
3. Analyzing and reporting survey study data (to analyze qualitative data, data analysis towards reliability and ethics in the survey study and writing the survey study report).
4. A comparative analysis of all the data obtained from the study.

Consequently, the structure of the methodology, being a crucial part of the study, is determined and a methodological chart is shown in Figure 1.1

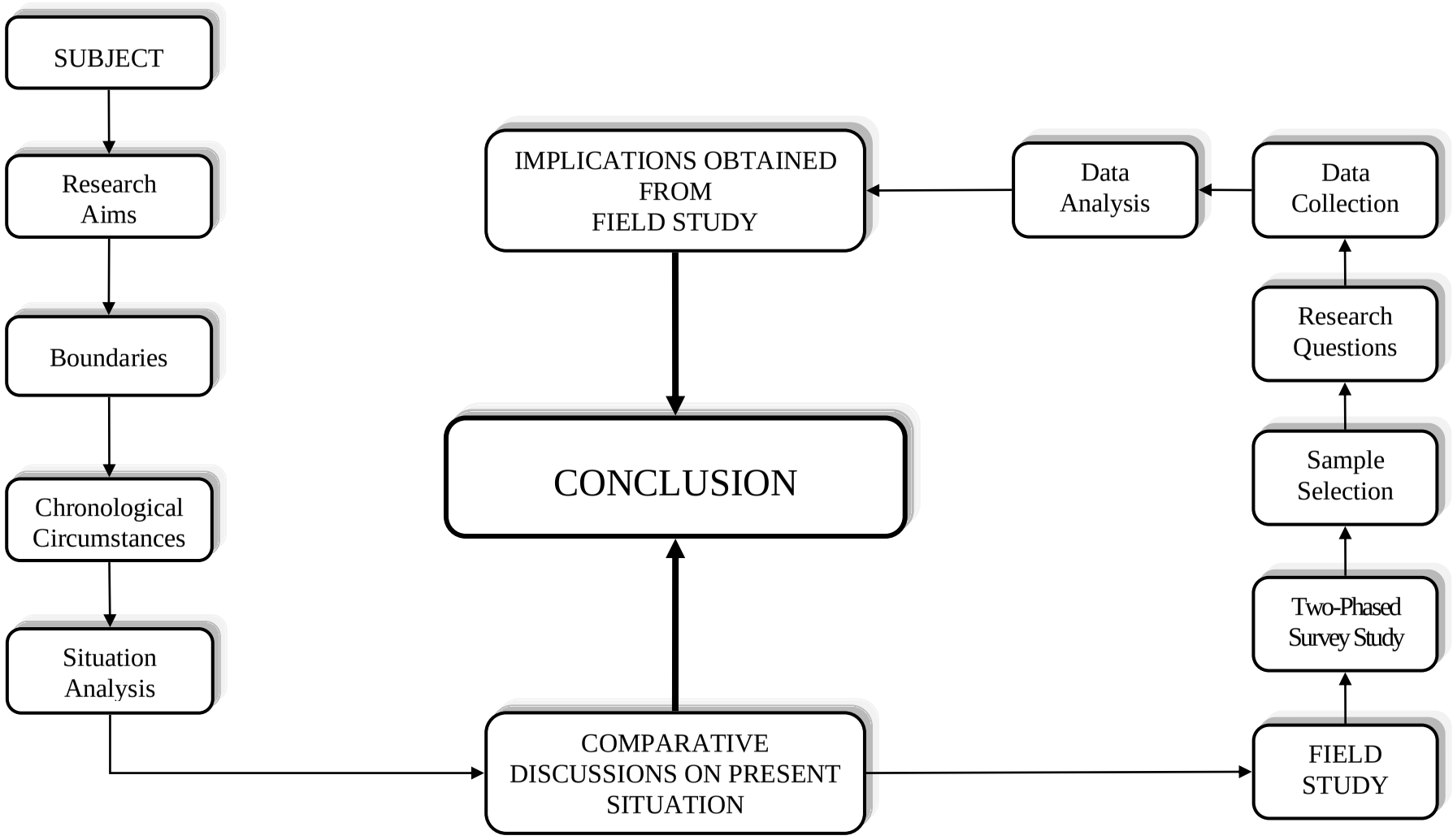


Figure 1.1. Methodological structure of the study.

1.5. Overall Design of the Field Study

As the relevant literature on "master's education in ID in Turkey" is limited, Creswell (1994) suggests, "One of the chief reasons for conducting a qualitative study is that the study is exploratory" and he also highlights the point that "not much has been written about the topic or population being studied, and the researcher seeks to listen to informants and to build a picture based on their ideas". In accordance with this purpose, a two-phased survey study was carried out in order to achieve the objectives of the study. This study was conducted nationwide with academics who work as lecturers in ID master's programs.

The first survey is based on the answers of a survey, which consists of open-ended questions about the evaluation of the past, present and future of the ID master's degree education in Turkey. The answers of the respondents to this survey were obtained through face-to-face interviews and e-mails.

On the other hand, the second survey focused on the ideas obtained from the first one; that is, it focused on the assessment of their attitudes concerning the subject matter. The attitude scale called "Likert" that was used in the survey is one that measures attitudes in the easiest and the most direct way (Kağıtçıbaşı 1999, 136). This kind of scales helps researchers to determine the ideas of respondents as they help figure out the respondents' level of agreement to a statement. In this study, what the respondents were asked to do was to rate the statements on a 5 to 1 (absolutely agree to absolutely disagree) response scale. Below is the scale:

(5): Absolutely Agree

(4): Agree

(3): Not sure

(2): Disagree

(1): Absolutely Disagree

1.5.1. Population and Sample

In Turkey, there are seven universities that offer master's degree programs and according to the information gathered from the related departments of those

universities, there is a total number of thirty-eight full-time academics that teach in the master's programs in ID.

However, to obtain the most efficient and proper results, the sample for the first survey that was asked to answer the questions in the survey was chosen by several criteria. At least one academic was chosen from each university and it was decided amongst the academics that are specialized in the ID education research area, have publications in this area or who work in administrative positions in their departments. Seventeen academics were asked for an interview or/and asked to fill out the survey, but only twelve academics completed it. Five of the academics working in the administrative positions and nine of them with publications in ID education research area reveal the strength of the sampling.

On the other hand, a total number of thirty-one academics took part in the second survey study. This group of thirty-one people consisted of the respondents to the first survey study, full-time faculty members teaching in the master's program in industrial design with an academic degree (assistant professors, associate professor, and professors). However, instructors with a publication or a doctoral dissertation were also included in the group. A survey study was conducted with sixteen of the twenty-seven academics, who were either sent a survey via e-mail or asked for a face-to-face interview. One strong aspect of this second survey study is that another survey was carried out with nine of the twelve academics, which helped them to re-assess the answers they gave to the questions of the first survey. In this way, a kind of 'unanimity' was achieved.

1.5.2. Layout of the Surveys

The first survey that consists of eighteen open-ended questions was conducted to gather the necessary information. This survey consists of two sections. The first section has thirteen open-ended questions that seek to gather information about the academics and the demographic structures of the universities that the academics work in. The second section, on the other hand, asks for the respondents' opinions and suggestions about the master's degree education in ID nationwide. (see APPENDIX A and B)

The first section of this survey asks for the academics' undergraduate and graduate education, their position in the department, whether they have any publications

in ID education research area, their relations with the industry and their departments' master's program foundation date, student selection criteria, alumni profile, philosophy of education and the specialization areas of the program. The questions in the second section, on the other hand, ask about the advantages of the master's degree education over undergraduate education, evaluation of the past and present of the master's degree education, the strengths and weaknesses of today's education and academics' views about the future. This section consists of four fundamental questions and an extra question for the respondents to indicate the missing elements in the survey, thereby amounting to a total number of five open-ended questions.

The second survey, which serves as a sequel to the first one and aims to determine the common views of respondents, is comprised of two sections (see APPENDIX C and D). In order to reveal the demographic structure concerning the academics and their universities, the respondents were asked to assess the statements under the same subcategories as in the first survey, but this time they were supposed to rate the statements on a 5 to 1 (absolutely agree to absolutely disagree) response scale. The second section of this survey measures the respondents' the level of agreement concerning the fifty-six statements obtained from the answers given by the respondents of the first survey according to the Likert scale. These fifty-six statements are divided into four sub-categories; namely, the advantages of master's study over undergraduate study in ID, the weaknesses of master's programs in ID in Turkey, the strengths of the programs, and finally, their suggestions concerning the future of the programs. The respondents were also asked to make additional comments/suggestions about the program if they had any.

1.5.3. Data Collection

In order to get qualitative information for the first survey, interview requests were e-mailed to seventeen academics before the survey forms were sent to them. According to the answers given, interview dates were arranged according to the academics' schedules. Because of the constraint of time and some universities being in different cities, some of the survey forms were directly sent to the universities. Regarding the timeline of the process of the second survey study, request e-mails were sent at the beginning of April 2008. Within a week, between April 14 and April 23,

according to the answers received, face-to-face interviews were conducted with seven academics. On May 27, 2008, the remaining answers to the survey were received from the respondents.

Table 1.1. Distribution of respondents concerning the applied surveys.

SURVEYS	SENT	REPLIED	INTERVIEWS	SENT VIA EMAIL
1st	17	12/17 (70 %)	7/12 (60 %)	5/12 (40 %)
2nd	27	16/27 (60 %)	7/16 (40 %)	9/16 (60 %)

In the second survey study that aimed to determine statistical opinions, the surveys were e-mailed directly to academics, who were asked to fill them out and send them back via e-mail or fax. There were also some academics who could not be contacted via e-mail. The solution of this problem was to conduct a face-to-face interview with them in order to find out about their opinions. (Seven academics took part in such an interview). The surveys were sent to twenty-seven academics, which were selected through e-mail on September 15, 2008. Afterwards, between September 22 and September 26, face-to-face interviews were conducted with seven academics. On September 30, 2008, the remaining answers to the survey questions were received from the respondents.

Another point that needs to be indicated about this survey study is that seven academics in MSFAU could not take part in it although they were sent e-mails and/or asked for a face-to-face interview. On the other hand, the data analysis was completed in accordance with the answers given by at least one academic from six universities, amounting to the total number of sixteen academics.

1.5.4. Data Analysis

Data gathered from the first survey were initially grouped under the main categories, and then categorized according to their sub-categories (concerning the academic staff and the department facilities, the curriculum, the quality and quantity of the students, industry-university collaboration). These sub-categories were of crucial importance to the researcher as they helped evaluate a wide scope of the ID master's degree education and achieve the results. Since every question aims for a different topic, common and opposite statements were determined among the answers given. These statements were then rated among themselves and a spectrum in results was provided.

Since the first section of the survey includes a demographic research, the results were evaluated by comparative analysis on the universities and through illustrations with tables.

Since most of the answered surveys were conducted by interviews, the researcher eliminated those that fall outside the scope of the study in the second section of the survey. In addition, again in the second section, the second (comparison of the past and present situations of the master's education) and third (strong and weak aspects of it) questions were gathered and then, the results were evaluated under the categories of 'weaknesses' and 'strengths'.

The evaluations of the statements obtained from the first survey under the same sections were made in the second survey. Collected data were analyzed by using simple statistics: means, standard deviations, medians, and modes. In addition, Histogram charts, which indicate the frequency and cumulative distribution of the each section, were also used. Moreover, the separate graphics were prepared in order to understand whether there were any differences or similarities among answers concerning the respondents' academic titles, their universities, and if they had publication or not in the field of industrial design education.

1.6. Structure of the Thesis

This chapter brought up and briefly discussed the necessity of pursuing such a study. The aim, limits, research methodology, design of the field and structure of the overall study were presented.

The second chapter will focus on the current education systems of universities offering a master's degree in ID in Turkey. An overview of chronological circumstances acquired in ID education will also be mentioned in this chapter.

The results obtained from the two surveys comprising the subcategories of comparative results of universities and respondent academics, weaknesses and strengths of educational system in master of ID education will be presented in Chapter 3, together with future predictions and suggestions of the respondents.

In conclusion, all the findings of the comparative analysis and the surveys relating to the stated objectives will be evaluated and suggestions of the researcher for further studies will also take place in Chapter 4.

CHAPTER 2

A REVIEW OF MASTER'S DEGREE EDUCATION IN INDUSTRIAL DESIGN IN TURKEY

2.1. An Overview of ID Education in Turkey

The foundation of Istanbul State Academy of Fine Arts (IDGSA) ID Department (that took place in the early 70s) could be regarded as the starting point of industrial design education in Turkey. Thus, it could be said that ID education has a 35-year history. However, this first education program is mostly identical to the education models in the West. In those years, Turkish industry was supported by foreign development policies and it was thought that the designers that were trained in accordance with these western programs could generate the designs that the industry could produce in time. Shortly, in line with this approach, it was planned that in order to build a modern industry, big companies were required and within this context, design and innovation needs could only be improved by industrialization.

Beginning from the first program, inaccurate approaches such as misplaced government policies and lack of support for product design by the industry caused ID education fail to improve. Yet, after the Customs Union Agreement signed in the mid 90s, firms realized that competition was becoming more intense, and educational institutions were involved in serious collaborations with the industry. (Çırpanlı and Er 2006, 45)

Especially, in the recent years, these tight relationships as well as projects undertaken between undergraduate and graduate programs have increased incrementally. Moreover, firms have begun to take place in exhibitions abroad.

For the last 10 years, ID profession has begun to be recognized as a primary element for all the competitive countries and firms due to its innovative structure in the global market. "Design and innovation economics" replaced "knowledge economics" as a discussion topic. As Er (2005) mentions, "Today, all industrial sectors of Turkey are in need of design, because of the dynamics of the international economics, and

increasing hardships of the global competition. This progress forces Turkey to absorb knowledge and skills that are unacquainted, and to stand as an economic power." Many developing countries like Turkey face this fact unprepared (Er, 2005).

This process cannot be undone and in the 21st century, Turkish industry will continue to improve in terms of design and innovation with the help of the influence of international competition in the global market. Therefore, formations to meet the requirements of the industry will increase in ID graduate programs as well as in undergraduate ones.

2.1.1. A Brief History

The origins of applied arts education dates back to the ceramics, graphics and architectural workshops belonging to the Department of Decoration (Tezyinat), which started education in the 1930s. This department was at the School of Fine Arts (Sanayi-i Nefise Mektebi). It was founded in 1883 in order to keep up with the Industrial Revolution (Er and Korkut 1998, 6).

Therefore, it can be claimed that ID education in Turkey originated from two main focal points. The first point is the two important art schools in Istanbul, the Istanbul State Academy of Fine Arts (IDGSA), whose foundation dates back to "Sanayi-i Nefise Mektebi", and the State School of Applied Fine Arts (DTGSO), where ID education in Turkey formally started in the early 70's. The other one is the official preparations realized through effective collaborations between the USA and Ankara, METU in the late 50's (Er 2000, 123).

In 1969, Istanbul State Academy of Fine Arts (IDGSA) started working for the establishment of the first official department of Industrial Design. In the same year, as the private universities and institutes began to close down in Turkey, IDGSA also incorporated the two private schools. The "Private School of Fine Arts" was one of the two private schools, which was renamed as 'School of Applied Industrial Arts' (UESYO) in 1972.

In 1970, Önder Küçükerman, who was appointed to the position of 'chairperson,' was entrusted with the task of forming the department of "Interior Architecture and Industrial Design" in UESYO. Therefore, the existing "Interior Architecture" department was renamed as "Interior Architecture and Industrial Design".

Due to the considerable efforts put in by Önder Küçükerman, in 1972, the department of Industrial Design became an independent department in UESYO, and it began providing education in two separate programs. The day program consisting of day classes lasted for four years, and the evening program consisting of evening classes was a five-year program. Due to the positive effects of these developments, the five-year department of Interior Architecture was converted into "Interior Architecture and Industrial Design" in Istanbul State Academy of Fine Arts. (Mortan 2006, 43)

On the other hand, there was another approach, which can be seen as the forerunner of this formation in Istanbul. The State School of Applied Fine Arts, including the departments of Furniture-Interior Architecture, Decorative Paintings, Ceramics, and Textile Arts, was opened in 1957. "Originally, a three-year school, in 1962, the State School of Applied Fine Arts (DTGSO) became a four-year institution and it was renamed "Istanbul State School of Applied Fine Arts" (IDTGSO)". (Er 2000, 123, Şatır 2006, 18)

In the mid-seventies, at the department of Furniture-Interior Design, a dual workshop system was implemented, and industrial design projects began to be produced. As a result of the foundation of YOK in 1981, the school that was renamed Istanbul State Applied School of Fine Arts, joined MU in 1982. The department of Industrial Design became an independent one in 1985, and began graduating its first students (MU 2008).

Concurrently in 1982, the Istanbul State Academy of Fine arts was converted into Mimar Sinan University and Industrial Design department, becoming a four-year department which was under the faculty of architecture. (Yolsever 2000, 34)

Being an another point of origin at ID education in Turkey, the first preparations arose from ICA (International Cooperation Administration, later the AID) within the scope of international program by an American group consisting of Industrial Designers and marketing experts. However, this program, which was performed between 1955 and 1957, could not reach an end. In 1960, the Turkish Ministry of Industry and AID (Agency for International Development) prepared a corporate project for the development of ID education in Turkey. Unfortunately, this attempt was also in vain (Ünlü 1996, 25, Yolsever 2000, 29).

At that time, in 1956, setting up an ID department in the faculty of architecture became a current issue in METU, when METU was in its foundation stage. However, because of the financial problems, this could not become a reality. Also, in 1961 another

corporate project, the foundation of a Production Center, was planned by METU and the Boston Institute of Contemporary Arts with the support of the Turkish Ministry of Industry, but this Production Center was not realized, either (Ünlü 1996, 25, Yolsever 2000, 30).

In 1969, as a part of the AID Development Program, an American Designer, David K. Murno was entrusted with the task of founding the department of ID in METU. Although the preparations conducted by Murno were concluded in 1971, the department could not be established due to the current conditions in those years. Nevertheless, with the help of this prepared program, "ID" as a selected course was opened in the faculty of architecture (Ünlü 1996, 26, Yolsever 2000, 30).

As Ünlü puts it, "in 1978, METU once again began to work on the foundation of a department of ID" (1996, 27). In 1979, an international meeting on the Development of ID in the Developing Countries was held in Ahmadabad, India. This meeting served as the first platform for the introduction of Turkish ID education to the world. At the meeting, a paper was presented on behalf of Turkish Industrial Designer's Association, which was founded in 1978 and closed in 1980. Eventually, in 1979, the department of ID was founded at METU without any foreign support, but in accordance with the experiences of previous efforts (Ünlü 1996, 28).

Moreover, in 1983, the commission report for the founding of the ID department was prepared in the faculty of architecture in ITU. However, the undergraduate program in ID was established in 1993 (Er and Korkut 1998, 8).

In the recent years, ID education has become well known and widespread in Turkey. In accordance with the increased demand, currently there are five state and seven private universities offering a bachelor's degree in ID (ITU 2008).

The two state universities in Istanbul and Ankara offer both master's and doctoral degrees in ID. Moreover, two universities (one state and one private) in Izmir, and one in Eskisehir offer a master's degree, and one state university in Istanbul offers proficiency in arts degree in the field of ID. (see Table 2.1)

Table 2.1. Undergraduate and graduate programs in ID concerning their foundation dates.

UNIVERSITIES	FOUNDATION DATES		
	Bachelors	**Masters**	**Doctoral**
Mimar Sinan Fine Art University (MSFAU)	1971	1982	1982
Middle East Technical University (METU)	1979	1997	2004
Marmara University (MU)	1985	1986	(Proficiency in Arts)
Istanbul Technical University (ITU)	1993	1989	1996
Izmir Institute of Technology (IYTE)	-	1995	-
Yeditepe University (Private)	1996	-	-
Kadir Has University (Private)	1997	-	-
Anadolu University (AU)	2000	2002	-
Izmir University of Economics (Private) (IUE)	2001	2006	-
Dogus University (Private)	2004	-	-
Okan University (Private)	2007	-	-
Halic University (Private)	2007	-	-
Isik University (Private)	2007	-	
Gazi University	2008	-	-

2.1.2. Chronological Circumstances

The chronological chart shows the development of ID education in Turkey, from the thirties up to the present. This chart is intended to display the cases/notes that affect ID education. These cases/notes are limited with the first attempts of design educations, foundations of programs, professional associations, first exhibitions and competitions related to ID education and national/international design education meetings in Turkey.

In 1998, Alpay Er and Fatma Korkut published an article entitled "Institutionalization and ID Education in Turkey: Chronological Notes" in "Nesnel I" This publication contains all the events that occurred chronologically between 1955 and 1988 in ID educations. However, after this publication, there is no documentary obtained from literature.

The chronological chart table, prepared by the researcher, can be regarded as a contribution to the existing study carried out by the aforementioned researchers. It is intended to shed light on the period between 1998 and 2008 (see Figure 2.3, 2.4 and 2.5). However, due to the limited time and inadequate documentary, data deficiency in the chart is within the boundaries of possibility.

* Ceramics, graphics and architectural workshops belonging to the Department of Decoration (Tezyinat), was at "Sanayi-i Nefise Mektebi" renamed as Academy of Fine Arts (GSA) in 1928.	1930s	
	1955	* American ID firms were appointed to help USA ally countries to sell their handcraft products in the international market.
* The State School of Applied Fine Arts (DTGSO) began its education in Istanbul including the department of Furniture-Interior Architecture.	1957	
	1960	* Ministry of Industry and American Agency for Industrial Development (AID) collaborated for the development of ID in Turkey. Resulted in failure.
* An attempt was made to build a "Product Center" in METU. Failed due to wide scope of the project and lack of funding	1961	
	1962	* Being a three-year school, the State School of Applied Fine Arts (DTGSO) became a four-year institution and it was renamed "Istanbul State School of Applied Fine Arts" (IDTGSO)
* A report was published to establish an ID department in METU (Faculty of Architecture).	1965	
	1969	* David Munro was appointed to establish an ID department in METU. ID became an elective course till 1979. * "Private School of Fine Arts" was incorporated by IDGSA which includes the department of "Interior Architecture" and renamed as 'School of Applied Industrial Arts' (UESYO).
* The existing "Interior Architecture" department in UESYO was renamed as "Interior Architecture and Industrial Design". * The first national design competition in Turkey was organized with the corporation of Eczacıbaşı and OR-AN.	1970	

Figure 2.1. Chronological circumstances in ID education between 1930s and 1970.

	1971	* David Munro reported to establish an ID department, which was resulted in failure due to political issues.
* Industrial Design became an independent department in UESYO under the leadership of Önder Küçükerman. * An exhibition was conducted to introduce the developments of industrial design in the West in the leadership of METU and the projects of the ID elective course were also exhibited.	1972	
	1973	* The department of "Interior Architecture" was converted into "Interior Architecture and Industrial Design" in IDGSA.
* Industrial design Research and Publishing Institute (ETATE) was established within the body of IDGSA. * A dual workshop system was implemented at the department of Furniture-Interior Design in IDTGSO and industrial design projects began to be produced.	1976	
	1978	* Industrial Design Association was founded under the leadership of Eczacıbaşı. * METU "ID Department Foundation Report" was published.
* The faculty of Industrial Arts was established in IDGSA. * A meeting called "Developing ID in Developing Countries" was held with the collaboration of UNIDO and ICSID in Ahmedabad International Design Institute in India. * ID undergraduate program was opened in METU.	1979	
	1980	* "Osman Hamdi Industrial design Prize" organization in IDGSA, was held major Turkish companies of the industry and their designers. * Being an invitee, METU department of ID attended the meeting in Italy, called ICSID Regional Mediterranean Countries Group Preparations.

Figure 2.2. Chronological circumstances in ID education between 1971 and 1980.

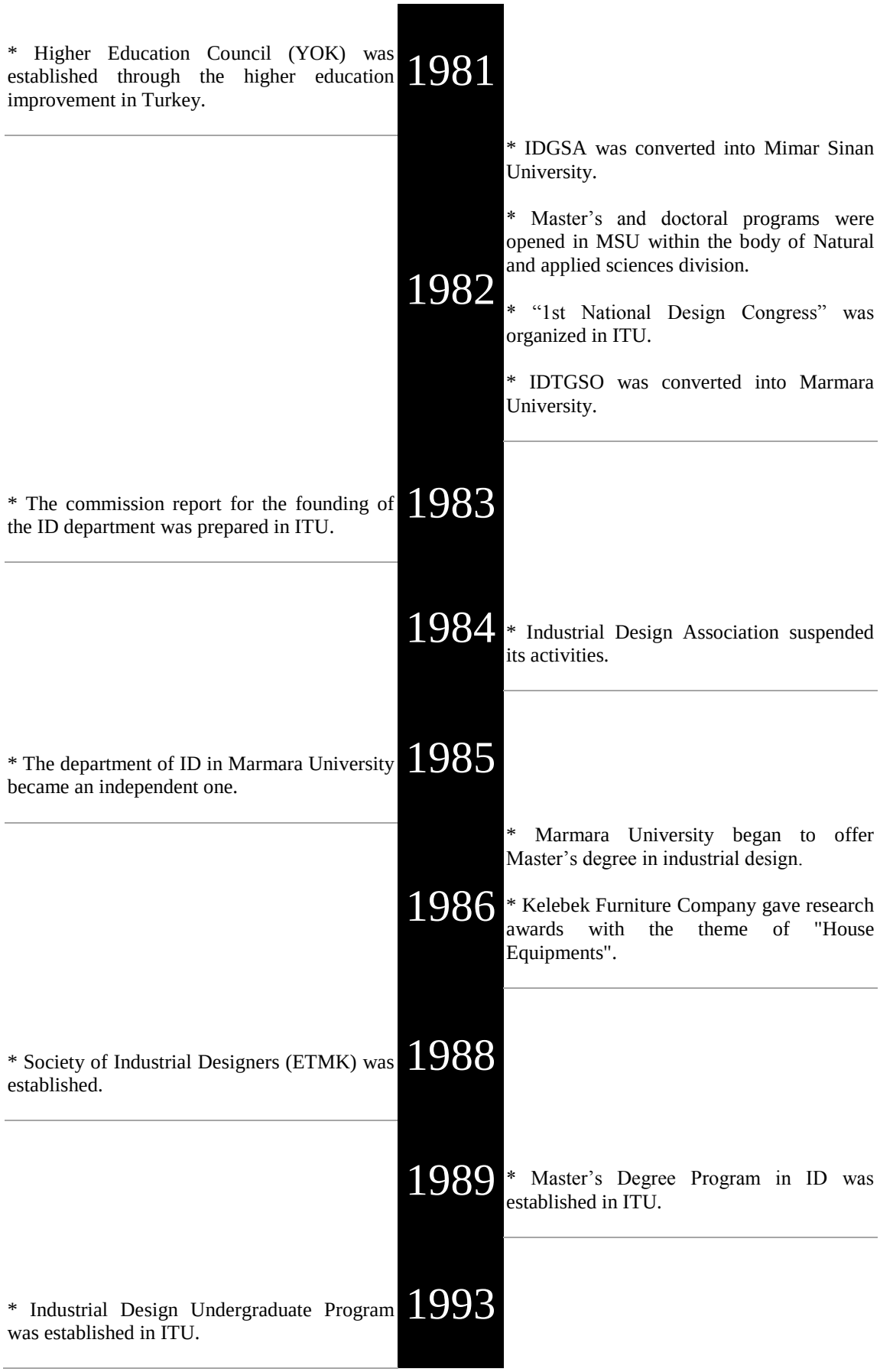


Figure 2.3. Chronological circumstances in ID education between 1981 and 1993.

	1994	* An exhibition named “Designer’s Odyssey” was arranged in company with Building Exposition by ETMK in Ankara. * METU ID department organized an international ID symposium called “Design, Industry and Turkey”.
* Izmir Institute of Technology began to offer Master’s Degree in ID.	1995	
	1996	* “Unversialization in Design” titled second National Design Congress was organized by ITU Industrial Design Department. * ID undergraduate program was founded in Yeditepe University (Private). * ITU began to offer a doctoral degree in ID.
* Master’s Degree Program in ID was established in METU. * ID undergraduate program was founded in Kadir Has University (Private).	1997	
	1998	* A seminar and panel entitled “Industrial Design Education in Turkey: Problems and Suggestions” was organized by ITU Department of ID. * Society of Industrial Designers (ETMK) was established
* A meeting entitled "Industrial Design Graduate Education in Turkey" was organized by ITU Industrial Design Department.	1999	
	2000	* A meeting entitled “Freelance Design and Its Problems” was organized by ITU. * Anadolu University Industrial Design undergraduate program was founded.
* Izmir University of Economics Industrial Design Department was founded.	2001	
	2002	* 3rd International Design History and Studies Conference, in Istanbul. * Anadolu University began to offer a master’s degree in ID.

Figure 2.4. Chronological circumstances in ID education between 1994 and 2002.

* Dogus University Industrial Design Department was founded. * METU began to offer Ph.D. degree in Industrial Design.	2004	
	2005	* A meeting entitled "Copyright in Turkey: Patent, Brand and Design" was organized by ITU ID.
* Izmir University of Economics began to offer a M.Sc. degree in Design Studies. * 1st 4T (Turkey Design History Community) meeting with the concept of "Design History and Discourse in Turkey" was held in IUE. * 3rd National Design Conference entitled "Discussion: Design in Turkey" was held in ITU.	2006	
	2007	* Okan University ID Department was founded. * Halic University ID Department was founded. * Isik University ID department was founded. * 2nd 4T (Turkey Design History Community) with the concept of "Daily Life and Design in the History" meeting was held in IUE. * The international joint MS program called "Interaction Design" was started between TUDelft (The Netherlands) and METU ID Department.
* Gazi University Industrial Design Department will begin its education. * 3rd 4T (Turkey Design History Community) meeting with the concept of "Design of Identities" is held in IUE.	2008	

Figure 2.5. Chronological circumstances in ID education between 2004 and 2008.

2.2. Comparative Analysis on "Present Situation of Master's Degree Programs in ID in Turkey"

> …the academic education of designers must be in such fields as technology engineering, materials, construction, computing, computer aided design, physics, production technologies and computer aided manufacturing, etc.), design (design methods and theories, design management, ergonomics, creativity, design research, designing projects, graphics design, communication techniques, etc.), product management (economics, finance, operations research, management, advertisement and marketing research, quality control, social psychology, etc.). (Bayazıt 1994, 203)

Master's degree education in ID research area has approximately a 25-year history. However, these programs are mostly perceived as a compulsory stage for academics to progress or a haven for the new alumni that could not find their place in the industry. In fact, the master's degree education is potentially in an advantageous position for the future even though it is less comprehensive than undergraduate education. Additionally, master's degree design programs are more flexible than undergraduate ones as they are comprised of more methods and a wider scope. For that reason, they are more sensitive to public/financial needs and professional development (Er 1998, 100).

As mentioned before in Chapter 1, nowadays, there are seven universities offering a master's degree with thesis in the field of ID (six state universities and one private university) in Turkey. In the present study, a situational analysis is carried out in order to bring out differences and similarities of their current education system. In this analysis, missions and visions, curricula and course contents, teaching staff and students enrolled in these master's degree programs are compared. The data for this section is obtained mostly from the official websites of each university. Besides, universities are listed according to the foundation dates of their master's degree programs.

2.2.1. Institutional Structures

In order to compare the institutional structures, the existing situations of the master's degree programs through the information provided from their official websites are given in Table 2.2.

Table 2.2 Situation analysis of master's degree programs in ID based on institutional structures.

UNIVERSITIES	FACULTY/ SCHOOL OF	GRADUATE SCHOOL (INSTITUTE) OF	GRADUATE DEGREE
MSFAU	Architecture	Natural and Applied Sciences	M.Sc.
MA	Fine Arts	Fine Arts	M.A.
ITU	Architecture	Natural and Applied Sciences	M.Sc.
IYTE	Architecture	Natural and Applied Sciences	M.Sc.
METU	Architecture	Natural and Applied Sciences	M.Sc.
AU	School of Industrial Arts	Natural and Applied Sciences	M.Sc.
IUE	Fine Arts and Design	Social Sciences	M.A.

Of the seven universities offering a Master's degree in Turkey, METU, ITU, IYTE, MSFAU, and AU provide a M.Sc. education in their own science-related departments within the body of the graduate school of natural and applied sciences. On the other hand, MU master's degree program was first created within the body of the 'graduate school of social sciences,' but afterwards, due to the foundation of the graduate school of fine arts in 1994, the program continued education under the art division of ID. Conversely, the master's program in Design Studies in IUE appears as a separate division under the graduate school of social sciences.

Nevertheless, these universities fall into different categories in terms of the faculties they are located in. The programs in MSFAU, ITU, IYTE, and METU are in the faculty of architecture, and the program in MU is in the faculty of fine arts. On the other hand, the program in AU is located in the school of industrial arts. At this point, it is worth mentioning that IUE holds a much different educational structure. This program aims to gather design disciplines under the roof of faculty of fine arts and design, which offers a common ground for various design disciplines embracing an interdisciplinary academic framework.

2.2.2. Missions and Visions

MSFAU has the honor of offering the first master's degree in ID in Turkey. Embracing the classical educational approach, realization of product design solutions in an environment of science and arts within the "academy" identity context constitutes the principal of the program.

In this regard, the objectives and the educational philosophy of ID master's degree program can be listed as follows:

- facilitating the Turkish industry in terms of design as well as contributing to theoretical research and applications,
- supporting Turkish industry with design and designers,
- watching global developments in the field of design and integrating this knowledge into education and industry
- Create a school that is unique in terms of ID education and profession (MSFAU 2008).

In MU, the master's degree program has a research-and-development-focused educational aim, which combines theory and application. With regard to this aim, both theoretical and practical studies concerning ID and the related areas are conducted so as to increase awareness about the collective property of this division (MU 2008).

The program in ITU, which provides education under the faculty of architecture, is based more on research than project. However, this program "differs from the other existing ID Master's degree programs regarding its interdisciplinary student composition and experimental and innovative approach in "Advanced Design Project" studios". (ITU 2008)

In this regard, in light of the technological and methodological developments in the field of product design, the program not only focuses on academic research but it is also responsive to the industry needs and interdisciplinary education philosophy, which has a structure of international academic standards (Bayazıt 1998, 64).

In IYTE, the master's program is based on research and application. The reasons for its foundation and subjects covered in the program are listed below:

- Teaching necessary knowledge, methods and concepts that are used in the techno-industrial based design, production and marketing processes,
- Evaluation of technological data,
- Creative processes and methods of design,
- Combination of design and communication methods (CAD-CAM)
- "Education and R&D Processes" (Özcan 1998, 76).

The program in METU is founded on a research-based educational philosophy. "It focuses on new problems and up-to-date themes that are related with the discipline and academic research that emphasizes the multi-disciplinary structure of design." For that reason, the program aims to improve scientific, critical, and analytical thinking skills of its students and raise researchers and instructors in this field. Additionally, with

regard to its multi-disciplinary objective, the program aims to teach the notion of design to students coming from different disciplines and combine the discipline of design with those disciplines in order to come up with more creative solutions. These constitute the most important elements of the program (Hasdoğan 1998, 103, METU 2008).

AU is different from others with regard to its objectives such as raising technical work force and contributing to university-industry collaboration. This program is based on university-industry collaborative education and aims to raise "modern, dynamic, and qualified" designers. Computer-aided design supports, design studios with state-of-art technology software, computer labs, and workshops have helped the department to combine theory and application. (AU 2008)

IUE, as a private university, has the most recently founded master's degree program in ID in Turkey. The educational approach of the program is research and application based and it brings design disciplines together. The aim is "to handle the discipline of design with various views, extent, scale, and materials in different topics and to perform in a wide professional area." In other words, the aim of this program is that "alumni will be equipped with skills that are both theoretical and practical within a global context". (IUE 2008)

Although no obvious differences can be seen in the objectives of the programs that are stated either on the universities' websites or by the academics themselves, some important issues need to be indicated. That is, what ITU and METU have in common is that the Master's degree programs in both universities embrace a research-oriented educational philosophy in an interdisciplinary area. However, they are different from each other in the sense that the program in ITU offers courses that open in accordance with the demand of the related industry, and that practical projects are carried out through interdisciplinary teamwork. In METU, on the other hand, the program emphasizes more on the multi-disciplinary structure of design research.

In addition, the master's degree programs in IYTE, MSFAU, and AU focus on university-industry collaboration. However, these universities differ from one another according to their educational structures and teaching styles. For instance, IYTE adopts a techno-industrial based structure, MSFAU embraces an educational structure that is "academy" identity context and the program in AU focuses on computer-aided design and workshops. On the other hand, the graduate program in design studies in IUE holds an educational structure that is relatively comprehensive as it comprises almost all the fields of design.

2.2.3. Curricula and Course Contents

In order to define the educational philosophy of the ID master's degree programs in a theoretical-practical context, one has to examine their curricula and courses. "However, every program has its own aim, objective, rationale and market. Therefore, it can be said that no program is better than the other." (Balcıoğlu 1998, 15)

Credit densities, interdisciplinary tendencies, the curricula and course contents of the master's degree programs are analyzed in this section for the aim of comparing their educational philosophies:

The program in MSFAU consists of at least 10 courses with 21 credits and non-credit seminar, a thesis progress report and a thesis.

The program's Project I and II core courses are practice and research based that aim to achieve 'advanced product design' and 'project planning' for different types of industrial sectors.

On the other hand, when the program's elective courses and course contents are examined, it can be seen that the program focuses on industry and manufacturing oriented theoretical education. In this regard, some of the main topics covered in the program are user-product interaction, production techniques, cultural and socio-economic influences, materials, management, technology, and legal status.

It can be said that the courses entitled "Design Semiotics & Product Semantics", "Ergonomics", "Anthropometrics", "Communicational Models in Design", "Measurements of Interface Design", and "Interface Design Concepts in the Human-Machine Relation" concentrate on the human role on design and user-product interaction. Additionally, courses such as Industrial Affairs, Industrial Systems, Material Selection, and Manufacturing Physics focus on the technical features of the industry and production.

When the courses are examined in terms of the distribution of credits, it could be said that the "Design Theories" course is the heaviest one. This course is followed by courses entitled "Socio-Economic Influences in Industrial Design" and "Socioeconomics in Industrial Design" in terms of their heavy load. These courses are research-based and they concentrate on the social aspects of the design discipline. Another important course is the one entitled "Intellectual Property Rights and Design Property Rights," which looks at the judicial aspects of the discipline.

Table 2.3 Courses of master's degree program in ID in MSFAU.
(Source: MSFAU 2008)

MSFAU DEPARTMENT OF ID MASTER'S DEGREE PROGRAM		Credits	Theory /Practice
CORE COURSES	Project I	(0-4)2	P
	Project II	(0-4)2	P
	Seminar	NC	T
	Thesis Progress Report	NC	T
	Thesis	NC	T
ELECTIVE COURSES	Design Theories	(4-0)4	T
	Design Methodologies	(2-0)2	T
	Communicational Models In Design	(2-0)2	T
	Design Semiotics & Product Semantics	(2-0)2	T
	Ergonomics	(2-0)2	T
	Anthropometrics	(2-0)2	T
	Product Planning Concept	(2-0)2	T
	Product Planning Techniques	(2-0)2	T
	Manufacturing Techniques–Research and Development	(2-0)2	T
	Manufacturing Physics	(2-0)2	T
	Interface Design Concepts in the Human-Machine Relation	(2-0)2	T
	Measurements of Interface Design	(2-0)2	T
	Industrial Affairs	(2-0)2	T
	Industrial Systems	(2-0)2	T
	The Effects of Industrial Policies on Products in Turkey	(2-0)2	T
	The Model of Cultural Changing Elements in Industrial Products	(2-0)2	T
	Material Selection	(2-0)2	T
	Manufacturing Methods and Techniques	(2-0)2	T
	Intellectual Property Rights	(2-0)2	T
	Design Property Rights	(2-0)2	T
	Socio-Economic Influences in Industrial Design	(3-0)3	T
	Socio-Economics in Industrial Design	(3-0)3	T
	Design Management Concepts	(2-0)2	T
	Design Management Techniques	(2-0)2	T
	Technological Development in Design	(2-0)2	T
	Design and Technology	(2-0)2	T
	Research Techniques in Product Design	(2-0)2	T

When all the program's courses and course contents are analyzed, it can obviously be seen that the program concentrates on production, industry, and the social aspects of design research.

The program in MU consists of at least 12 courses (2 cores, 10 elective) with 28 credits and non-credit seminar and a thesis.

If the program's core and must elective courses are considered together, it can be said that core courses include application dependent upon research, and the courses entitled "Industrial Design I, II", and compulsory electives ("Research Methods", "Design Theory I-II", and "Production Organization Management") focus on the theoretical evaluation of topics like classification and examination of research methods, theories, and management in design.

Table 2.4 Courses of master's degree program in ID in MU.
(Source: MU 2008)

MU DEPARTMENT OF ID MASTER'S DEGREE PROGRAM		Credits	Theory /Practice
CORE COURSES	Industrial Design I	(4-2)4	T-P
	Industrial Design II	(4-2)4	T-P
	Thesis	NC	T
ELECTIVE COURSES (Must Select)	Research Methods	(2-0)2	T
	Design Theory I	(2-0)2	T
	Design Theory II	(2-0)2	T
	Production Organization Management	(2-0)2	T
	Seminar (Design Commentary)	NC	T
ELECTIVE COURSES	Design Presentation Methods I	(2-0)2	T
	Design Management	(2-0)2	T
	Materials Production Methods	(2-0)2	T
	Contemporary Turkish Art	(2-0)2	T
	Contemporary Art Practice I	(2-0)2	T
	Comparative History of 19th Century Art I	(2-0)2	T
	Design Exposition Methods II	(2-0)2	T
	History of 20th Century Design	(2-0)2	T
	Brand Management	(2-0)2	T
	Design Law	(2-0)2	T
	Mythology	(2-0)2	T
	Comparative History of 19th Century Art II	(2-0)2	T
	Contemporary Art Practice II	(2-0)2	T

With regard to the elective courses, it could be said that art, history of art, and management are the leading concepts. On the other hand, in terms of the structure of the program, gathering art and product design under a single roof permits the examination of the abstract aspects of design. In addition, by means of elective "Brand Management" and "Design Law" courses, branding methods and judicial rights are analyzed within the scope of design.

When the all courses are examined in terms of the distribution of credits, it could be seen that the courses apart from entitled "Industrial Design I," "Industrial Design II" that are four-credit courses, are theory-based. Therefore, this program embodies an educational structure that combines the technique and art dependent theoretical education with practical aspects of the design discipline.

The master's program in ITU constitutes 8 courses (4 cores, 4 elective) with at least 24 credits and compulsory non-credit courses like a seminar and a thesis.

When the core and elective courses of this program are examined, it can be seen that all courses are based on theoretical knowledge, and they are the same in terms of the heavy workload.

Table 2.5 Courses of master's degree program in ID in ITU.
(Source: ITU 2008)

ITU DEPARTMENT OF ID MASTER'S DEGREE PROGRAM		Credits	Theory /Practice
CORE COURSES	Statistics in Design Research	(3-0)3	T
	Design Research Methods	(3-0)3	T
	Directed Studies in Design	(3-0)3	T
	Future Directions in Design	(3-0)3	T
	Seminar	NC	T
	Thesis	NC	T
ELECTIVE COURSES	Advanced Design Project I	(3-0)3	T
	Advanced Design Project II	(3-0)3	T
	Aesthetics Experience	(3-0)3	T
	The effects of Bauhaus and its follower movements on 20th Century Design	(3-0)3	T
	Form Searching Methods in Industrial Product Design	(3-0)3	T
	Development of ID in Turkey	(3-0)3	T
	Applications of 3 Dimensional Animation in ID	(3-0)3	T
	Intellectual Property and Design	(3-0)3	T
	Product Evaluation	(3-0)3	T
	Product Materials and Technology	(3-0)3	T
	Management of ID	(3-0)3	T
	Advanced Problems of Graphic Expression	(3-0)3	T
	Lighting Luminaries Design and Production Techniques	(3-0)3	T
	Contemporary ID	(3-0)3	T
	Case Studies in Design Management	(3-0)3	T
	Concepts and Methods in Interaction Design	(3-0)3	T
	Voice and Animation Applications in ID	(3-0)3	T
	Effects of Material Properties on Physical Form in Architectural and ID	(3-0)3	T
	Design Semantics	(3-0)3	T
	Design Law and Practices	(3-0)3	T
	Paradigms of Design	(3-0)3	T
	Introduction to Creativity Concepts	(3-0)3	T

In this respect, "Statistics in Design Research" is about statistical analysis of the data gathered from area studies in design research, whereas "Design Research Methods" deals with taxonomy and the analysis of methods in design research and "Directed Studies in Design" constitutes topics like structure and the analysis of new public, economic and technological developments within the concept of design. Additionally, the core course entitled "Future Directions in Design", which examines future themes in design with responsibility, is also included in the program.

On the other hand, when elective courses are examined with regard to their course contents, it can be pointed out that there are courses such as "Product Materials and Technology", "Applications of 3 Dimensional Animation in ID" and "Lighting Luminaries Design and Production Techniques" which are mostly practice-based but have a theory-based identity.

In addition, among the electives, the course entitled "Advanced Design Project I-II" focuses on practice and research. Even though such courses are not opened in every semester; they aim for advanced design projects, determined due to the demand within the frame of university-industry collaboration. They are carried out through interdisciplinary teamwork.

Nevertheless, when the load, position, and depth of the courses are considered together, it can be observed that this program has practice within its body and that it is designed for academic research.

The program in IYTE consists of at least seven courses with 21 credits and a non-credit seminar, a thesis, special studies and special topics studies.

Table 2.6 Courses of master's degree program in ID in IYTE.
(Source: IYTE 2008)

IYTE DEPARTMENT OF ID MASTER'S DEGREE PROGRAM		Credits	Theory /Practice
CORE COURSES	ID Studio I	(4-8)8	T-P
	ID Studio II	(4-8)8	T-P
	Research Methods in Design	(3-0)3	T
	Seminar	NC	T
	Thesis	NC	T
	Special Studies	NC	T
	Special Topics	NC	T
ELECTIVE COURSES	Vision, Form & Function	(3-0)3	T
	Advanced Product Development	(2-4)4	T-P
	Research Methods in Design	(2-2)3	T-P
	Design Consumption	(3-0)3	T
	Consumption Trends & Material Culture	(3-0)3	T
	Introduction to Visual Media	(3-0)3	T
	Design Evolution	(3-0)3	T
	Materials and Production Technologies	(2-2)3	T-P
	Design Marketing	(3-0)3	T
	Design Management	(3-0)3	T
	Ergonomics and Human Factors in Techno ID	(3-0)3	T
	Design Engineering	(3-0)3	T
	Control Technology in Design	(2-4)4	T-P
	Design Communication	(3-0)3	T
	Design Semiotics	(3-0)3	T
	Sustainable Design	(4-2)5	T-P
	Perception Sign and Meaning: Use of Visual Language in Design	(3-0)3	T
	Technological Development and Design Innovation	(2-2)3	T-P
	Product Innovation	(2-2)3	T-P
	Fractal Geometry and ID Relations	(3-0)3	T
	Advanced Control Technology	(3-0)3	T
	Philosophical Context of Design Research	(2-0)2	T
	Fashion Concept in Design	(2-2)3	T-P
	Techno-Industrial Aesthetics	(3-0)3	T
	Art and Communications	(3-0)3	T
	Industrial and Graphic Photography	(2-2)3	T-P
	Cinema and Design	(3-0)3	T

The most important point that needs to be highlighted when assessing the curriculum of the program is that the curriculum has not been updated since the 2003-2004 academic year, however upgrading will be offered in the fall semester 2009.

With regard to this, there are two practice focused courses and one theory focused course among the core courses of the master's degree program. In this regard, "ID Studio I-II" is a practice and practice intended theory based core course dealing with a project plan and an organization through interdisciplinary teamwork for product design, project implementations and preparation of prototypes. In addition, "Research Methods" is a core course that includes topics like 'definition and implementation of research method' in the field of design. These three courses constitute the core courses with credit.

This program's elective courses include technology and industry focusing on artistic, technical, and theoretical education based topics. In addition, in terms of the distribution of credits, of the eighty-four-credit elective courses, eight courses that constitute thirty-four credits are practice-based. These courses (focusing on topics like cinema, sustainability, photography, innovation, and materials knowledge) which have an interdisciplinary structure focus on the research aspect of design within the concept of technology and practice. In addition, the courses that focus on the topics of cinema, art, aesthetics, visual media and management reveal that the program offers a wide variety of courses.

As a result, offering a practice and interdisciplinary aimed education through the topics of technology and innovation, the master's degree program in IYTE is based on both research and practice.

In METU, the program consists of at least seven (2-core) courses with 24 credits and non-credit seminar and a thesis.

When core courses and their contents are examined, it can be observed that they are mostly theory based. In this respect, the course entitled "Research Methods in ID I", includes the structure of interdisciplinary academic research. On the other hand, "Advanced Project Development" is an application oriented course that includes practice and theoretical information intended for determining new methods, approaches, and problem areas in the interdisciplinary area of industrial design.

The program's elective course load is again heavily theory focused and concentrates on the conceptual evaluation of topics like 'cultural cases', 'ergonomics data', 'product marketing strategies', 'national and international regulations that

designers must obey', 'history of design', 'conventional and strategic design cases' and 'actual themes'. In addition, the elective courses like "Media and Design" and "Designing Interactions" include practice hours, and deals with the principles and theories of communication. Moreover, the course entitled "Designing Interactions" deals with concepts in relation to various interaction domains.

Table 2.7 Courses of master's degree program in ID in METU.
(Source: METU 2008)

METU DEPARTMENT OF ID MASTER'S DEGREE PROGRAM		Credits	Theory/ Practice
CORE COURSES	Research Methods in ID I	(3-0)3	T
	Graduate Seminars in ID	NC	T
	Advanced Project Development in ID	(3-6)6	T-P
	Advanced Studies	NC	T
	Special Studies	NC	T
	Thesis	NC	T
ELECTIVE COURSES	Directed Studies in ID	3	T
	Media and Design	(2-2)3	T-P
	Cultural Analysis of Design	3	T
	Models and Methods of Ergonomics	(3-0)3	T
	Designing the Man-Machine Interface	3	T
	Design Management	3	T
	Legal Rights and Responsibilities of Practicing Designers	(3-0)3	T
	Structural Analysis in Product Design	(3-0)3	T
	Problem Solving Methods for Industrial Designers	3	T
	Signage Systems	3	T
	Methods of Usability Testing and User Centered Design	3	T
	Application of Usability Testing and User Centered Design	3	P
	Design Methods	(3-0)3	T
	Designing Interactions	(2-2)3	T-P
	Critique of Design I	3	T
	Critique of Design II	3	T
	Design Considerations for Special User Groups	3	T
	Designing for the Disabled	3	T
	Qualitative Methods for ID Research	3	T
	Oral History in Design Communities	3	T
	Material Culture and Consumption in Everyday Life	3	T
	Independent Study on Turkish Design in Traditional Context	(3-0)3	T
	Current Issues in ID	(3-0)3	T
	Responsible Design	3	T
	Product-Service Systems for Sustainable Solutions	3	T
	Strategic Design	3	T
	Dimensions of Design and Emotion	(3-0)3	T

Yet, on the other hand, elective courses entitled "Designing for the Disabled", "Material Culture", and "Consumption in Everyday Life and Methods", "Applications of Usability Testing" and "User Centered Design" deal with application-based theoretical topics. "Methods", "Applications of Usability Testing", and "User Centered

Design" include the methods and application of the studies in the usability lab, which is built within METU.

Finally, if the core and elective courses in the master's program in METU are analyzed together, it can be pointed out that the program concentrates on a theoretical context and aims for research and development in an interdisciplinary area. In addition, it provides specialization areas through the usability and human factors lab and also by offering an international joint master's degree program named "Interaction Design" within the body of its department.

The program in AU with thesis consists of seven compulsory courses with credit (4 must, 3 elective) and in addition a seminar course and a thesis.

When the course contents are examined, it can be seen that ID I and II are designed within a theoretical context focusing on practice. The courses constitute the combination of the transformation of theory to practice like scale, function, aesthetics and main design methods and processes like project process, use of technology and product costs.

Table 2.8 Courses of the master's degree program in ID in AU.
(Source: AU 2008)

AU DEPARTMENT OF ID MASTER'S DEGREE PROGRAM		Credits	Theory/ Practice
CORE COURSES	Industrial Design I	(3-0)3	T
	Industrial Design II	(3-0)3	T
	Brand and Marketing Processes in Design	(2-2)3	T-P
	New Approaches to Design	(3-0)3	T
	Seminar	NC	T
	Thesis	NC	T
ELECTIVE COURSES	Scientific Research Planning and Appreciation	(3-0)3	T
	Role of Product Development Sector	(3-0)3	T
	Design Management	(3-0)3	T
	Portfolio Presentation Techniques	(3-0)3	T
	Media and Design	(3-0)3	T
	Quality in Design	(3-0)3	T
	Product Identity	(3-0)3	T
	Culture Problems	(3-0)3	T
	Advanced Computer Aided Production	(3-0)3	T
	Advanced Presentation Methods I	(2-2)3	T-P
	Advanced Presentation Methods II	(2-2)3	T-P
	Computer Aided Design I	(2-2)3	T-P
	Computer Aided Design II	(2-2)3	T-P
	Visual Communication	(3-0)3	T
	Advanced Computer Aided Design I	(2-2)3	T-P
	Advanced Computer Aided Design II	(2-2)3	T-P

“Brand and Marketing Processes in Design” is a compulsory course, which is based more on practice including the practice credits, and the course includes the examination of brand identity and market creation processes of the designed products. In addition, “New Approaches to Design” deals with recent themes in design and provides the use of new trends in product design. It’s also a theory based course but involves interaction with practice.

The elective courses of this program can be analyzed in two groups. The courses of the first group are theory based. The course entitled “Scientific Research Planning and Appreciation” studies the scientific research aspect of design, and “Design Management” includes topics like ‘defining design policies’, ‘comparing management processes in connection with production systems and cultures’. The courses in the other group, on the other hand, are practice-based and they focus on ‘product development’, ‘advanced methods in production’, ‘computer aided design’ and ‘presentation techniques’.

When the Curricula and the contents are analyzed, it can be concluded that the program focuses on practice based computer aided presentation and heavily technical, theoretical learning on industry.

The design studies master’s degree program in IUE consists of at least nine courses (6 cores, 3 elective) with 27 credits, a non-credit workshop, a seminar and a thesis. The program has two options for thesis; project based or theory based. The program provides education within the faculty of fine arts and design.

When the core courses and their contents are examined, it can be pointed out that the program is based on practice and practice-based theory. In this context, “Design Research Techniques” includes the notion of research and methods. “Seminar I-II” enables students to establish theoretical foundations for research findings and to present them in a systematic frame. In “Workshop,” students give presentations on certain topics and the course entitled “Design Represent Theories” includes theoretical frames that look into findings of research. These are theory based core courses. In addition, “Current Topics in Art and Design”, being a theory-based course, deals with topics like ‘new art and design themes’ and ‘forming design identity’.

Additionally, “Research for Thesis”, which includes the thesis’ research extent, scope, and kind, exhibits an exception by providing options (project based or theory based) for thesis preparation and includes both theoretical and practice-based theoretical learning.

When the program's elective courses are examined, it can be seen that this program is also heavily dependent on theory just like core courses. In addition, there are practice focused studio studies for those who will choose a project based thesis study.

Table 2.9 Courses of master's degree program in Design Studies in IUE.
(Source: IUE 2008)

IUE DESIGN STUDIES MASTER'S DEGREE PROGRAM		Credits	Theory/ Practice
CORE COURSES	Design Research Techniques	(3-0)3	T
	Design Represent Theories	(3-0)3	T
	Current Topics in Art and Design	(3-0)3	T
	Design Seminar I	(3-0)3	T
	Design Seminar II	(3-0)3	T
	Research for Thesis	(3-0)3	T
	Workshop	NC	T
	Seminar	NC	T
	Thesis Research (Graduate Thesis with/without Project)	NC	T
ELECTIVE COURSES	Spatial Practices	(3-0)3	T
	Evolution of Design	(3-0)3	T
	Semiotics in Design	(3-0)3	T
	Conceptual Geographies	(3-0)3	T
	Imaginary and Futuristic Design Studies	(3-0)3	T
	Design Education Planning and Contemporary Education Problems in Design	(3-0)3	T
	Ecological and Bio-climatically Design	(3-0)3	T
	Symbiotic Systems	(3-0)3	T
	Graphic Design Studio	(2-2) 3	T-P
	Typographic Design Studio	(2-2) 3	T-P
	Commercial Design Studio	(2-2) 3	T-P
	Portfolio Design	(2-2) 3	T-P
	Art, Design and City	(3-0)3	T
	Fashion Project	(2-2) 3	T-P
	Fashion Prevision	(3-0)3	T
	Trend Catalogue Project	(2-2) 3	T-P
	Fashion Studies	(3-0)3	T
	Looking into The Past in Contemporary Fashion	(3-0)3	T

Elective courses that can be classified as theory based are "Spatial Practices", "Semiotics in Design", "Conceptual Geographies", "Design Education Planning", and "Contemporary Education Problems in Design". These courses focus on 'theoretical education in body/place/socio-cultural context relationships in design', 'evolution rules', 'semiotic approaches', 'nineteenth century art philosophy', and 'education. Additionally, in the course entitled "Art, Design and City", theoretical knowledge on art and design in public spaces is provided through discussions on the urban aspects of design.

In addition, "Graphic Design Studio", "Typographic Design Studio", "Commercial Design Studio", "Trend Catalogue Project", and "Fashion Project" are

elective courses that provide practical and theoretical education focused on practice. In addition, courses entitled “Fashion Studies” and “Portfolio Design” are elective courses that deal with the definition of communication and transformation of theory into practice.

Finally, when both core and elective courses and their contents are examined, it can be observed that the program is practice and theory based that deal with theoretical education based on research and presentation techniques with an interdisciplinary perspective, which corresponds to the course objectives.

The educational philosophies concerning the specialization of each university are given in Table 2.10.

Table 2.10 Form of the master’s programs as a result of analysis on curricula.

UNIVERSITIES	**PHILOSOPHY OF EDUCATION BASED ON CURRICULA**	**REQUIREMENTS FOR GRADUATION**
MSFAU	Concentrated at human-product relation, production, industry, and social centered design research education.	10 Courses/ 21 Credits/
MU	Combines the technique and art dependent theoretical education with practical aspects of the design discipline	12 Courses/ 28 Credits/
ITU	Has practice within its body; it is structured for an academic design research education	8 Courses/ 24 Credits/
IYTE	Offering a practice and interdisciplinary aimed education with the topics of technology and innovation, the program has a structure both on the research and practice side of design	7 Courses/ 21 Credits
METU	Theoretical context and directed for research and development in an interdisciplinary area. Besides, it provides a specialization area on usability and human factors and interaction design.	7 Courses/ 21 Credits
AU	Practice based computer aided presentation and heavily technical, theoretical education on industry	7 Courses/ 21 Credits
IUE	Practice and theory focused that include theoretical education on research and presentation techniques with an interdisciplinary perspective, in the same direction as the course objectives	9 Courses/ 27 Credits

In terms of curricula analysis, MU and IUE have the most graduation requirements regarding the credit densities. This is caused by the institute of Fine Arts and Social Sciences respectively .Therefore, in MSFAU, since each course is limited to two credits, students need to enroll in more courses, which is caused by the fact that students get more “loaded” education in terms of the educational philosophy.

2.2.3. Teaching Staff and Students

The statistical values of teaching staff and students at master's degree programs are obtained from the related departments of each university by orally request and official websites of these universities.

In accordance with the information gathered about the teaching staff, eight academics in MSFAU, seven in MU, seven in ITU, two in IYTE, nine in METU, two in AU and three academics in IUE are situated, respectively. The situation analysis of teaching staff (full-time academics) situated in the master's degree programs of ID according to their academic title is given in Table 2.11. A crucial case that has to be highlighted in this section is the fact that the academics situated beyond from ID department are kept out of the study.

Table 2.11. Teaching staff at master's degree programs, 2008.

UNIVERSITIES	PROF.	ASSOC. PROF.	ASSIST. PROF.	INST. DR.
MSFAU	3	-	5	-
MU	1	-	6	-
ITU	2	2	1	2
IYTE	-	1	-	1
METU	-	3	4	2
AU	-	-	2	-
IUE	1	-	2	-

As figure 2.6 describes, a total number of seven academics are professor, only six academics are associate professor, twenty academics are assistant professor and five academics are instructor (holding a doctoral degree). Therefore, it can be said that, teaching staff situated in the programs of ID are thirty-eight in total.

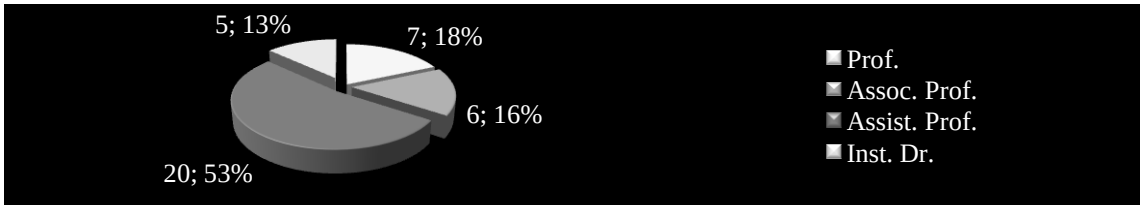


Figure 2.6. Distribution of teaching staff according to their academic titles, 2008.

Apart from all analyzed universities in this section, IUE and AU, due to their disparate educational structure are differentiated by their teaching staff profile. As teaching staff of IUE is composed of thirteen academics in total that covers all design

disciplines in the faculty of fine arts and design such as ID, architecture, fashion and communication design. The staff in AU totally is composed of a total number of six academics from the departments of ID, fashion and business.

The situation analysis of students enrolled in the master's degree programs of ID in the universities, except for METU, is given in Table 2.12. It is essential to mention that 2008-2009 academic year is not included in these data.

Table 2.12. With respect to graduated, continuing and dismissed students at master's programs, 2008.

UNIVERSITIES	THE PERIOD	GRADUATED STUDENTS	CONTINUING STUDENTS	DISMISSED STUDENTS
MSFAU	1985-2008	38	15	92
MU	1995-2008	20	37	17 (since 2006)
ITU	1995-2008	62	68	98
IYTE	1995-2008	35	3	15
AU	2004-2008	2	14	5
IUE	2006-2008	-	15	-

As Figure 2.7 describes, a total number of 157 students graduated from these six universities between 1985 and 2008, on the other hand, a total number of 227 students have been dismissed from their master's programs. In addition, 152 students in total continue their education.

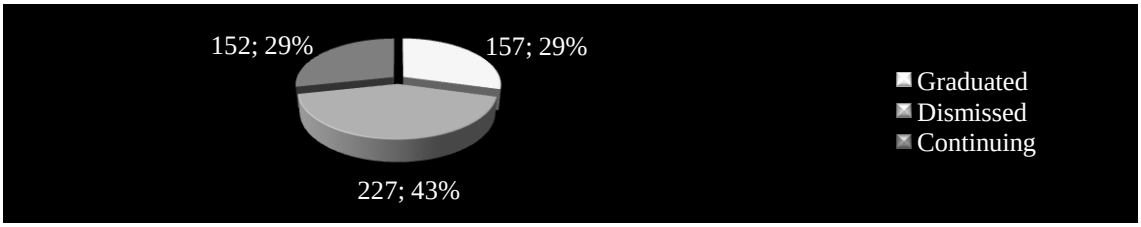


Figure 2.7. Distribution of students enrolled in ID master's programs, 2008.

In terms of student distribution, ITU has the maximum ratio with 62 graduates, 68 continuing students and 98 dismissed students that display the high level of admissions and student circulation. In addition, what attracts attention in this part is that MSFAU being the first established department has the similar ratio of graduated students with MU and IYTE. Apart from these, due to being newly founded programs, IUE and AU have the minimum ratio in total amount.

In the next chapter, the results obtained from the survey studies through the objectives of the subject will be presented.

CHAPTER 3

RESULTS AND IMPLICATIONS OBTAINED FROM THE SURVEY STUDIES

As indicated in Chapter 1, this thesis seeks the academics' opinions about the master's degree education in ID through two survey studies. The first survey (See Appendix A and B) was conducted with twelve, and the second one (See Appendix C and D) with sixteen academics, whose universities offer a master's degree in the field of ID. It is important to mention that nine academics, among the first group of respondents, took part in second survey.

In this chapter, the results and implications obtained from the two surveys will be presented under the topics of "Demographical Structure of Respondents and the Programs", "Comparative Analysis of Master's and Bachelor's Degrees", "Analysis of the Educational System in the Master's Degree Programs" and "Future Predictions and Recommendations."

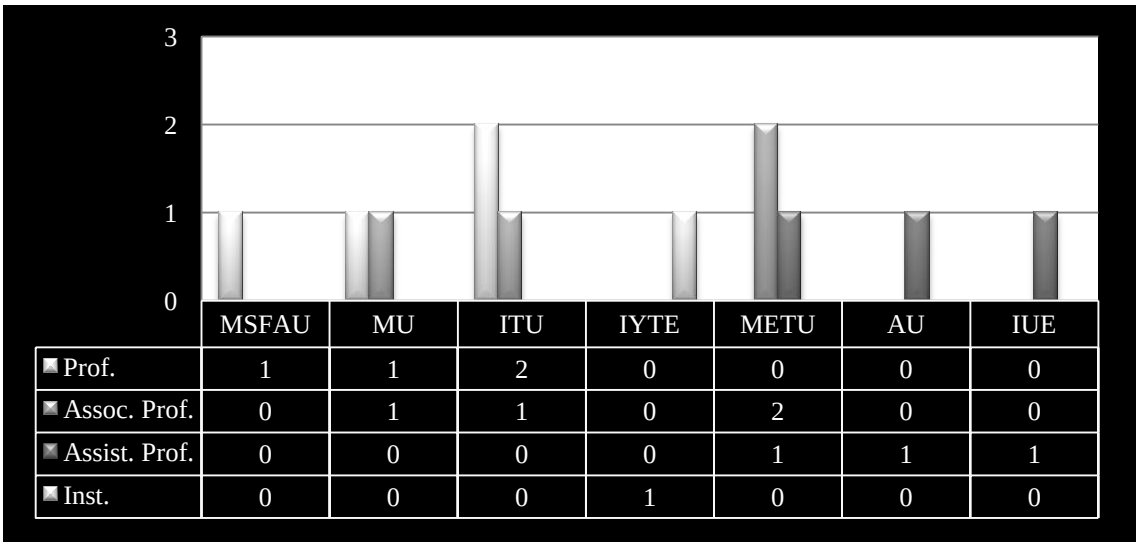
3.1. Demographical Structure of the Respondents and the Programs

The demographic information of the respondents and the master's degree programs was analyzed in order to highlight the respondents' current situation and how the master's degree programs are perceived from their point of view.

3.1.1. Backgrounds of Respondent Academics

This section gives some information regarding respondents' academic backgrounds, the administrative positions they hold or they have held, and whether they have an academic publication in the field of ID education. Moreover, in both survey studies, the question "Do you work in the design industry apart from being a faculty member?" was either answered subjectively or left unanswered by the respondents. For this reason, this question was not included in the study.

***First Survey Study*:** One academic from MSFAU, two from MU, three from ITU, one from IYTE, three from METU, one from AU and one from IUE took part out of a total number of twelve academics. The figure below shows the distribution of the respondents according to their academic titles.



	MSFAU	MU	ITU	IYTE	METU	AU	IUE
Prof.	1	1	2	0	0	0	0
Assoc. Prof.	0	1	1	0	2	0	0
Assist. Prof.	0	0	0	0	1	1	1
Inst.	0	0	0	1	0	0	0

Figure 3.1. The number of respondents concerning their academic titles that took part in the first survey.

Five of the twelve respondents perform administrative duties. One of these five respondents performs three administrative duties; namely, as the head of division, head of department and a double major coordinator. Three of them are heads of their departments. The other respondent is in the faculty administration committee. There are also some respondents who no longer have administrative duties. One of the seven respondents performed as the head of department between 2004 and 2007, and another performed as the head of division between 1993 and 2006 and the head of department between 1995 and 2006.

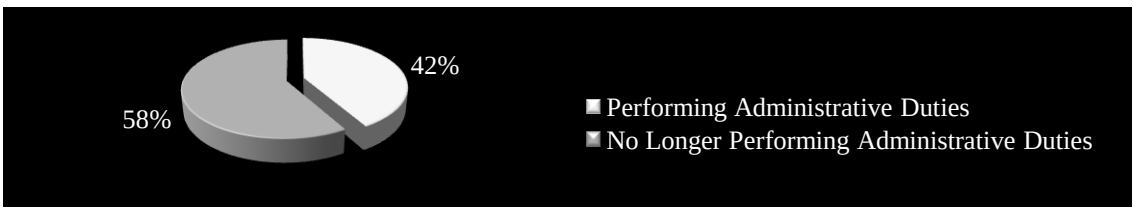


Figure 3.2. Distribution of respondents performing administrative duties.

Table 3.1 gives some information concerning respondents' bachelors, masters and PhD/Proficiency in Arts degrees.

Table 3.1. Academic backgrounds of the respondents that took part in the first survey.

RESPONDENTS	BACHELOR'S DEGREE IN	MASTER'S DEGREE IN	PhD./ PROFICIENCY IN ARTS
Respondent 1	Industrial Design	Industrial Design	Industrial Design
Respondent 2	Industrial Design	Architecture	Industrial Design
Respondent 3	Architecture	Architecture	Architecture
Respondent 4	Industrial Design	Interior Design	Interior Design
Respondent 5	Interior Design	Industrial Design	Industrial Design
Respondent 6	Industrial Design	-	Industrial Design
Respondent 7	Architecture	Architecture	Architecture
Respondent 8	Industrial Design	Architecture	Industrial Design
Respondent 9	Industrial Design	Industrial Design	Industrial Design
Respondent 10	Interior Design	Interior Design	Interior Design (Proficiency in Arts)
Respondent 11	Industrial Design	Industrial Design	Industrial Design
Respondent 12	Architecture	Industrial Design	-

As it can be seen from Table 3.1, eight of the respondents hold their bachelor's degree from industrial design departments. There are also two architecture and two Interior Design graduates.

Figure 3.3. Distribution of disciplines concerning the bachelor's degree.

With regard to the master's degree, five respondents have their degree in Industrial Design, two in Interior Design, and four in Architecture. One academic does not have a master's degree.

Figure 3.4. Distribution of disciplines concerning the master's degree.

In addition, ten respondents have a PhD degree. With respect to this, seven respondents hold a degree in Industrial Design, one in Architecture, and two in Interior Design. One academic holds a 'Proficiency in Arts' degree while the other one does not have a PhD degree.

Figure 3.5. Distribution of disciplines regarding PhD. and Proficiency in Arts.

In addition, most of the respondents are specialized with a publication in the field of ID education. Nine respondents are specialized with a publication in this research area, while the remaining three are not.

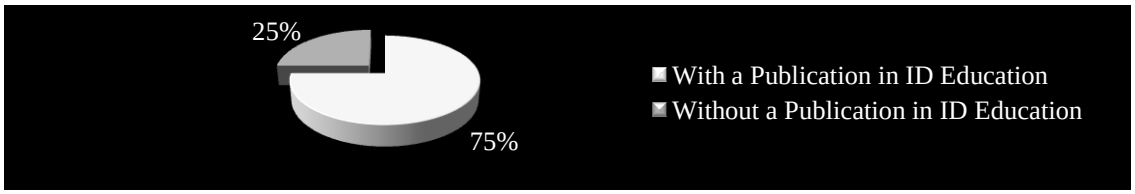
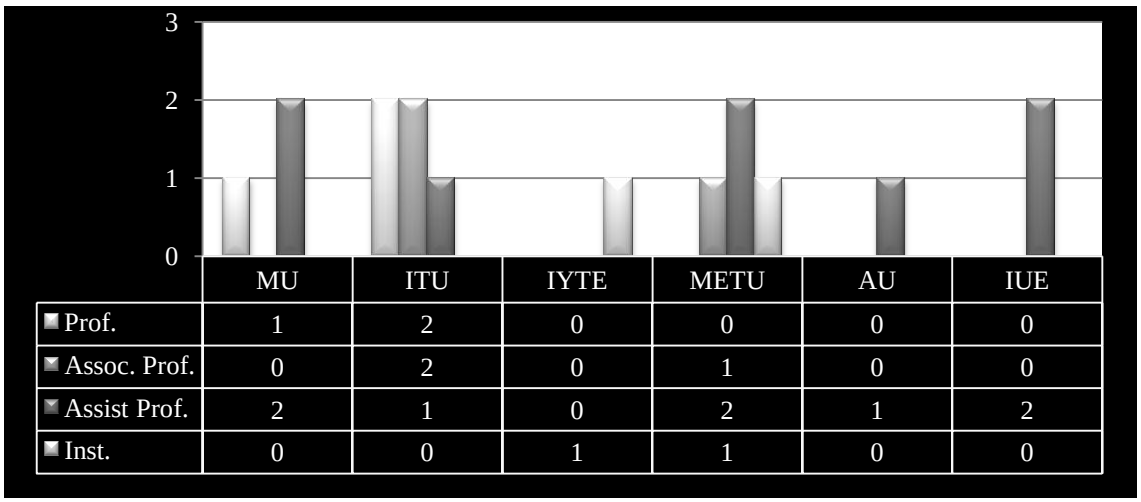


Figure 3.6. Distribution of respondents that took part in the first survey with a publication in the field of ID education.

***Second Survey Study*:** Three academics from MU, five from ITU, one from IYTE, four from METU, one from AU and two from IUE took part out of a total number of sixteen academics (except for the one from MSFAU). The figure below shows the distribution of the respondents with respect to their academic titles.



	MU	ITU	IYTE	METU	AU	IUE
Prof.	1	2	0	0	0	0
Assoc. Prof.	0	2	0	1	0	0
Assist Prof.	2	1	0	2	1	2
Inst.	0	0	1	1	0	0

Figure 3.7. The number of respondents with respect to their academic titles that took part in the second survey.

As indicated in Figure 3.8, seven of the sixteen respondents that took part in the second survey perform administrative duties.

Figure 3.8. Distribution of respondents performing administrative duties.

Table 3.2 gives information concerning respondents' bachelors, masters and PhD/Proficiency in arts degrees.

Table 3.2. Academic backgrounds of the respondents that took part in the second survey.

RESPONDENTS	BACHELOR'S DEGREE IN	MASTER'S DEGREE IN	PhD./ PROFICIENCY IN ARTS
Respondent 1	Industrial Design	-	Industrial Design
Respondent 2	Interior Design	Industrial Design	Interior Design
Respondent 3	Industrial Design	Other Related Discipline	Other Related Discipline
Respondent 4	Industrial Design	Other Related Discipline	Other Related Discipline
Respondent 5	Industrial Design	Other Related Discipline	Industrial Design
Respondent 6	Industrial Design	Interior Design	Interior Design
Respondent 7	Architecture	Architecture	Architecture
Respondent 8	Interior Design	Industrial Design	Industrial Design
Respondent 9	Industrial Design	Interior Design	Industrial Design
Respondent 10	Architecture	Architecture	Architecture
Respondent 11	Industrial Design	Other Related Discipline	Other Related Discipline
Respondent 12	Industrial Design & Interior Design	Industrial Design	Industrial Design & Interior Design (Proficiency in Arts)
Respondent 13	Industrial Design	Other Related Discipline	Other Related Discipline
Respondent 14	Interior Design	-	Interior Design (Proficiency in Arts)
Respondent 15	Industrial Design & Interior Design	-	Interior Design (Proficiency in Arts)
Respondent 16	Architecture	Industrial Design	-

As indicated in Table 3.2, eight of the respondents got their bachelor's degree in industrial design. There are also three respondents with a bachelor's degree in architecture, three in interior architecture and two respondents with a bachelor's degree both in industrial design and interior design disciplines.

Figure 3.9. Distribution of disciplines with respect to the bachelor's degree.

With regard to the master's degree, the distribution of respondents is as follows: four respondents with a degree in Industrial Design, two in Architecture, two in Interior design, and five in other related disciplines. Three Academics do not have a master's degree.

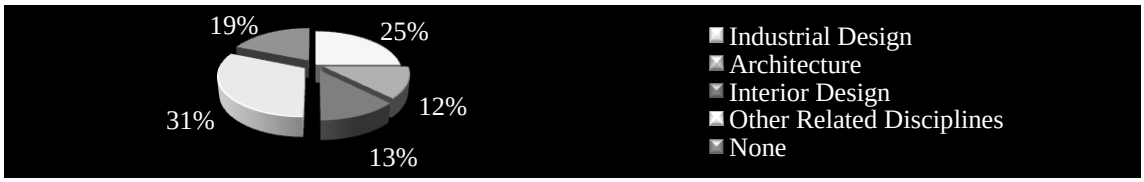


Figure 3.10. Distribution of disciplines with regard to the master's degree.

In addition, out of the thirteen respondents with a PhD degree, five people hold a degree in Industrial Design, two in Architecture, two in Interior Design. Three respondents have a 'Proficiency in Arts' degree in Interior Architecture while three of them do not have a PhD degree.

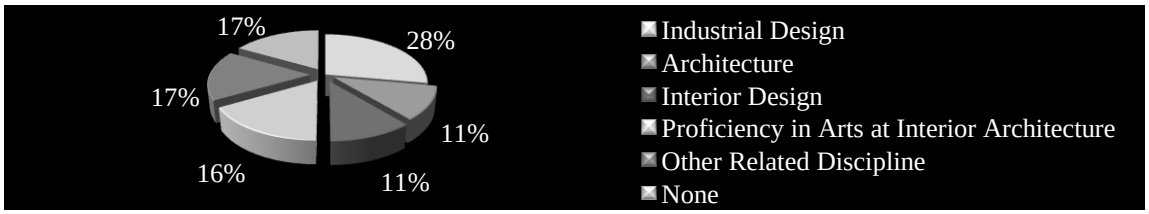


Figure 3.11. Distribution of disciplines with respect to PhD. and Proficiency in Arts.

In addition, most of the respondents are specialized with a publication in the field of ID education. Eleven respondents are specialized with a publication in this research area, while the remaining five are not.

Figure 3.12. Distribution of respondents that took part in the second survey with a publication in the field of ID education.

3.1.2. Master's Degree Programs in ID

The topics included in this section are student quantity, student admission criteria, frequency of updating the curricula, general education philosophies and specialization areas.

First Survey Study: as indicated in Table 3.3, the approximate number of applications, admissions and graduations per year is given. The data is gathered from the academics. The average numbers per year are twenty-four for applications, ten for admissions and seven for graduates (rounded up).

Table 3.3. Respondents' estimates on applications, admissions, and graduations sorted by universities in the first survey.

UNIVERSITIES	APPLICANT STUDENTS	RECENTLY ADMITTED STUDENTS	GRADUATE STUDENTS
MSFAU	5	5	(changes every year)
MU	12-15	5-7	5
ITU	45-50	15-25	5-15
IYTE	30	No admissions since fall 2004	5
METU	30-50	10-20	5-13
AU	10-12	5	1
IUE	15	6-7	-

When the respondents were asked from which disciplines they admit students outside the ID discipline, they all answered that they admit students from different disciplines but the weight is on architecture and engineering disciplines. All universities where respondents teach admit students from these two disciplines. Two of the three respondents in METU said that they do not restrict any disciplines and indicated that their department is an interdisciplinary one, and one respondent was more specific saying they admit students from the departments of architecture, interior architecture, graphics, mechanical engineering, and electrical-electronics engineering. Respondents from AU also said that they have no restrictions on disciplines. According to the survey answers, IUE admits students from the departments of business administration, architecture, interior architecture, mechanical engineering, city and regional planning, textile design and fashion design disciplines. ITU, on the other hand, accepts applications from the fields of engineering, architecture, fine arts and social sciences.

According to the information gathered from one respondent from MU, in early years of the program the discipline range was held wide. After experiencing that the

students were having serious difficulties during the scientific preparation period, the accepted disciplines were limited to architecture, mechanical engineering, ID and fine arts.

In addition, IYTE admits students from the disciplines of industrial ceramics, mechanical engineering, architecture, city and regional planning. A respondent from MSFAU indicated that for every academic year, students from other disciplines are admitted according to that year's needs and vision to conduct interdisciplinary studies. A summary of the topic can be found in Table 3.4.

Table 3.4. Accepted disciplines outside the discipline of ID.

UNIVERSITIES	**ACCEPTED DISCIPLINES**
MSFAU	Disciplines determined according to that year's needs and vision
MU	Architecture, Mechanical Engineering, Fine Arts
ITU	Engineering, Architecture, Fine Arts And Social Sciences
IYTE	Ceramics, Mechanical Engineering, Architecture, City Planning
METU	Architecture, Interior Design, Graphics, Mechanical Engineering, Electrical Engineering
AU	All Disciplines (Statistic, Business, Mechanical Engineering, Cinema, Mathematic Etc.)
IUE	Business, Architecture, Interior Design, Mechanical Engineering, City Planning, Textile Design, Fashion Design

Each year students who graduate from ID programs can head for different areas. Respondents were asked to give a ratio concerning the areas. That is, they were asked if these areas are classified under academic and industrial market groups. These ratios can be seen in Table 3.5.

Table 3.5. Distribution of alumni with respect to the respondents estimates in the first survey.

UNIVERSITIES	**DISTRIBUTION OF ALUMNI**		
	Academic (%)	**Industry (%)**	**Other (%)**
MSFAU	30	60	10
MU	10	70	20
ITU	-	-	-
IYTE	25	75	-
METU	30	60	10
AU	20	80	-
IUE	50	50	-

Master's degree programs should be updated and necessary changes should be made in accordance with the developing technology and knowledge. The respondents were asked how frequently their master's degree programs are updated; and the answers are gathered in Table 3.6. In addition, the respondent from IYTE did not answer this

question because no students are admitted to the master's degree program. Answers of respondents from ITU are given separately.

Table 3.6. Frequency of the curricula being updated according to the universities.

UNIVERSITIES	FREQUENCY OF THE CURRICULA BEING UPDATED
MSFAU	Every semester
MU	Once per 2 years
ITU	Once per 10 years (Last update in 2002)
IYTE	Upgrading curriculum will be offered in the fall semester 2009
METU	Once per year
AU	Once per 3 years
IUE	Once per year

Finally, respondents were asked about the educational philosophy and specialization area of their universities' master's program in ID, which is also the last question of the section. The answers of the three respondents from METU indicated that their master's degree program is more concentrated on research and thesis, and is intended for raising academics. Also, it was the respondents' common opinion that the program gives opportunity for interdisciplinary study groups and a common language of design is formed among these students. Again, the information gathered from two of the respondents indicates that specialization in the sub-branches of design is not possible for this program. According to this information, the education philosophy of this program can be defined as:

> The program is research based and it is open to different disciplines. Our aim is to give a notion that provides a common language for people from other disciplines and designers with practice and to provide understanding for people from other disciplines about how decisions are made in the design process. Topics are weighted over specialization systematic. These topics are Design Methods, User Focused Design, Analyzing the Current Situation of ID Practice in Turkey, Culture-Design Relationship, Design Management and Process, Design Education, Interaction Design and Automotive Design.

In ITU, the program is intended for academic studies. Particularly, the topics chosen for the theses are intended for the future. Another point is that gathering people from other disciplines under a single roof is considered to be an advantage. Embracing the same view, IYTE added academic familiarity, and design experience is considered in student admission criteria.

The answer of the respondent from IUE also emphasized the issue of gathering people from different disciplines and explained the program's philosophy as:

> In Design Studies master's degree program, our students conduct thesis/project studies in specialization areas of their own choice. In the program, gathering design disciplines under a

> single roof, an upper title is formed and it is aimed to provide research and application focused specialization by interaction.

According to the information taken from the respondents from MU, their effort and mission are to combine the education provided with the students' original disciplines.

On the other hand, again based on the information from the respondents, AU differs from others by its perception of education. The university places a great deal of importance on collaboration with the industry and they are in joint projects with big companies in the industry. Their education philosophy can be explained as:

> With regard to its educational philosophy AU focuses on university-industry collaboration. This approach is also true for master's education. Generally, in the courses, we conduct projects with industrial organizations like Ford Otosan-Arçelik etc.

Additionally, with respect to its education philosophy, MSFAU chose to train students that are successful both in practice and in theory.

Second Survey Study: Respondents were asked to give a ratio. If they did not keep statistics about the areas classified as academic and industrial market groups, they were asked to come up with approximate estimates about the admissions. The data was gathered from the academics taking part in the survey study.

Table 3.7. Respondents' estimates on applicants and distribution of alumni according to universities in the second survey.

UNIVERSITIES	**APPLICANT STUDENTS**	**DISTRIBUTION OF ALUMNI**		
		Academic (%)	**Industry (%)**	**Other (%)**
MU	5-15	10	60	30
ITU	30-50	35	50	15
IYTE	5-15 (until 2003-2004)	25	60	15
METU	15-50	40	50	10
AU	30-50	-	-	-
IUE	15-30	No graduates yet but academic career aimed		

Moreover, in the second survey study, the question "What definition below corresponds to the mission regarding the Master's Degree program in your department?" was left out of the study as the respondents didn't achieve unanimity on this question (see Appendix C and D).

3.2. Comparative Analysis of Master's and Bachelor's Degrees

This section is concerned with the advantages of the master's study over undergraduate study in ID as well as the differences between them. The respondents were asked to discuss these issues in the first and second survey studies.

***First Survey Study*:** The common view was that master's education is more theoretical and the undergraduate one is more focused on practice, and that the programs' are designed in accordance with the needs of the industry. Also, all respondents agreed that master's degree programs are for students wanting an academic career and they provide these people with specialization and knowledge in their area as well as skills like decision making based on concrete data and sorting the results, systematic and interrogative studying, critical and analytical thinking and the ability to report these thoughts in the form of a publication. Future academics will be trained in this way.

In addition, from a different point of view, two respondents both indicated that undergraduate and master's degree programs are in precedence and in a complementary relationship. One respondent argued that the master's degree program is intended for an academic career, and it is also an advantage for people who seek a job in the industry.

In the master's degree programs, there are students from other disciplines as well as ones from the discipline of ID. The differences and advantages were indicated by the seven respondents. According those academics, students from different disciplines or universities come and work together forming a synergy just as in the industry. Some students also have experience in the industry, and this brings new approach and experience to the studies.

Three respondents emphasized that students with higher consciousness are applying for the master's degree programs and claimed that students' consciousness develop further with the program. Therefore, graduate education is conducted on a higher level and understanding. One respondent argued that education can be provided in a more efficient way with fewer students.

Second Survey Study: Part I, which is entitled "The advantages of master's degree study over undergraduate study in ID in Turkey", was formed with the help of

the data gathered from the first survey study. The points raised in the section are as follows:

1. Master's degree programs have mostly been designed towards theory and research.
2. Master's degree programs aim to raise graduates wanting to pursue an academic career.
3. Master's degree study provides students with specialization and extensive knowledge in the field of industrial design.
4. Master's degree study helps students to fully understand the process of analysis-synthesis equips them with the ability to make a decision based on reliable data and compile the results.
5. Master's degree study is more effective than undergraduate study as it equips students with such skills as systematic, critical, and analytical thinking, planning, and writing, which would enable them to produce academic publications.
6. Master's degree programs serve as a sequel to undergraduate programs of the same university.
7. For graduates wanting to work in the industry, a graduate degree is a plus since they have a greater chance of getting a job.
8. Master's degree programs enable graduates coming from different universities/disciplines to gain experience in working together in the industry.
9. Master's degree programs provide a more "advanced" education than graduate programs.
10. The maximum number of students admitted to the Master's degree programs is deemed appropriate, which improves the quality of graduate education.

The histogram graph (see Figure 3.13), which was prepared to make a general assessment of the statements in Part 1, shows the frequency and cumulative percentages of the level of agreement according to the Likert scale. With respect to this, 90 % of the respondents "agreed" with the statements. This is followed by 55% of the respondents who "absolutely agreed". Therefore, 66 % either "agreed" or "disagreed" with the statements, which reveals a high level of agreement concerning the statements in the second survey study.

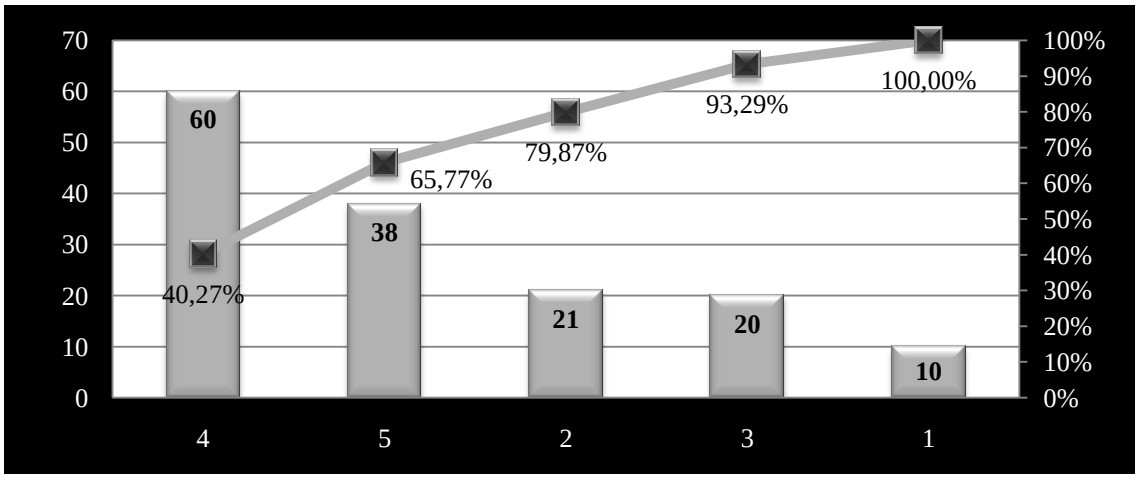
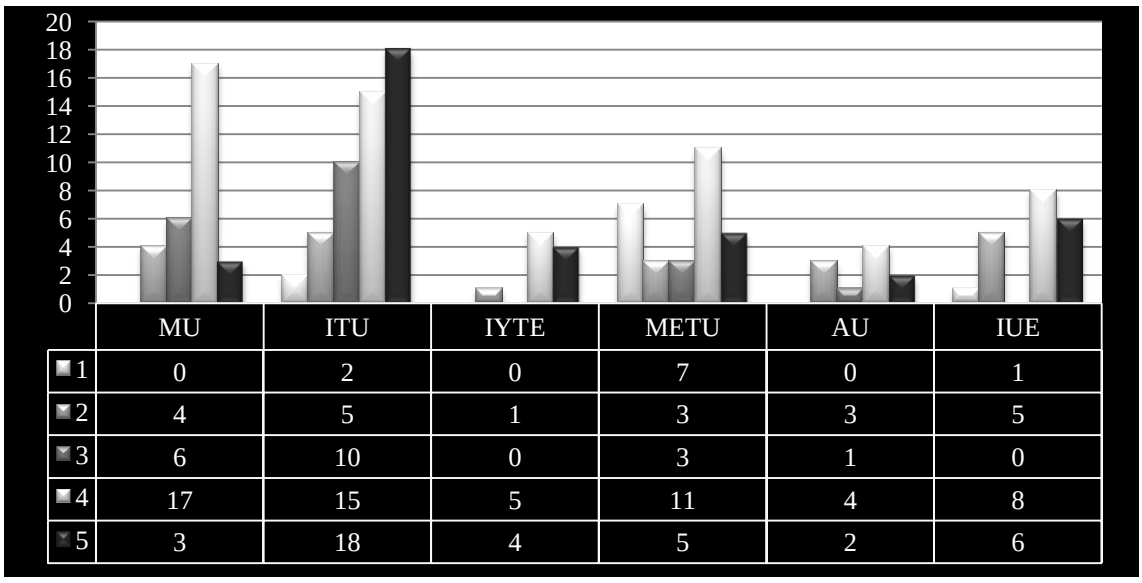


Figure 3.13. Cumulative-frequency histogram of Part I.

The answers given by the respondents to the questions in this section were analyzed in separate graphs, which showed their universities, their academic titles, and whether they specialized in ID education or not.

In Figure 3.14, it can be seen that the highest percentage of respondents that "absolutely agreed" with the statements were those from ITU. On the other hand, respondents from ITU and MU "agreed" with most of the statements. Therefore, the level of agreement can be ranged as ITU, MU, METU, IYTE, and AU respectively.

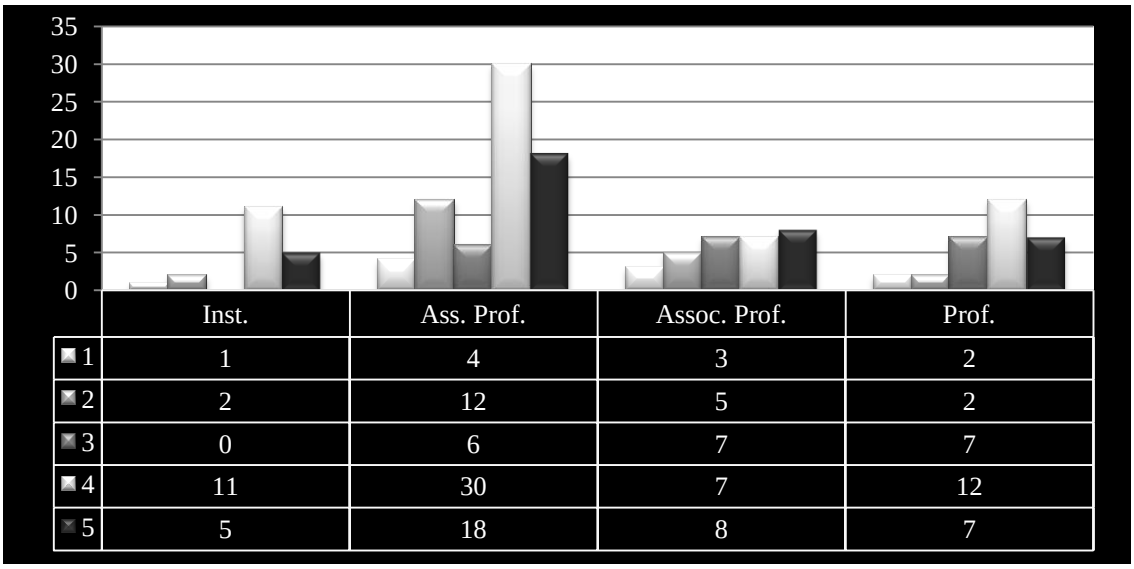


	MU	ITU	IYTE	METU	AU	IUE
1	0	2	0	7	0	1
2	4	5	1	3	3	5
3	6	10	0	3	1	0
4	17	15	5	11	4	8
5	3	18	4	5	2	6

Figure 3.14. The evaluation of the answers of Part I according to the universities.

When the answers given by the respondents to the questions in this section are analyzed in terms of their academic titles, it can be said that respondents with the highest level of agreement (those that "agreed" or "absolutely agreed" with the

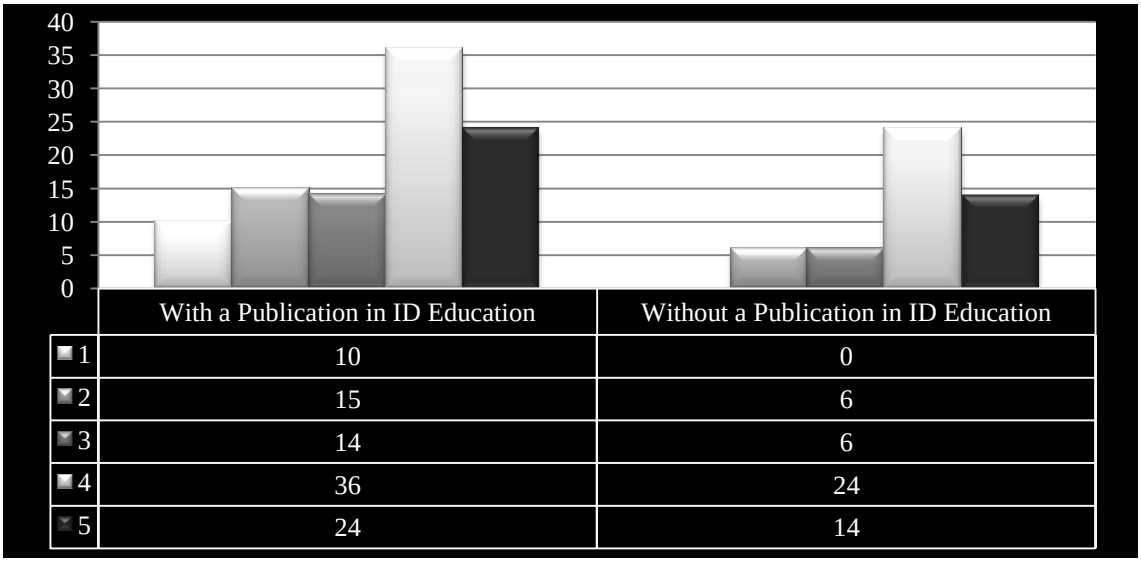
statements) were the assistant professors. In this regard, assistant professors were followed by professors, instructors and associate professors respectively.



	Inst.	Ass. Prof.	Assoc. Prof.	Prof.
1	1	4	3	2
2	2	12	5	2
3	0	6	7	7
4	11	30	7	12
5	5	18	8	7

Figure 3.15. The evaluation of the answers in Part I according to respondents' academic titles.

In Figure 3.16, which shows all the answers concerning whether the respondents are specialized in ID education or not, it can be seen that those with specialization mostly "agreed" with the statements, whereas there are fewer statements which they "absolutely agreed" with. On the other hand, the respondents without a publication in this field "agreed" with a fewer number of statements. The result that can be drawn from this is that the level of agreement is high among respondents with a publication on ID master's education.



	With a Publication in ID Education	Without a Publication in ID Education
1	10	0
2	15	6
3	14	6
4	36	24
5	24	14

Figure 3.16. The evaluation of the answers in Part I concerning specialization in ID education.

The statistical assessment that was made in order to figure out which statements indicated unanimity is given in Table 3.8 and 3.9.

Table 3.8. Distribution of respondents' answers to Part I.

PART I STATEMENTS	(5) Absolutely Agree		(4) Agree		(3) Not sure		(2) Disagree		(1) Absolutely Disagree		Total Respondents
	%	Respondents	%	Respondents	%	Respondents	%	Respondents	%	Respondents	
Item 1	27	4	53	8	13	2	7	1	0	0	15
Item 2	20	3	40	6	20	3	13	2	7	1	15
Item 3	20	3	40	6	13	2	13	2	13	2	15
Item 4	33	5	47	7	7	1	7	1	7	1	15
Item 5	67	10	27	4	0	0	0	0	7	1	15
Item 6	0	0	33	5	13	2	47	7	7	1	15
Item 7	7	1	40	6	27	4	20	3	7	1	15
Item 8	7	1	50	7	21	3	21	3	7	1	14
Item 9	47	7	33	5	7	1	7	1	0	0	15
Item 10	27	4	40	6	13	2	7	1	13	2	15

As indicated in Table 3.8, the section of the second survey entitled "the Differences between Having a Master's Degree and Bachelor's Degree" is rated through the items 1 to 10. Item 5 has been rated as 5 ("absolutely agree") by the majority of academics (67 %) and the Mean value is 4, 47, which stands out among the other items.

Table 3.9. The statistical calculations of the answers of Part I.

PART I STATEMENTS	MEAN	STANDARD DEVIATION	MEDIAN	MODE
Item 1	4,00	0,85	4	4
Item 2	3,53	1,19	4	4
Item 3	3,40	1,35	4	4
Item 4	3,93	1,16	4	4
Item 5	4,47	1,06	5	5
Item 6	2,73	1,03	2	2
Item 7	3,20	1,08	3	4
Item 8	3,27	1,10	4	4
Item 9	4,29	0,91	4,5	5
Item 10	3,60	1,35	4	4

Both item 1 and item 8 have been rated as 4 ("agree") by the majority of academics (53 %, 50% respectively). Besides, mean values of items 1 and 8 are 4.00, 3.27 respectively. However, the standard deviation value of item 8 is above 1.00. This

shows that 53% of the respondents agreed with this statement whereas some respondents disagreed with it.

When the mean values are analyzed (see Table 3.9), it is seen that fourteen out of fifteen people 'agreed' or even "absolutely agreed" with item 9, which reveals unanimity among respondents.

On the other hand, items 3 and 10, which have the highest standard deviation value, are the items that revealed the least unanimity among respondents.

In conclusion, according to respondents, master's degree programs have mostly been designed towards theory and research that equips students with academic skills. Besides, these programs provide more "advanced" education than undergraduate ones, which enable graduates coming from different universities/disciplines to gain experience in working together in the industry.

3.3. Analysis of Educational Systems in the Master's Degree Programs

After getting the opinions about the advantages of master's degree education over undergraduate education, the researcher asked the respondents to evaluate educational systems of ID master's degree programs in terms of the weaknesses and strengths both in the first and second survey studies.

3.3.1 Weaknesses of the Master's Education

***First survey study*:** By assessing past and present situations of ID master education, the researcher gathered the respondents' opinions under the category of weak/negative developments and indicated their reflection on the current education system.

Concerning the departments and academic staff, the agreement among the respondents was about the insufficient and diminishing academic personnel quota. Four of the respondents indicated that the situation is because of the hardships regarding the training of the academics and the appointment and promotion criteria of YOK. Additionally, three respondents indicated that the government is limiting the academic staff and two respondents indicated that students do not prefer an academic career because of the conditions of the academic life, which is one of the reasons for the

weakness of the academic personnel. In addition, seven respondents emphasized that the heavy workload of the academic personnel reduces productivity.

Two respondents added that bureaucratic limitations caused by the government and university makes it harder to offer new programs and joint programs. They also complain about the same limitations which cause experienced people in the industry to stay outside the programs and for this reason, the programs are away from professional life. A respondent explained the situation as:

> When a new master's degree program without thesis is offered, professionally experienced people are required and there is a problem getting them. According to the current regulations and university traditions, PhD degree is required for an instructor to teach in a master's degree program. In this regard, the difficulty in finding people both with professional experience and with PhD degree creates the problem and it should be overcome. Design disciplines should create appropriate structures for themselves.

Three respondents emphasized the necessity of defining the aims and objectives of the programs in order for them to be developed and enriched. One of these three respondents indicated that specialized programs are very few because they cannot chose between design and research weighted education. Another respondent complained that most of the theses are research based and there are not sufficient theses about practical issues and problems.

Six of the respondents agreed that neither the universities nor the departments spare enough for master's degree programs; and students are not provided with sufficient support. Three respondents touched upon the lack of infrastructure and equipment and three respondents mentioned the lack of infrastructure and lack of special spaces and labs that should be provided for students.

Concerning the curricula, respondents reached unanimity on the topic. However, each of them states the weaknesses from a different point of view. With respect to this, four respondents touched upon the weakness of the academic staff, two of them added that the programs are limited concerning the competence of the academic staff, and another two argued that because of the limited competence of the academic staff, some courses are closed or made inactive.

Another significant issue is the curricula being insufficient due to Turkish industry and design culture needs, as well as the lack of updating. Three respondents argued that their views on the programs could not meet the needs of the Turkish industry and are affected by external factors, and another three indicated that there is not enough updating or evaluation of curricula in this regard.

In addition, one respondent complained about the lack of quality accreditation and suggested forming the department's terminology. The respondent explained the situation as:

> There is a weakness concerning quality accreditation. Because of the increase in quantity of state and private universities, which provide both undergraduate and graduate education, the minimum requirements and terminology of the department should be re-determined.

In addition, two respondents complained about the lack of courses that provide specialization and the course densities, and two other respondents complained about the fact that interdisciplinary studies do not reflect on the curricula and defined it as a weakness. On the other hand, one respondent emphasized that there is no difference or development in the curricula.

Concerning the student quantity and quality, seven respondents made negative statements. Five of them agreed on the weakness of student backgrounds. Two of them indicated that this weakness is caused by the inadequate education system and two other respondents defined these weaknesses as the lack of research, writing and expression skills because of the test system. Additionally, one respondent claimed that there are people who lack 3D thinking and visual knowledge in the student profile because of the termination of talent examinations.

Another point is that the student profile is in a weak position and should be diversified. Two respondents claimed that ALES system creates injustice for students from social sciences and engineering departments and for the both areas the system affects the students in a negative way, therefore being the most important reason for the lack of providing student diversity.

Five respondents touched upon the fact that the student application profile fails to define its aims. While two of them indicated that the situation is caused by such people as those trying to avoid military service, another two emphasized that the situation is because of the education system, which makes people who could not enter ID undergraduate programs try to get into graduate programs.

In addition, two respondents talked about the academic advisors who cannot get in-service education and develop themselves, causing students to graduate without the necessary knowledge. Moreover, two respondents complained that students are choosing work life over education; therefore, the program cannot reach many successful graduates.

Concerning the relations with the industry, five respondents stated their views about the lack of university-industry relationship of the master's program in ID and all agreed that the master's programs' collaboration with the industry is below that of the undergraduate programs. Nevertheless, each of them listed different causes.

In this regard, three respondents touched upon the fact that the firms have not been able to form an understanding of collaboration yet, and two respondents mentioned that collaboration is limited because most of the education is research and thesis based. They also added that there is a lack of infrastructure. One respondent also indicated that the significance of interdisciplinary studies is still not perceived by the industry.

***Second Survey Study*:** Part II, which is entitled "The Weaknesses of Master's Degree Programs in Industrial Design in Turkey", was formed with the help of the data gathered from the first survey study. The points raised in the section are as follows:

1. Excessive workload of the present academic staff is decreasing efficiency.
2. The academic staff is insufficient in numbers, and the number of academics in the field is even decreasing. However, not much is done to increase the number.
3. Since departmental courses are determined in accordance with the majors of the present academics, they are temporary. For this reason, some courses are never available, and some of them are left out of the curricula.
4. Since only academics with a doctoral degree can teach in the master's degree program, students are deprived of the practical support of designers actively working in the industry.
5. The present master's degree programs have not differed from one another since they cannot choose between practice and research based education.
6. There are not enough practice-based theses completed in the field since the majority of them are theory-based.
7. Since master's degree programs do not get enough financial support, the infrastructure is not very strong.
8. The master's degree courses fail to meet the needs of the national industry and design culture, and the curricula are not updated.
9. The programs lack quality accreditation.
10. The weaknesses of the students enrolled in the program are due to the ills of the current educational system. Since students are accustomed to taking multiple-choice tests, they have trouble expressing themselves orally and in writing.

11. The profile of the students admitted to the master's degree program needs diversifying. That is, students coming from diverse disciplines should be admitted to the program.
12. Not all students enroll in the program for their enthusiasm about the field. For instance, some students get into the program for such reasons as postponing the military service or being afraid of working in the industry straight after graduation.
13. Some students who are enrolled in the program are also working, and they have difficulty finding time for their studies. This decreases the quality of education in the program.
14. Since firms underestimate collaboration between disciplines, university-industry collaboration is less effective in master's degree programs than undergraduate ones.
15. Due to the lack of advanced laboratories, university-industry collaboration is less effective in master's degree programs than undergraduate ones.

In Figure 3.17, which was prepared to make a general assessment of the statements in this section, it can be seen that the level of agreement was high among the respondents. (This was also the case in Part I). Similarly, 60 % of the respondents "agreed" with the statements. With respect to these percentages, if the cumulative percentages are analyzed, the level of agreement amounts to 61%.

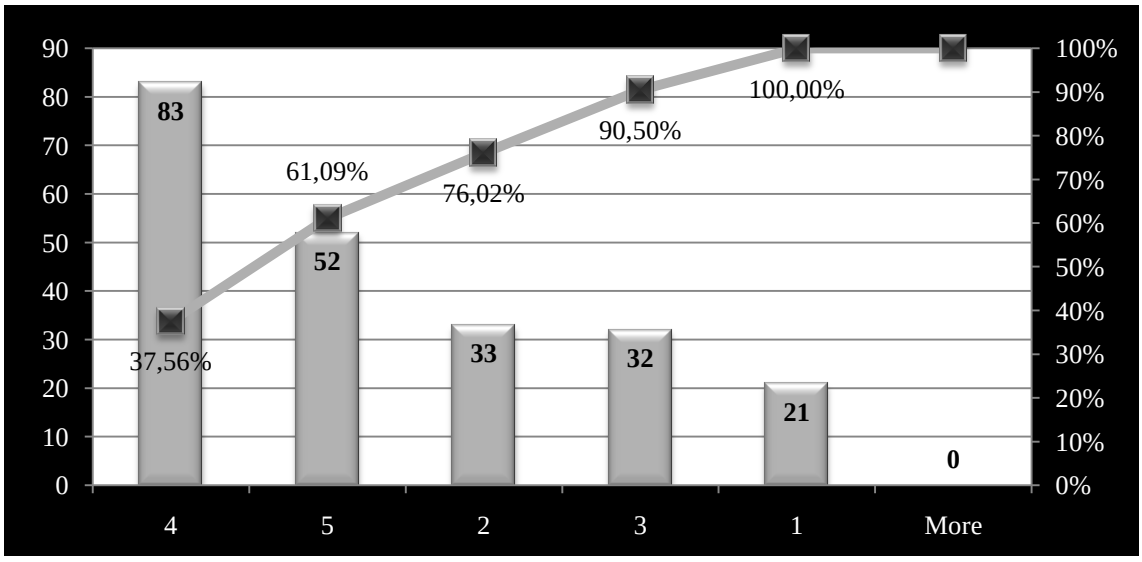
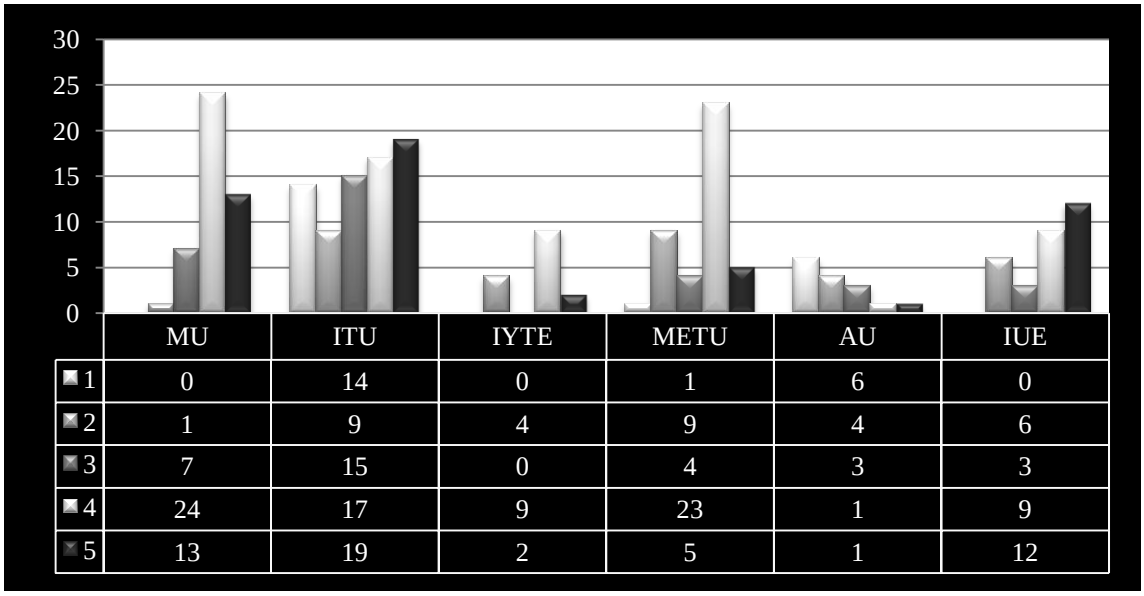


Figure 3.17. Cumulative-frequency histogram of Part II.

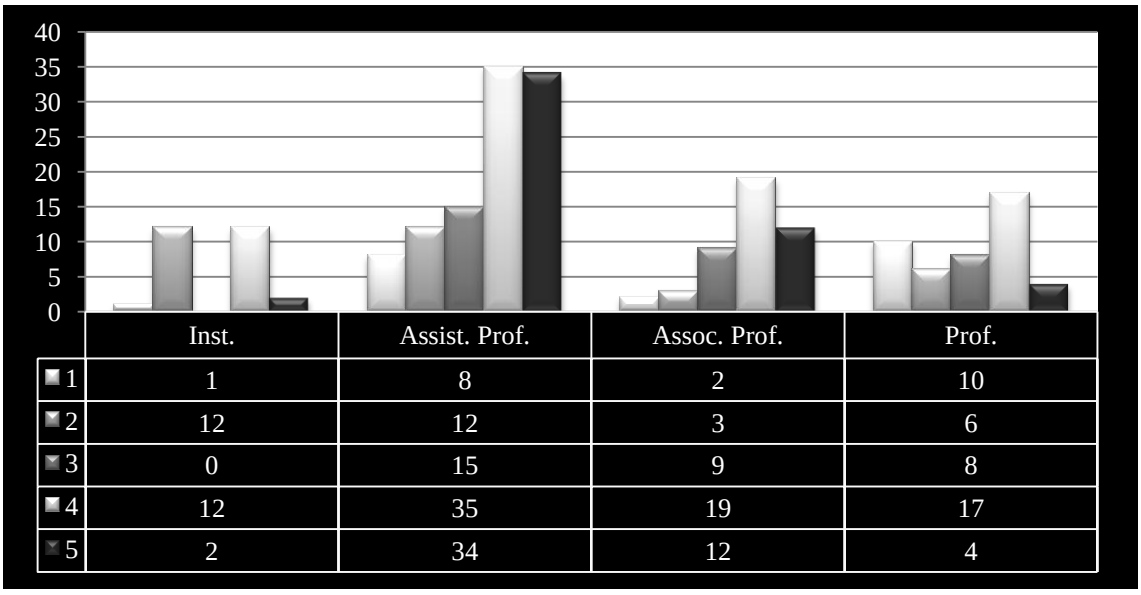
However, if the answers given by the respondents to the questions in Part II are analyzed in terms of their universities, it can be said that respondents from MU and METU had the highest level of agreement respectively, whereas those from AU have the lowest. In addition, the highest percentage of respondents that "absolutely agreed" with the statements came from those from ITU.



	MU	ITU	IYTE	METU	AU	IUE
1	0	14	0	1	6	0
2	1	9	4	9	4	6
3	7	15	0	4	3	3
4	24	17	9	23	1	9
5	13	19	2	5	1	12

Figure 3.18. The evaluation of the answers in Part II according to the universities.

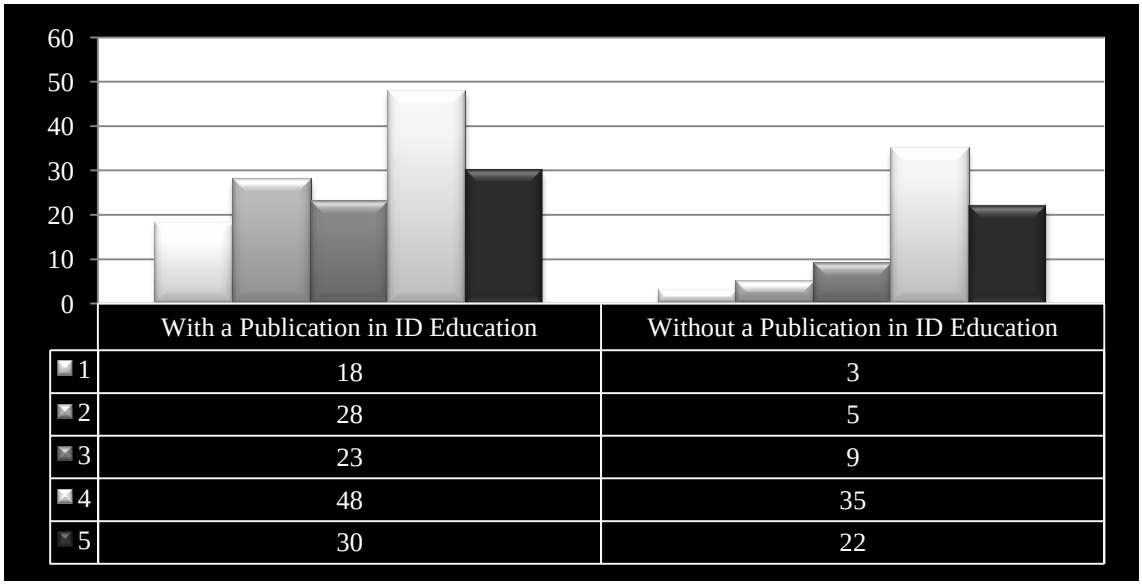
When the academic titles are analyzed, it can be said that respondents with the highest level of agreement were the assistant professors, and that associate professors, professors, and instructors followed assistant professors in this regard.



	Inst.	Assist. Prof.	Assoc. Prof.	Prof.
1	1	8	2	10
2	12	12	3	6
3	0	15	9	8
4	12	35	19	17
5	2	34	12	4

Figure 3.19. The evaluation of the answers in Part II according to respondents' academic titles.

If the answers given to the questions in Part II are analyzed in terms of respondents without a publication in the field of ID Education, in Figure 3.20, it can be seen that those with a publication in this field had a high level of agreement concerning the statements in Part II. On the other hand, it can also be pointed out that they had different and opposing views on certain statements.



	With a Publication in ID Education	Without a Publication in ID Education
1	18	3
2	28	5
3	23	9
4	48	35
5	30	22

Figure 3.20. The evaluation of the answers in Part II whether they specialized in ID education or not.

After a general assessment of the Part II was made, the statistical assessment that was carried out in order to figure out which statements indicated unanimity and which ones indicated opposing views is given in Table 3.10 and 3.11.

Table 3.10. Distribution of respondents' answers to Part II.

PART II STATEMENTS	(5) Absolutely Agree		(4) Agree		(3) Not sure		(2) Disagree		(1) Absolutely Disagree		Total Respondents
	%	Respondents	%	Respondents	%	Respondents	%	Respondents	%	Respondents	
Item 1	53	8	33	5	13	2	0	0	0	0	15
Item 2	40	6	47	7	7	1	7	1	0	0	15
Item 3	27	4	33	5	13	2	20	3	7	1	15
Item 4	20	3	40	6	20	3	13	2	7	1	15
Item 5	13	2	20	3	40	6	20	3	7	1	15
Item 6	20	3	40	6	13	2	13	2	7	1	15
Item 7	47	7	27	4	0	0	13	2	13	2	15
Item 8	14	2	29	4	21	3	14	2	21	3	14
Item 9	20	3	40	6	27	4	0	0	7	1	15
Item 10	27	4	33	5	13	2	20	3	7	1	15
Item 11	7	1	20	3	13	2	27	4	33	5	15
Item 12	0	0	60	9	7	1	27	4	7	1	15
Item 13	33	5	40	6	13	2	13	2	0	0	15
Item 14	20	3	40	6	7	1	20	3	13	2	15
Item 15	7	1	53	8	7	1	13	2	13	2	15

In the second survey, in the section entitled "The Weaknesses of Master's Degree Programs in Industrial Design in Turkey" the statements are rated 1-15. Items 1 and 2, with the mean values of 4.40 and 4.00 respectively and with their standard deviation value that is below 1, reveal unanimity among the respondents (see Table 3.11).

In addition, what attracts attention in item 1 is that the median and mode values are 4 and 5 respectively, and when the mean value is low, unanimity is achieved (between 'agree' and 'disagree'). However, another point is that the high standard deviation value concerning this item shows that respondents expressed opposing thoughts about it.

In this part where the high standard deviation value is observed, items 3,7,8,10,11 and 14 reveal very little unanimity among respondents. On the other hand, 40% of the respondents were "not sure" about item 5.

Table 3.11. The statistical calculations of the answers of Part II.

PART II STATEMENTS	MEAN	STANDARD DEVIATION	MEDIAN	MODE
Item 1	4,40	0,74	5	5
Item 2	4,20	0,86	4	4
Item 3	3,53	1,30	4	4
Item 4	3,53	1,19	4	4
Item 5	3,13	1,13	3	3
Item 6	3,57	1,22	4	4
Item 7	3,80	1,52	4	5
Item 8	3,00	1,41	3	4
Item 9	3,71	1,07	4	4
Item 10	3,53	1,30	4	4
Item 11	2,40	1,35	2	1
Item 12	3,20	1,08	4	4
Item 13	3,93	1,03	4	4
Item 14	3,33	1,40	4	4
Item 15	3,29	1,27	4	4

In conclusion, with regard to the weaknesses of the master's degree program, it could be said that 'problems concerning the academic staff' create unanimity among respondents. That is, excessive workload of the present academic staff is decreasing efficiency, what is more, they are insufficient in numbers, and the number of them in the field is even decreasing. However, not much is done to increase it. Another weak point is that "master's degree programs do not get enough financial support, and also the infrastructure is not very strong," which 74% of the respondents "absolutely agreed" with.

3.3.2 Strengths of the Master's Education

The strong/positive aspects are discussed in this section (depending on the data gathered from the first survey study) by means of the assessment of the past and present situation of master's education in ID.

***First Survey Study*:** Concerning the departments and academic staff, most of the respondents agreed that academic activities are in a good course and academic quality is improving, but they evaluated these improvements from different points of view. In that

regard, seven respondents indicated that academic infrastructure is improving and two of them mentioned that there is an increase in the publications and the people with PhD.

With respect to that, five respondents commented about the increase in the number of academics that study abroad and the fact that more internationally competitive academics are being trained. Three of these five respondents also mentioned that the education is improving in accordance with the world standards owing to the contribution of these academics. One respondent strongly emphasized the fact that some universities in Turkey have better technical and academic infrastructure than most of the universities abroad. Another point mentioned by the respondent is the diversity in the department owing to the support provided by the academic personnel from other departments and the contribution of academics from other disciplines. One of the respondents that commented on this situation emphasized the fact that academics' taking place in juries of different departments' academic activities contribute to the communication between departments. In addition, the same respondent added that this situation also contributes to variety concerning the topics of the theses.

In addition, respondents' common view was that the departments' facilities have been improved and they are in a good course. Two respondents indicated that publications are more easily accessible now and university libraries are better. Three respondents explained that connections with universities abroad have increased and students are having international experience through exchange programs. Moreover, two of these three respondents added that relationship with the industry is improving.

In addition, four respondents indicated that the quality of the technical equipment at the department has improved and new workshops and labs have been built. Therefore, one respondent indicated that "Usability Lab at METU: This lab was built for research. After this lab was built, there became more theses on the topics of ergonomics and human factors."

Two respondents touched upon the increase in the specialization areas and the growing interest in the topics of usability interaction design and automotive design.

Concerning the curricula, the common view among the respondents concerns the variety of courses and improvements made in the course contents. In this regard, respondents defined the positive aspects of the programs by giving examples. The most common view, which was indicated by six respondents, is the increase in the electives through innovative curricula. Four respondents mentioned that new themes are taking place. A respondent gave an example of such topics as: "sustainability, usability of the

product and consumer" and another respondent talked about "Computer aided design, product marketing and design management". On the other hand, a respondent indicated that topics like local design, which promotes universal understanding, are covered, and such topics are good course materials for the future curricula.

In addition, two respondents indicated that the master's education allows students to study whatever research areas they want to, and one of these two respondents made a further explanation:

> No matter in which area the student wants to carry out research, there should be different programs to choose for specialization. This should be organized in accordance with the needs of design education in Turkey.

Moreover, two other respondents pointed out that design discipline is enriched by the courses from other disciplines, which allows for teamwork. On the other hand, another respondent gave MU example that the university gives students from other disciplines the chance to meet courses like general art philosophy and art interpretation.

Another point concerning the curricula is that three respondents said theoretical and research based courses make up the strong aspects of the master's education, whereas another respondent argued that it is the practice based courses that form the strong aspects of it.

Concerning the student quantity and quality, what all the respondents seemed to agree about is the improvement in the student profile. They all said that students make wiser choices, which leads to better student quality. One of the respondents brought up the fact that student profiles have been developed with the contribution of the directors of leading companies, and another respondent pointed out that the students keep up with technological developments and that they enroll in the program with substantial knowledge of the required computer programs. The second respondent also said that innovative and creative students enrolled in the program contribute to the national and international competition as well as to the formulation of effective theses.

As for the quality of the students, the second respondent pointed out that the studies carried out by the students are different from those carried out in the past and that they are presented in conferences. On the other hand, six of the respondents were of the opinion that the increase in the number of students and the popularity of the program brought about the demand for the program. For this reason, as three of those respondents put it, the number of students coming from other disciplines has risen,

which has lead to diversity. Another respondent also pointed out that this diversity has brought about a better quality of students.

On the other hand, as two of the respondents suggested, students apply for the graduate program in order to get a better job. That is to say, most students regard this program as a career path.

Concerning the relations with the industry, what nine of the respondents agreed with was the fact that the relations between graduate programs and the companies have improved. Furthermore, one of the respondents touched upon the rise in the demand for furniture packaging and administration, while another talked about the benefits of industrial relations and made the following list:

> Getting technical support
> Conducting R & D / documentation
> Carrying out mutual projects, which are likely to turn into benefits
> Developing positive new visions

Four of these nine respondents were of the opinion that companies have become more conscious since they have acted as sponsors in educational projects. Another respondent explained this growing consciousness in this way: "We have got an industry that needs ID for competition, development, and sustainability. Consciousness of this need is growing indeed, particularly among manufacturers in the industry."

Second Survey Study: Part III, which is entitled "The Strengths of Master's Degree Programs in ID in Turkey", was formed with the help of the data gathered from the first survey study. The points raised in the section are as follows:

1. The profile of the academic staff is improving as the number of internationally renowned academics who come back to universities in Turkey upon completing their studies abroad is increasing.
2. There is a considerable increase in the number of national and international publications in this discipline.
3. An interdisciplinary educational policy has been embraced. Academics from other disciplines can now teach in the department.
4. Access to International publications has become easier since university libraries have become more extensive and diverse in terms of the number of publications and databases.

5. Departments now have connections with those abroad, and exchange programs have become available, which enable students as well as faculty members to experience different countries and cultures.
6. Technical facilities such as new workshops and laboratories have been launched.
7. The areas of specialization have improved and usability, interaction design, and automotive design have become more important.
8. Interdisciplinary programs have brought a more flexible educational scheme.
9. Now that the program of industrial design is recognized, students coming to the departments are more eager and motivated. This increases quality.
10. Increase in the number of students coming from diverse disciplines has improved the student profile.
11. A graduate degree in industrial design has gained importance in job applications, and students have begun to see this program as a career path.
12. Since competition in the industry has become more intense, firms have become more conscious and begun acting as sponsors in educational projects.

The Figure 3.21 describes the cumulative frequency of the answers rated overall in the third section. When the answers are analyzed in the third section, it can be said that 72 % of the respondents rated the statements as 5 (“absolutely agree”) and 4 (“agree”), which shows their agreement with the statements in general. As it was the case in the other sections, the level of agreement in this section is pretty high. This shows that respondents agreed with most of the statements in this section.

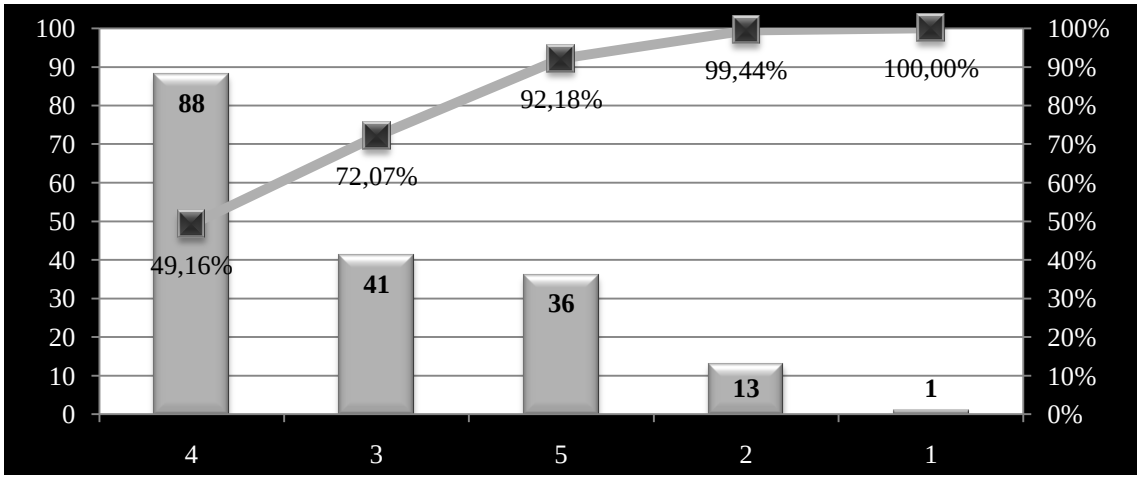
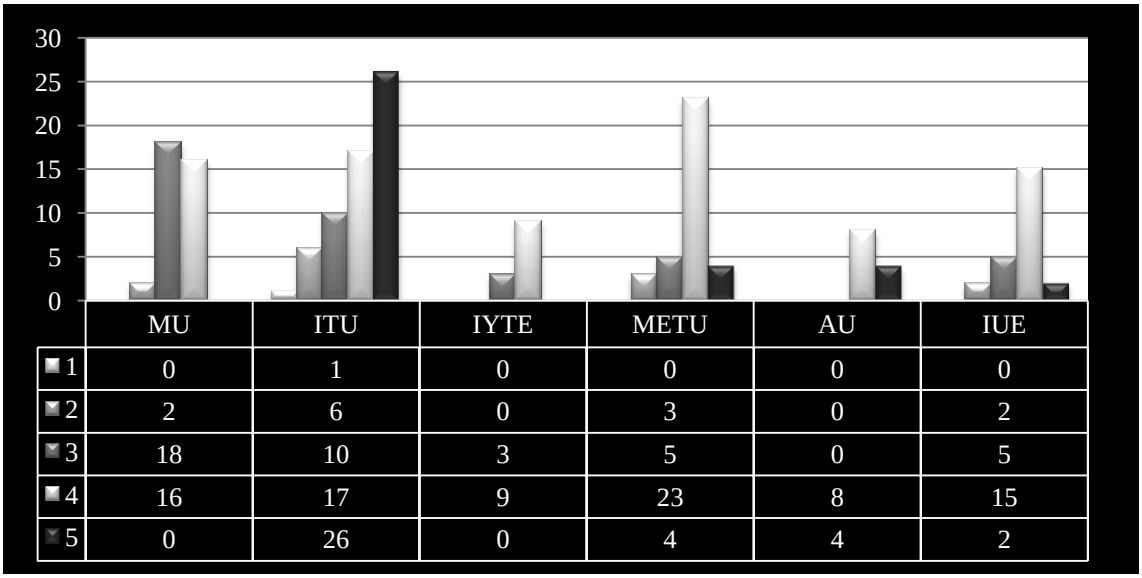


Figure 3.21. Cumulative-Frequency Histogram of Part III.

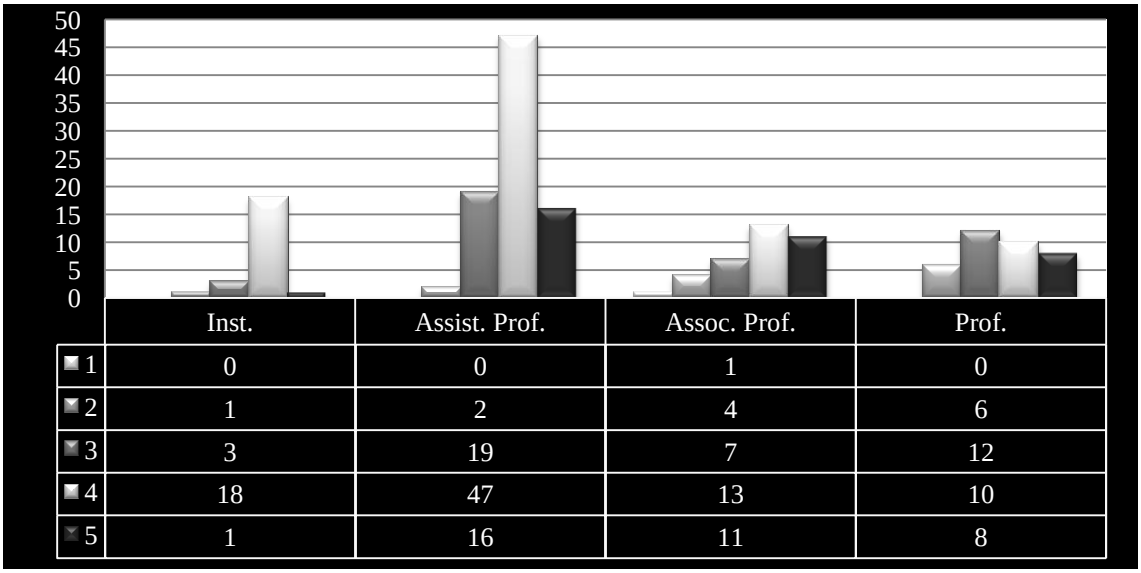
In this section, where the level of agreement is 72%, respondents from ITU rated as “absolutely agreed” with most of the statements. Similarly, there was a high level of agreement among respondents from METU. On the other hand, respondents from MU were “not sure” about most of the statements, showing that they neither agreed nor disagreed with the statements.



	MU	ITU	IYTE	METU	AU	IUE
1	0	1	0	0	0	0
2	2	6	0	3	0	2
3	18	10	3	5	0	5
4	16	17	9	23	8	15
5	0	26	0	4	4	2

Figure 3.22. The evaluation of the answers in Part III according to the universities.

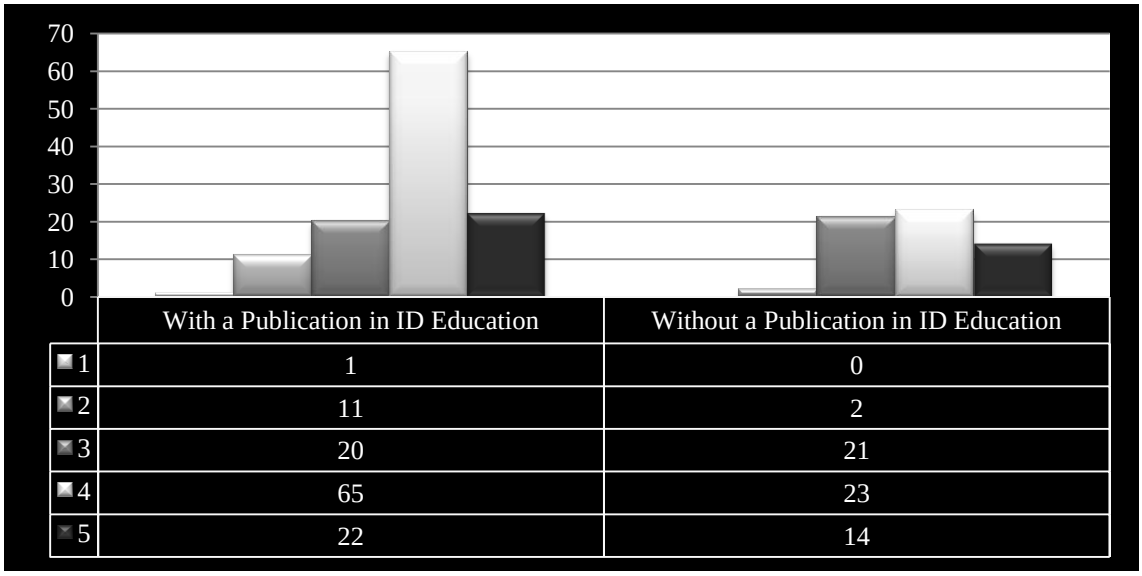
In addition, as it was the case in the other sections, assistant professors had the highest level of agreement in this section. Instructors, associate professors, and professors respectively followed them.



	Inst.	Assist. Prof.	Assoc. Prof.	Prof.
1	0	0	1	0
2	1	2	4	6
3	3	19	7	12
4	18	47	13	10
5	1	16	11	8

Figure 3.23. The evaluation of the answers in Part III according to respondents’ academic titles.

When the answers given by the respondents to the questions in section three are analyzed in terms of the publications, the high level of agreement among academics with a publication could be regarded as strength of this department.



	With a Publication in ID Education	Without a Publication in ID Education
1	1	0
2	11	2
3	20	21
4	65	23
5	22	14

Figure 3.24. The evaluation of the answers in Part III concerning their specialization in ID education.

After a general assessment of the third section was made, the statistical assessment that was carried out in order to figure out which statements indicated unanimity and which ones indicated opposing views is given in Table 3.12 and 3.13.

Table 3.12. Distribution of respondents' answers to Part III.

PART III STATEMENTS	(5) Absolutely Agree		(4) Agree		(3) Not sure		(2) Disagree		(1) Absolutely Disagree		Total Respondents
	%	Respondents	%	Respondents	%	Respondents	%	Respondents	%	Respondents	
Item 1	13	2	53	8	20	3	13	2	0	0	15
Item 2	33	5	60	9	7	1	0	0	0	0	15
Item 3	7	1	80	12	13	2	0	0	0	0	15
Item 4	33	5	53	8	13	2	0	0	0	0	15
Item 5	33	5	60	9	7	1	0	0	0	0	15
Item 6	7	1	40	6	40	6	13	2	0	0	15
Item 7	7	1	27	4	47	7	20	3	0	0	15
Item 8	7	1	36	5	43	6	14	2	0	0	14
Item 9	33	5	53	8	13	2	0	0	0	0	15
Item 10	40	6	47	7	13	2	0	0	0	0	15
Item 11	20	3	40	6	20	3	20	3	0	0	15
Item 12	7	1	40	6	40	6	7	1	7	1	15

In Part III entitled "The Strengths of Master's Degree Programs in Industrial Design in Turkey," when the mean values and the standard deviation values are analyzed, items 1, 4, 5, 9, 10, 11 (with the mean values of 4.27, 4.20, 4.27, 4.20, and 4.27 respectively, and the standard deviation value that is below 1) come out as the statements revealing unanimity among respondents. In addition, item 3, which 80% of the respondents agreed with, is also one of the statements indicating unanimity.

Table 3.13. The statistical calculations of the answers of Part III.

PART III STATEMENTS	MEAN	STANDARD DEVIATION	MEDIAN	MODE
Item 1	3,67	0,90	4	4
Item 2	4,27	0,59	4	4
Item 3	3,93	0,46	4	4
Item 4	4,20	0,68	4	4
Item 5	4,27	0,59	4	4
Item 6	3,40	0,83	3	3
Item 7	3,20	0,86	3	3
Item 8	3,36	0,84	3	3
Item 9	4,20	0,68	4	4
Item 10	4,27	0,70	4	4
Item 11	3,60	1,06	4	4
Item 12	3,33	0,98	3	4

On the other hand, 40 % of the respondents were ‘not sure’ about items 6, 7, 8 and 12. Item 11, with the standard deviation value of 1.06, indicated the least unanimity.

In conclusion, with regard to the strengths of the master’s degree program, the respondents seemed to agree with the following points: the fact that the number of publications in the field has increased, university libraries have become more extensive and that access to academic sources has become easier. In addition, an interdisciplinary educational policy has been embraced so that academics from other disciplines can now teach in the program, and exchange programs have become available so that students can gain international experience. Besides, more eager and motivated students coming to the discipline have increased the quality and students from diverse disciplines have improved the student profile.

3.4. Future Predictions and Recommendations

The topic of this section is ‘suggestions and predictions concerning the future of the master’s degree programs in ID’ and the respondents were asked to discuss it both in the first and second survey studies.

***First Survey Study*:** Concerning the departments and academic staff, most of the respondents argued that current master’s degree programs are more research focused. Six respondents emphasized this situation. One of them claimed that this kind of education is required on account of the current regulations and personnel appointment requirements. On the other hand, the remaining five agreed that this kind of necessity is okay for raising academics, but added that practice-oriented education should be offered alternatively.

With respect to that, while two of these five respondents argued that the master’s education should differentiate between theory and practice and thesis and without thesis, the remaining three respondents claimed that it is not enough and there should be different topics of specialization according to student needs and demands. One of these three respondents gave examples of the fields of furniture design, package design, interaction design, while another indicated that, in Turkey, a master’s degree in ID is only given by the faculties of natural and applied sciences, but in other countries, master’s degree in ID is also given by the faculties of social sciences or fine arts.

According to the information given by that respondent, there are universities that only focus on graduate education in other countries.

In this section, another topic pointed out by the respondents is the quality of the academic personnel. Six respondents argued that the academic personnel should be improved. These respondents suggested an increase in the number of foreign academics with PhD, informing the current academic personnel about the developments in the world, the government giving universities more quotas for the academic personnel, professors from other universities and professional designers giving lectures and improving the life conditions of the current personnel.

In this regard, the current personnel are having problems because of promotion problems. One respondent that pointed to the situation claimed that the main reasons for such problems are the insufficient quota for academic personnel and the inappropriate appointment and promotion criteria of the Council of Higher Education (YOK). The respondent explained the situation as:

> In ID area, there are very few academic journals. The only ones available are: one A-type journal on design in general, one A-type journal on education in design and arts, one B-type journal on design in general and one journal on design management. Therefore, this situation makes it harder to achieve the publication criteria of YOK.

In the same section, another comment of the respondents is about making a difference. Two respondents made their comments on this topic and stated their opinions by saying that master's education in ID should not be the following stage of the undergraduate education and every department should form a unique philosophy by interpreting the developments and changes in the world.

One respondent pointed to a different topic from the ones above, and indicated that it is a good thing to accept students from other disciplines but also reminded that these students could be out of scope due to the Bologna Project. The reason for that is the fact that most of the ID departments are within the body of the faculty of architecture and with the project, it will be possible that undergraduate and master's degree programs will be bound to each other.

Concerning the curricula, six respondents claimed that a revision of the current curricula of the master's program is required and course contents should be more diverse. Four of these six respondents indicated that new courses should be added and academic personnel will be required for these areas. Two of these four respondents also gave examples of such courses as ergonomics, anthropology, robotics, and

nanotechnology. The 5th respondent that advocated course diversity claimed that courses should be classified as theory and practice, whereas the 6th respondent claimed that this classification should be program-based rather than course-based and came up with a view that "University A could provide lab-based education, university B could provide project-based education and university C could provide cultural-based education".

Another topic brought up by these three respondents is the flexibility of the course hours because of the students that work. One of the respondents suggested that short but comprehensive programs can be offered in summer and in this way people that work in the industry can benefit from these courses.

Also in this section, three respondents advocated international master's degree programs. While one of these respondents did not have any information about how these programs can be brought to life but indicated that thinking in an international context is required, and another respondent suggested that master's degree program students should spend one year of their education in the foreign universities that provide similar education. In this context, METU, among the respondents' universities, is known to be in contact with Delft University of Holland for collaboration.

Finally, while three respondents made points about the curricula, one respondent suggested that the demands of the industry should also be considered when updating the course contents and updates should be conducted frequently in this direction.

Concerning the student quantity and quality, nine respondents answered the question in this section and expressed different points of view. One of the respondents said that interest in the master's degree programs has increased and therefore quotas and academic personnel should increase too. Moreover, that respondent indicated that attendance to PhD programs is much more limited in the current system and PhD quotas are almost full with only current assistants.

Three of the respondents indicated that students' aims and consciousness are very important and extremely beneficial for the students that come for project-based education and are sent by the firms to work in the industry for a specific mission.

On the contrary, another respondent claimed that an employee can get the same practical knowledge through work experience and it is a waste of time for that person. Two respondents emphasized the student quality and indicated that it is improving. According to these respondents, improvement in students' creativity, weltanschauungs, and art perceptions are extremely necessary for the program.

Concerning the relations with the industry, respondents are in total agreement that relations with the industry should be improved. According to the respondents, university should use the industry and vice versa. In order to achieve that, industry should increase its demand, the government should generate design policies, conditions in the universities should be improved and concrete topics should be chosen especially for project-based theses and studies. One of the respondents gave the example of UIAH project in Helsinki.

Two of the respondents complained about the lack of demand of the private sector and indicated that it is not an issue in other countries. One of them also gave the example of Nokia and the universities in Finland, and indicated that there is no reason for our country to fail to achieve success in such studies.

The comparative evaluation of both survey study results and literature study results will be represented in the next chapter and recommendations of researcher for further studies will also take place.

Second Survey Study: Part IV, which is entitled "Suggestions concerning the future of the Master's Degree program in ID in Turkey," was formed with the help of the data gathered from the first survey study. The points raised in the section are as follows:

1. The program should be divided into two sections, namely theoretical-practical and with/without thesis
2. In accordance with the demands and needs of the Turkish industry, universities should provide education in different sub-fields such as furniture design, packaging design, interaction design and automotive design.
3. It would be beneficial if academic institutions focusing on Master's Degree study and specialization were established.
4. The quality of the academic staff should be improved, and academics should be encouraged to pursue doctoral studies abroad.
5. Academics should be encouraged to take part in academic events abroad.
6. The number of academic staff and academic facilities should increase.
7. The current academic staff should be satisfied financially and professionally.
8. Professional designers working in the industry should be allowed to teach in the departments.

9. As a suggestion concerning the Bologna Project, the departments of industrial design should break away from the faculties of architecture. Instead, they should join the faculties of design.
10. Master's degree programs in industrial design should break away from the institutes of science. Instead, they should join the institutes of design.
11. The criteria of YOK regarding appointment and promotion of academics should be determined in accordance with the special characteristics of the discipline of industrial design rather than the discipline of architecture.
12. Master's degree study in industrial design should not be a sequel to undergraduate study in the field. It should be improved so that it is much more specialized.
13. The schedule should be made flexible for working students. For instance, summer school, and evening classes could be integrated into the program.
14. Master's degree programs should be diversified and focus on some new, theory-based areas such as R&D, laboratorial work, and practices like ergonomics, culture design etc.
15. Universities should get into collaboration with universities abroad and devise mutual academic programs.
16. Master's degree programs should meet the needs of the industry as it is in need of qualified industrial designers. Student quotas should be determined accordingly.
17. Coordination and collaboration between the master's degree programs and the industry should be maximized.
18. New strategies should be devised in order to help the government come up with new design policies.
19. The number of practice-based theses should increase, and the topics of the theses should be sensitive to the needs of the environment, people, and the country.

Part IV, which is the most significant section of all since it contains views concerning the future of the program, is different from the other sections as respondents "agreed" or "absolutely agreed" with almost all the statements. 89 % of the respondents "agreed" with the statements in this section, where there are hardly any opposing views. This indicates a high level of unanimity among respondents.

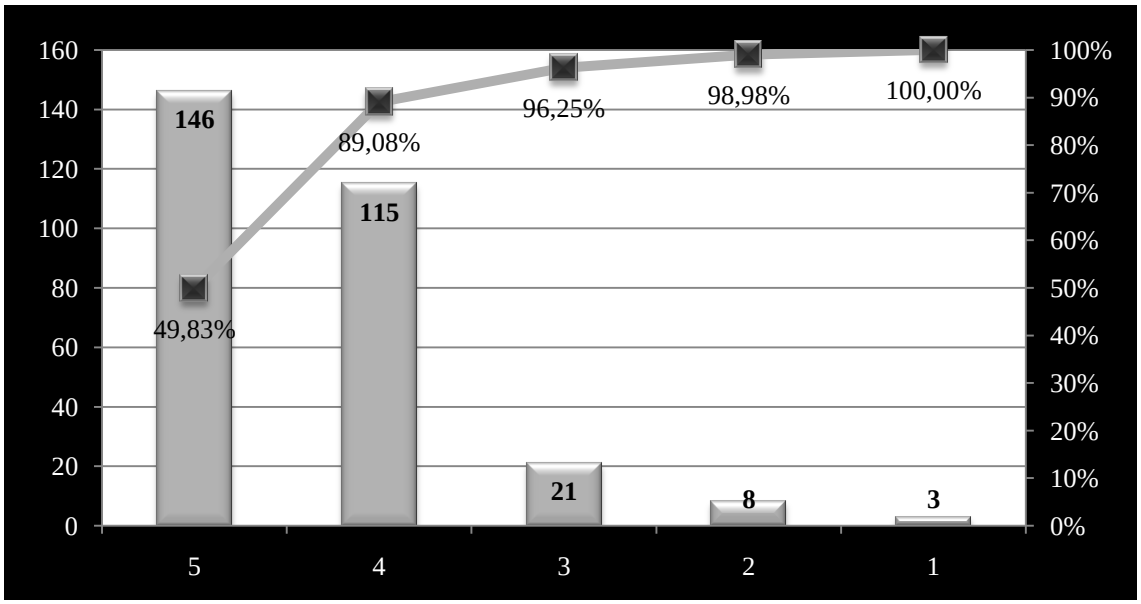
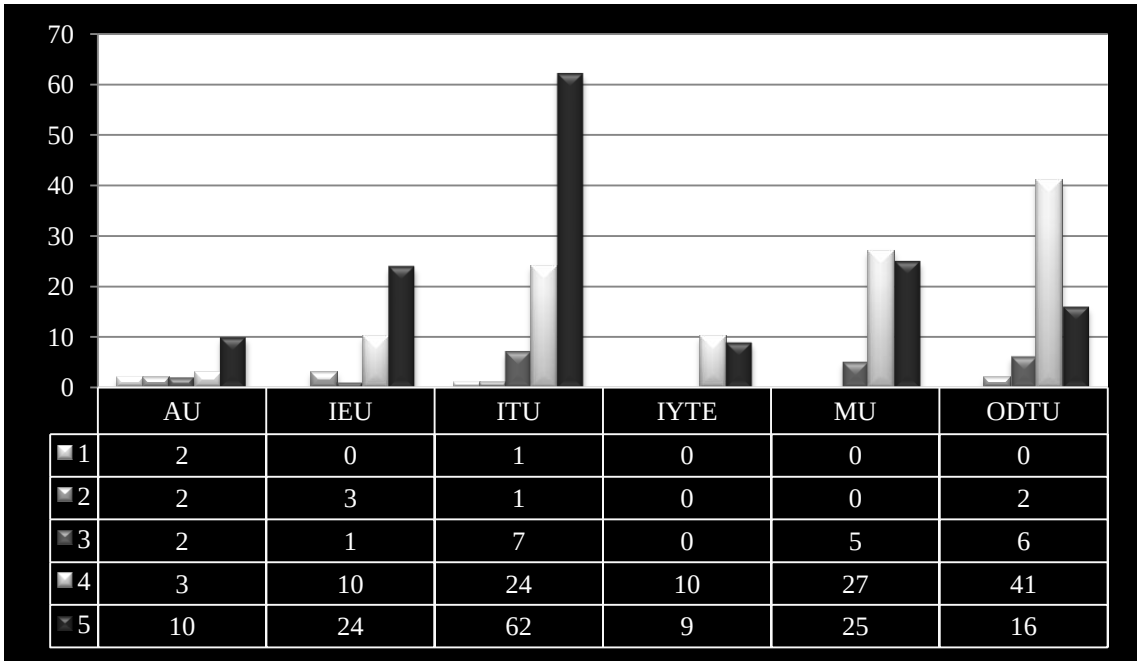


Figure 3.25. Cumulative-frequency histogram of Part IV.

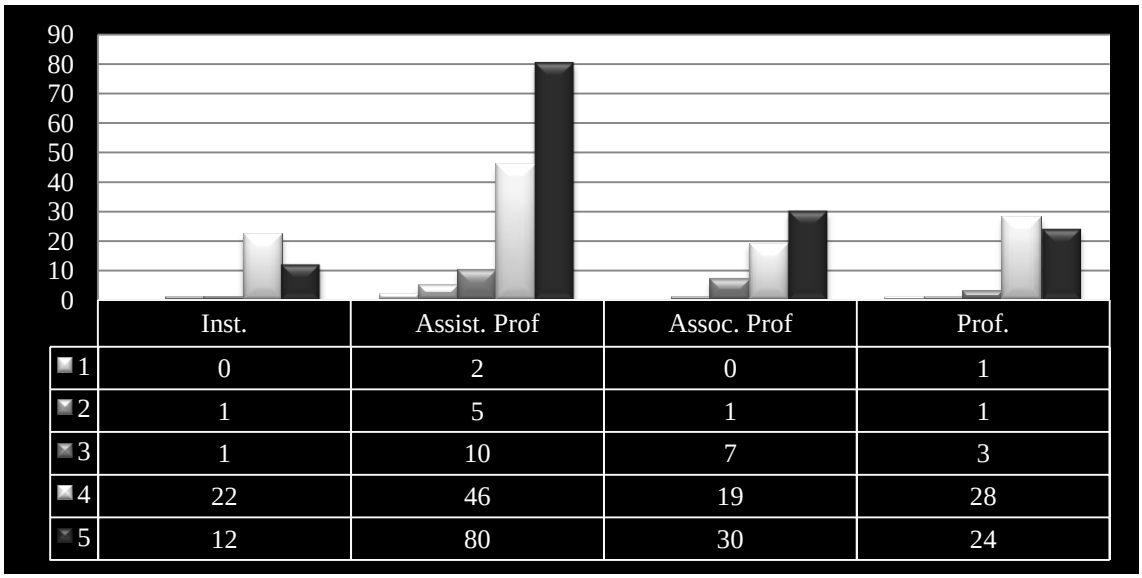
In addition, in this section, almost all the respondents from ITU rated as "agreed" or "absolutely agreed" with the statements. This high level of agreement can also be seen in the other universities in this section.



	AU	IEU	ITU	IYTE	MU	ODTU
1	2	0	1	0	0	0
2	2	3	1	0	0	2
3	2	1	7	0	5	6
4	3	10	24	10	27	41
5	10	24	62	9	25	16

Figure 3.26. The evaluation of the answers in Part IV according to the universities.

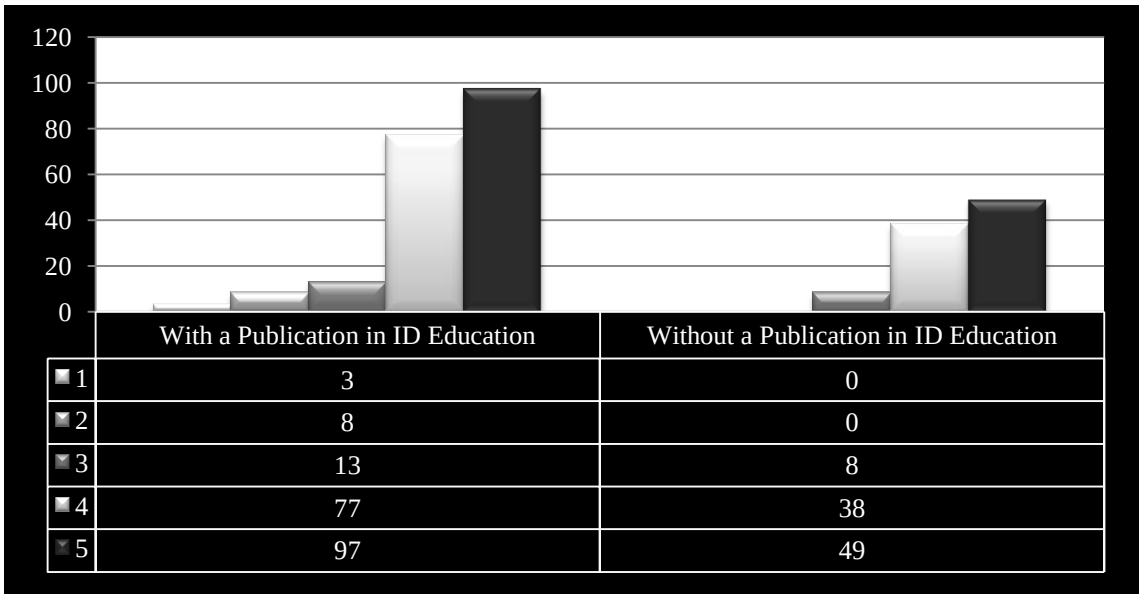
On the other hand, assistant professors have the highest level of agreement concerning the statements. Academics with other academic titles also "agreed" with most of the statements.



	Inst.	Assist. Prof	Assoc. Prof	Prof.
1	0	2	0	1
2	1	5	1	1
3	1	10	7	3
4	22	46	19	28
5	12	80	30	24

Figure 3.27. The evaluation of the answers in Part IV according to respondents' academic titles.

Likewise, respondents without a publication also "agreed" with almost all the statements in this section, which shows a high level of unanimity.



	With a Publication in ID Education	Without a Publication in ID Education
1	3	0
2	8	0
3	13	8
4	77	38
5	97	49

Figure 3.28. The evaluation of the answers in Part IV whether they specialized in ID education or not.

After a general assessment of the forth section was made, a statistical assessment, which was carried out in order to figure out which statements indicated unanimity and which ones indicated opposing views, is given in Table 3.14 and Table 3.15.

Table 3.14. Distribution of respondents' answers to Part IV.

PART IV STATEMENTS	(5) Absolutely Agree		(4) Agree		(3) Not sure		(2) Disagree		(1) Absolutely Disagree		Total Respondents
	%	Respondents	%	Respondents	%	Respondents	%	Respondents	%	Respondents	
Item 1	13	2	53	8	20	3	7	1	7	1	15
Item 2	27	4	53	8	7	1	13	2	0	0	15
Item 3	26	4	50	8	12	2	6	1	6	1	16
Item 4	60	9	33	5	0	0	7	1	0	0	15
Item 5	80	12	20	3	0	0	0	0	0	0	15
Item 6	87	14	13	2	0	0	0	0	0	0	16
Item 7	75	12	25	4	0	0	0	0	0	0	16
Item 8	36	5	57	8	7	1	0	0	0	0	14
Item 9	70	11	12	2	12	2	6	1	0	0	16
Item 10	57	9	31	5	12	2	0	0	0	0	16
Item 11	88	14	6	1	6	1	0	0	0	0	16
Item 12	64	9	29	4	7	1	0	0	0	0	14
Item 13	26	4	47	7	13	2	7	1	7	1	15
Item 14	19	3	81	13	0	0	0	0	0	0	16
Item 15	37	6	63	10	0	0	0	0	0	0	16
Item 16	32	5	56	9	6	1	6	1	0	0	16
Item 17	57	9	31	5	12	2	0	0	0	0	16
Item 18	60	9	40	6	0	0	0	0	0	0	15
Item 19	33	5	47	7	20	3	0	0	0	0	15

Part IV, which is entitled "Suggestions concerning the future of the Master's Degree program in industrial design in Turkey" is rated through the items 1 to 19. The items 11, 6, and 5 have been rated as 5 ("absolutely agree") by the majority of academics (88 %, 87 % and 80 %) and the mean values are 4.81, 4.88, and 4.80 respectively. These items fall into the first category as they indicate unanimity among respondents. The other statements that stand out according to mean, median and mode values are items 7, 18, 12, 4, 17, 9, and 10. These statements have the mode and median value of 5, and they fall into the second category as they reveal unanimity.

If the items are analyzed together, it can be said that respondents "absolutely agreed" or "agreed" with 14 of the 19 statements. This high degree of agreement can be regarded as a strong aspect, because the section entitled 'suggestions that concerning the future of the program' is significant as it enables the researcher to draw conclusions.

Table 3.15. The statistical calculations of the answers of Part IV.

PART IV STATEMENTS	MEAN	STANDARD DEVIATION	MEDIAN	MODE
Item 1	3,60	1,06	4	4
Item 2	3,93	0,96	4	4
Item 3	3,81	1,11	4	4
Item 4	4,47	0,83	5	5
Item 5	4,80	0,41	5	5
Item 6	4,88	0,34	5	5
Item 7	4,75	0,45	5	5
Item 8	4,29	0,61	4	4
Item 9	4,44	0,96	5	5
Item 10	4,44	0,73	5	5
Item 11	4,81	0,54	5	5
Item 12	4,57	0,65	5	5
Item 13	3,80	1,15	4	4
Item 14	4,19	0,40	4	4
Item 15	4,38	0,50	4	4
Item 16	4,13	0,81	4	4
Item 17	4,44	0,73	5	5
Item 18	4,60	0,51	5	5
Item 19	4,13	0,74	4	4

Another point that needs to be indicated is that the standard deviation value is above 1.00 in only the items 1, 3, 13, and that item 3 reveals opposing thoughts.

Consequently, what attracts attention in this part is that most of the suggestions made by the respondents are to do with the problems of the academic staff. That is to say, the criteria of YOK regarding appointment and promotion of academics should be determined in accordance with the special characteristics of the discipline and the number of academic staff. In addition, their facilities should increase and they should be encouraged to take part in academic events abroad.

In Chapter 4, all the findings of the comparative analysis and the surveys relating to the stated objectives will be evaluated and recommendations of the researcher for further studies will also take place.

CHAPTER 4

CONCLUSION

In this chapter, the results and implications obtained from the two applied surveys and situation analysis will be gathered, and a comparative evaluation for further studies will be conducted.

4.1. Comparative Results of the Thesis

The researcher conducted a situation analysis study in order to examine the master's degree education in industrial design in Turkey through a comparative analysis of the existing education systems.

The situational analysis concentrated on three main questions:

- What are the chronological circumstances acquired in industrial design education in Turkey?
- What are the institutional structure, missions, and visions of the universities offering a master's degree in the field of industrial design in Turkey?
- What are the educational curricula and course descriptions of these programs?
- What is the general situation of the teaching staff and students in these programs?

The answer of the first question was analyzed in detail at the beginning of Chapter 2. In addition, a chronological chart was prepared. Then the answers of the second, third and fourth questions were analyzed in detail in the sections 2.2.1-2.2.2, 2.2.3 and 2.3.4, respectively.

It was found out that the seven master's programs in ID do not display many differences. However, some points should be highlighted. In this regard, AU and IUE are different from each other in terms of educational structure. Since the program in AU is connected to the vocational school of industrial art, its educational philosophy as well as the academic staff have been influenced by the industry. The program also reveals the needs of the industry. On the other hand, the program in IUE is an interdisciplinary one, as it encompasses all the disciplines of design. This kind of educational structure

not only provides variety in academic personnel but it also enriches the program with interdisciplinary courses. The program in METU also differs from the others as it embodies a 'human factors usability lab' and the international 'Interaction Design' program.

The researcher carried out two applied surveys in order to investigate the perceptions and comments of the selected academic staff of the universities in Turkey offering a master's degree in industrial design.

In this regard, the selected academics who took part in the survey study answered six major research questions in the survey:

- What are the education backgrounds and workplaces of the respondents?
- What are their criteria for admitting students to the program and their thoughts about the evaluation of graduate students?
- What is the educational philosophy and specialty of their programs?
- What are their views about the benefits of having a master's degree in industrial design?
- What do they think about the weaknesses and strengths of the current education system?
- What are their future predictions and recommendations?

The replies of respondents to the first three questions took place in the beginning of Chapter 3 under the title, "Demographical Structure of Respondents and the Programs". In addition, the replies to fourth, fifth and sixth questions took place in the sections 3.2., 3.3., and 3.4., respectively.

The sections indicating the views of the respondent academics were underlined and analyzed in comparison with the main research questions.

What are their views regarding the benefits of having a master's degree in industrial design? From their point of view, master's degree programs have mostly been designed towards theory and research that equips students with academic skills. Besides, these programs embody a more "advanced" education than undergraduate ones, which enable graduates coming from different universities/disciplines to gain experience in working together in the industry.

What do they think about the weaknesses and strengths of the current education system? With regard to the weaknesses of the master's degree program, it could be said that 'problems concerning the academic staff' create unanimity among respondents. That is, excessive workload of the present academic staff is decreasing efficiency. Furthermore, they are insufficient in numbers, and the number of academics working in the field is even decreasing. However, not much is done to increase it. Another weak point is that "master's degree programs do not get enough financial support, and also the infrastructure is not very strong," which 74% of the respondents "absolutely agreed" with.

With regard to the strengths of the master's degree program, the respondents seem to agree with the following points: the increase in the number of publications, the fact that university libraries have become more extensive and that access to academic sources has become easier. In addition, an interdisciplinary educational policy has been embraced so that academics from other disciplines can now teach in the department. Exchange programs have also become available so that students can gain international experience. Besides, more eager and motivated students are enrolled in the program, which increases the quality and improves the student profile.

What are their future predictions and recommendations? What attracts attention is that most of the suggestions made by the respondents are to do with the problems of the academic staff. That is to say, the criteria of YOK regarding appointment and promotion of academics should be determined in accordance with the special characteristics of the discipline, the number of academic staff and their facilities should increase and they should be encouraged to take part in academic events abroad.

The statements that are agreed with the most out of 19 are listed as follows:

4th statement: The quality of the academic staff should be improved, and academics should be encouraged to pursue doctoral studies abroad.

5th statement: Academics should be encouraged to take part in academic events abroad.

6th statement: The number of academic staff and academic facilities should increase.

7th statement: The current academic staff should be satisfied financially and professionally.

9th statement: As a suggestion concerning the Bologna Project, the departments of industrial design should break away from the faculties of architecture. Instead, they should join the faculties of design.

10th statement: Master's degree programs in industrial design should break away from the institutes of science. Instead, they should join the institutes of design.

11th statement: The criteria of YOK regarding appointment and promotion of academics should be determined in accordance with the special characteristics of the discipline of industrial design rather than the discipline of architecture.

12th statement: Master's study in industrial design should not be a sequel to undergraduate study in the field. It should be improved so that it is much more specialized.

17th statement: Coordination and collaboration between the master's degree programs and the industry should be maximized.

18th statement: New strategies should be devised in order to help the government come up with new design policies.

Therefore, the master's study in industrial design needs restructuring in accordance with the requirements of the design profession. That is, both the government and YOK should come up with 'sound' policies and strategies in order to meet the needs of the academic personnel and create an institutional structure suitable for the profession. This study that aims shed light on the future of ID master's education focuses on the problems and the strong aspects of education by examining the current situation through the 'comparative method'. It is thought that the future suggestions would be the first step to form new strategies.

4.2. Further Studies

As the literature survey shows, the relevant literature is almost non-existent. Therefore, this thesis can be regarded as the only study in its own field, which comparatively analyses the current situations of master's degree education in ID. For this reason, it is necessary to conduct more studies on this field, and new resources should be formed, as the graduate programs in ID are capable of coming up with new developments.

This study centers on the master's degree programs in ID in Turkey. In the future studies, the scope can be widened by including the programs abroad in order to make a comparative analysis. In this way, the needs of the programs in Turkey could be determined.

Finally, one more recommendation for further studies about collecting qualitative data is that a survey in the form of 'Delphi Technique', which is based on a structured process for collecting and distilling knowledge from a group of experts, can be carried out in order to obtain common perceptions on master's study in the field of Industrial Design.

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APPENDIX A

ENGLISH VERSION OF THE FIRST SURVEY FORM

Dear Professor,

I am a graduate student at the department of Industrial Design at Izmir Institute of Technology. My thesis is entitled "Comparative Analysis of Master of Industrial Design Education in Turkey".

This study has been carried out for three main purposes: assess the past, present and future situation of the Master's degree program in Industrial Design, identify the deficiencies and the needs of the program, and suggest solutions to the problems of the program so as to improve the efficiency of the graduates who are going to be employed in the industry. The data gathered shall be used in the Master's thesis that is being carried out under the supervision of Associate Professor Önder Erkarslan, from the department of Industrial Design at Izmir Institute of Technology.

I am going to conduct the present study by carrying out face-to-face interviews with professors from universities offering a degree in industrial design, particularly from those offering a Master's degree in the field. The interview form consists of two sections.

The first section is comprised of questions that are addressed in order to obtain information about the university and the respondent. The second one, on the other hand, consists of questions raised so as to gather information about the respondents' opinions regarding the present and the future situation of the master's program in industrial design.

The results of the interviews will be e-mailed to the respondents upon their request.

Thank you very much indeed for your help and support,

Beril İMAMOĞULLARI
Graduate Student
Izmir Institute of Technology
Faculty of Architecture
Department of Industrial Design

SECTION 1

Name of your university:

Foundation date of your department:

How long has your department been providing undergraduate study?.....years

Title/Name-surname:

Do you have any administrative duties in the faculty/department? If yes, what are they?

What were your undergraduate, Master's and Ph.D. fields of study?

Do you have any publications in the field of industrial design education?

Are you in collaboration with the industry apart from being a faculty member?
(If yes, could you indicate which areas you have been working in?)

Approximately how many students per year:

- apply for a master's study in your department?
- are enrolled in the master's program?
- graduate from the program?

The theoretical and practical weight of the Master's degree program in your department:

☐ 30% theoretical - 70% practical
☐ 50% theoretical - 50% practical
☐ 70% theoretical – 30% practical
☐ Other (....%-....% practical)

Do you admit students from other disciplines to the master's program in your department? (If yes, please indicate the disciplines)

Could you indicate the professions chosen by your graduates in percentage terms?

....%Academic/ ....% actively working in the industry/ ....% other (please specify)

How often is your graduate syllabus updated in accordance with technological developments?

Briefly describe the educational philosophy of your department's master's program. In what fields do you offer specialization?

SECTION 2

> ➢ Please answer the questions in the survey below: give 2-5 answers for each sub-heading indicated

1. **What do you think are the advantages of master's study over undergraduate study in industrial design?**
   a) .....
   b) .....
   c) .....
   d) .....
   e) .....
2. **When you compare the past and present situation of the master's study in industrial design in Turkey, what kind of changes do you think have occurred?**
   - Concerning the academic staff and the department facilities:

   a) .....
   b) .....
   c) .....
   d) .....
   e) .....
   - Concerning the curriculum:

   a) .....
   b) .....
   c) .....
   d) .....
   e) .....
   - Concerning the quality and quantity of the students:

   a) .....
   b) .....
   c) .....
   d) .....
   e) .....
   - concerning industry-university collaboration

   a) .....
   b) .....
   c) .....
   d) .....
   e) .....

3. **Please indicate the strengths and weaknesses of the present master's programs in industrial design in Turkey.**

- Concerning the academic staff and the department facilities:

a) .....

b) .....

c) .....

d) .....

e) .....

- Concerning the curriculum:

a) .....

b) .....

c) .....

d) .....

e) .....

- Concerning the quality and quantity of the students:

a) .....

b) .....

c) .....

d) .....

e) .....

- concerning industry-university collaboration

a) .....

b) .....

c) .....

d) .....

e) .....

4. **What is your opinion of the future situation of the master's study in industrial design in Turkey? What are your suggestions? What should and should not be done?**

- Concerning the academic staff and the department facilities:

a) .....

b) .....

c) .....

d) .....

e) .....

- Concerning the curriculum:

a) .....

b) .....

c) .....

d) .....

e) .....

- Concerning the quality and quantity of the students:

a) .....

b) .....

c) .....

d) .....

e) .....

- concerning industry-university collaboration

a) .....

b) .....

c) .....

d) .....

e) .....

5. Further comments regarding master's study in industrial design in Turkey:

a) .....

b) .....

c) .....

d) .....

e) .....

APPENDIX B

TURKISH VERSION OF THE FIRST SURVEY FORM

Sayın Hocam,

Ben, İzmir Yüksek Teknoloji Enstitüsü Endüstri Ürünleri Tasarımı bölümü yüksek lisans öğrencisiyim. Tez konu başlığım, "Türkiye'de Endüstri Ürünleri Tasarımı Alanında Yüksek Lisans Eğitiminin Karşılaştırmalı Analizi"dir.

Bu çalışma; Türkiye'de Endüstri Ürünleri Tasarımı Yüksek Lisans eğitiminin dünü, bugünü ve geleceğinin değerlendirilmesi, eğitimin eksikliklerinin ve ihtiyaçlarının belirlenmesi ve endüstride istihdam edecek mezunların verimliliklerini arttırmak için eğitime getirilecek yeni çözüm önerilerini oluşturmak amaçları doğrultusunda yapılmaktadır. Elde edilen veriler İzmir Yüksek Teknoloji Enstitüsü Mimarlık Fakültesi Endüstri Ürünleri Tasarımı bölümü öğretim üyesi **Doç. Dr. Önder ERKARSLAN** danışmanlığında yürütülen yüksek lisans tez çalışması kapsamında kullanılacaktır.

Yapmakta olduğum çalışma, Türkiye'de endüstri ürünleri tasarımı bölümleri olan ve yüksek lisans eğitimi veren üniversitelerdeki öğretim üyeleri ile yüz yüze mülakat yapılarak gerçekleştirilecektir. Anket formu iki bölümden oluşmaktadır. Birinci bölüm, üniversite ve katılımcı ile ilgili bilgi edinmek amacıyla demografik sorulardan, ikinci bölüm ise endüstriyel tasarım yüksek lisans eğitimin mevcut durumu ve geleceğine yönelik katılımcıların görüşleri hakkında bilgi toplamak için hazırlanan sorulardan oluşmaktadır.

Yardımlarınız ve ilginiz için teşekkür ederim.

Beril İMAMOĞULLARI
İzmir Yüksek Teknoloji Enstitüsü
Mimarlık Fakültesi
Endüstri Ürünleri Tasarımı Bölümü
Yüksek Lisans Öğrencisi

1. BÖLÜM

Üniversitenizin Adı:

Bölümünüz Kuruluş Tarihi:

Bölümünüz yüksek lisans programı kaç yıldır eğitim vermektedir? ..... yıldır.

Ünvanınız/Adınız Soyadınız:

Fakülte/Bölümde idari göreviniz varmı? Varsa nedir?

Lisans, Yüksek Lisans ve Doktora eğitiminizi hangi alanlarda gerçekleştirdiniz?

Endüstri Ürünleri Tasarımı Eğitimi alanında Makale ve/veya Bildiri gibi yayınlarınız var mı?

Öğretim üyeliğinizin yanısıra endüstri ile de aktif olarak işbirliği yapıyor musunuz? (Evet, ise lütfen hangi alanlar için çalıştığınızı belirtiniz.)

Bölümünüz yüksek lisans programına yaklaşık olarak her yıl kaç kişi:

Başvuruyor? Yeni kayıt yaptırıyor? Mezun oluyor?

Bölümünüz yüksek lisans eğitiminin Teorik/Pratik ağırlığı:

☐ %30 Teorik - %70 Pratik
☐ %50 Teorik - %50 Pratik
☐ %70 Teorik - %30 Pratik
☐ Diğer (%.... Teorik - %.... Pratik)

Bölümünüz yüksek lisans programına farklı disiplinlerden öğrenci kabul ediyormusunuz? (Evet ise hangi disiplinlerden olduğunu belirtiniz)

Bölümünüz yüksek lisans programından mezun ettiğiniz öğrencilerin mezuniyet sonrası yöneldikleri alanları yüzdesel olarak değerlendiriniz.

%.....Akademisyen %.....Piyasa aktif olarak çalışan %.....Diğerleri(belirtiniz)

Bölümünüz yüksek lisans ders programı bilgi ve teknolojik gelişmeler doğrultusunda hangi sıklıkta güncelleniyor?

Bölümünüz yüksek lisans programı eğitim felsefenizi kısaca açıklayınız? Hangi alan/alanlarda uzmanlaşma sağlamaktasınız?

2.BÖLÜM

> ➢ Ankette yer alan sorulara; lütfen belirtilen her alt başlık için en az 2 en fazla 5 maddede kısaca cevaplandırınız.

1. **Türkiye'de endüstri ürünleri tasarımı alanında Lisans eğitimine göre Yüksek Lisans eğitiminin getirdiği farklılık ve avantajlar sizce nelerdir?**

a) .....
b) .....
c) .....
d) .....
e) .....

2. **Türkiye'de endüstriyel tasarım yüksek lisans eğitiminin dünü ve bugününü karşılaştırdığınızda ne gibi değişikliklerin meydana geldiğini düşünüyorsunuz?**

- Bölüm ve Akademik Kadro Açısından:

a) .....
b) .....
c) .....
d) .....
e) .....

- Ders Programı Açısından:

a) .....
b) .....
c) .....
d) .....
e) .....

- Öğrencilerin Nitelik ve Niceliği Açısından:

a) .....
b) .....
c) .....
d) .....
e) .....

- Endüstri-Üniversite İşbirliği açısından:

a) .....
b) .....
c) .....
d) .....
e) .....

3. **Türkiye'de bugünkü endüstri ürünleri tasarımı yüksek lisans eğitimini değerlendirdiğinizde, sizce zayıf-olumsuz ve güçlü-olumlu yönleri nelerdir belirtiniz?**

- Bölüm ve Akademik Kadro Açısından:

a) .....
b) .....
c) .....
d) .....
e) .....

- Ders Programı Açısından:

a) .....
b) .....
c) .....
d) .....
e) .....

- Öğrencilerin Nitelik ve Niceliği Açısından:

a) .....
b) .....
c) .....
d) .....
e) .....

- Endüstri-Üniversite İşbirliği açısından:

a) .....
b) .....
c) .....
d) .....
e) .....

4. **Türkiye'de endüstriyel tasarım yüksek lisans eğitimininin geleceğine yönelik düşünce ve önerileriniz nelerdir? Neler yapılmalıdır/olmalıdır, neler yapılmamalıdır/olmamalıdır?**

- Bölüm ve Akademik Kadro Açısından:

a) .....
b) .....
c) .....
d) .....
e) .....

- Ders Programı Açısından:

a) .....
b) .....
c) .....
d) .....
e) .....

- Öğrencilerin Nitelik ve Niceliği Açısından:

a) .....
b) .....
c) .....
d) .....
e) .....

- Endüstri-Üniversite İşbirliği açısından:

a) .....
b) .....
c) .....
d) .....
e) .....

5. **Burada bulunmayan ancak endüstri ürünleri yüksek lisans eğitimi açısından belirtilmesinde yarar gördüğünüz hususları kısa maddeler halinde açıklayınız.**

a) .....
b) .....
c) .....
d) .....
e) .....

APPENDIX C

ENGLISH VERSION OF THE SECOND SURVEY FORM

Dear Professor,

I am a graduate student at the department of Industrial Design at Izmir Institute of Technology. My thesis is entitled “Comparative Analysis of Master of Industrial Design Education in Turkey”.

The ideas I would like you to assess in the second survey (attached) as a part of my thesis are taken from the first survey I carried out with academics working in the field of industrial design. I would be glad if you indicated whether you agree with these statements or not. The aim is to determine the common views of the respondents with the help of the statistical data obtained in accordance with the results of the survey.

The answers you are going to give to the questions of the survey are highly valued and appreciated since there are not many studies carried out on graduate programs in industrial design in Turkey.

Since I have to submit my thesis within an extremely short time, could I ask you to e-mail me the survey I sent you as soon as possible?

I thank you for much in advance for your attention. I am looking forward to your reply.

Beril İMAMOĞULLARI
Graduate Student
Izmir Institute of Technology
Department of Industrial Design

ASSESSMENT OF MASTER'S DEGREE PROGRAMS IN INDUSTRIAL DESIGN IN TURKEY

1. The name of the university you work in:

AU	IUE	ITU	IYTE	MU	MSFAU	METU

2. Title/Name-surname:

3. Do you have any administrative duties in the faculty/department? ☐ Yes ☐ No

4. Your major:	Industrial design	Interior Design	Architecture	Other
Undergraduate:				
Master's Degree:				
Ph.D. (Proficiency in arts):				

5. Do you hold a Master's or doctoral degree that you received from abroad? ☐ Master's ☐ Doctoral

6. Do you have any publications in the field of industrial design education? ☐ Yes ☐ No

7. Do you work in the design industry apart from being a faculty member? If yes, what kind of jobs are you engaged in?

☐	I work for firms/individuals as a designer
☐	I work for firms as a design counselor
☐	Other ...

8. How many people have applied for the Master's Degree program in your department during the last five years?

5–15	15–30	30–50	Other
...	...	...	...

9. Please indicate the distribution of the course credits required for graduation from the Master's Degree program.

(Please do not write about ETSC credits)

Theoretical	Practical	Total
...	...	...

10. Concerning professions chosen by your graduates:

a. Do you keep statistics? ☐ Yes ☐ No

b. If you do not have statistical information concerning the issue, could you state your prediction in percentage terms?

Academic	Designer/researcher in the industry	Other
...	...	...

11. What definition below corresponds to the mission regarding the Master's Degree program in your department?

	It is a research-based program designed to raise academics
	It is a research and practice based program
	It is a practice-based program oriented towards university-industry collaboration.
	Other, ...

PLEASE TICK THE STATEMENT WHICH YOU AGREE WITH MOST

The statements below are taken from the first interview carried out with academics working in the field of industrial design

I. The Advantages of Master's Degree Study over Undergraduate Study in Industrial Design:

(5) Absolutely Agree	(4) Agree	(3) Not Sure	(2) Disagree	(1) Absolutely Disagree

STATEMENTS	5	4	3	2	1
1. Master's degree programs have mostly been designed towards theory and research.					
2. Master's degree programs aim to raise graduates wanting to pursue an academic career.					
3. Master's degree study provides students with specialization and extensive knowledge in the field of industrial design.					
4. Master's degree study helps students to fully understand the process of analysis-synthesis, equips them with the ability to make a decision based on reliable data and compile the results					
5. Master's degree study is more effective than undergraduate study as it equips students with such skills as systematic, critical, and analytical thinking, planning, and writing, which would enable them to produce academic publications.					
6. Master's degree programs serve as a sequel to undergraduate programs of the same university.					
7. For graduates wanting to work in the industry, a Master's degree is a plus since they have a greater chance of getting a job.					
8. Master's degree programs enable graduates coming from different universities/disciplines to gain experience in working together in the industry.					
9. Master's degree programs provide a more "advanced" education than graduate programs.					
10. The maximum number of students admitted to the Master's degree programs is 10, which improves the quality of Master's education.					

II. The Weaknesses of Master's Degree Programs in Industrial Design in Turkey

(5) Absolutely Agree	(4) Agree	(3) Not Sure	(2) Disagree	(1) Absolutely Disagree

STATEMENTS	5	4	3	2	1
1. Excessive workload of the present academic staff is decreasing efficiency.					
2. The academic staff is insufficient in numbers, and the number of academics in the field is even decreasing. However, not much is done to increase the number.					
3. Since departmental courses are determined in accordance with the majors of the present academics, they are temporary. For this reason, some courses are never available, and some of them are left out of the curriculum.					
4. Since only academics with a doctoral degree can teach in the master's degree program, students are deprived of the practical support of designers actively working in the industry.					
5. The present master's degree programs have not differed from one another since they cannot choose between practice and research based education.					
6. There are not enough practice-based theses completed in the field since the majority of them are theory-based.					
7. Since master's degree programs do not get enough financial support, the infrastructure is not very strong.					
8. The master's degree courses fail to meet the needs of the national industry and design culture, and the curriculums are not updated.					
9. The programs lack quality accreditation.					
10. The weaknesses of the students enrolled in the program are due to the ills of the current educational system. Since students are accustomed to taking multiple-choice tests, they have trouble expressing themselves orally and in writing.					
11. The profile of the students admitted to the master's degree program needs diversifying. That is, students coming from diverse disciplines should be admitted to the program.					
12. Not all students enroll in the program for their enthusiasm about the field. For instance, some students get into the program for such reasons as postponing the military service or being afraid of working in the industry straight after graduation.					

13. Some students who are enrolled in the program are also working, and they have difficulty finding time for their studies. This decreases the quality of education in the program.					
14. Since firms underestimate collaboration between disciplines, university-industry collaboration is less effective in master's degree programs than undergraduate ones.					
15. Due to the lack of advanced laboratories, university-industry collaboration is less effective in master's degree programs than undergraduate ones.					

III. The Strengths of Master's Degree Programs in Industrial Design in Turkey

(5) Absolutely Agree	(4) Agree	(3) Not Sure	(2) Disagree	(1) Absolutely Disagree

STATEMENTS	**5**	**4**	**3**	**2**	**1**
1. The profile of the academic staff is improving as the number of internationally-renowned academics who come back to universities in Turkey upon completing their studies abroad is increasing.					
2. There is a considerable increase in the number of national and international publications in this discipline.					
3. An interdisciplinary educational policy has been embraced. Academics from other disciplines can now teach in the department.					
4. Access to International publications has become easier since university libraries have become more extensive and diverse in terms of the number of publications and databases.					
5. Departments now have connections with those abroad, and exchange programs have become available, which enable students as well as faculty members to experience different countries and cultures.					
6. Technical facilities such as new workshops and laboratories have been launched.					
7. The areas of specialization have improved and usability, interaction design, and automotive design have become more important.					
8. Interdisciplinary programs have brought a more flexible educational scheme.					
9. Now that the program of industrial design is recognized, students coming to the departments are more eager and motivated. This increases quality.					

10. Increase in the number of students coming from diverse disciplines has improved the student profile.					
11. A graduate degree in industrial design has gained importance in job applications, and students have begun to see this program as a career path.					
12. Since competition in the industry has become more intense, firms have become more conscious and begun acting as sponsors in educational projects.					

IV. Suggestions concerning the future of the Master's Degree program in industrial design in Turkey

(5) Absolutely Agree	(4) Agree	(3) Not Sure	(2) Disagree	(1) Absolutely Disagree

STATEMENTS	**5**	**4**	**3**	**2**	**1**
1. The program should be divided into two sections, namely, theoretical-practical and with/without thesis.					
2. In accordance with the demands and needs of the Turkish industry, universities should provide education in different sub-fields such as furniture design, packaging design, interaction design and automotive design.					
3. It would be beneficial if academic institutions focusing on Master's Degree study and specialization were established.					
4. The quality of the academic staff should be improved, and academics should be encouraged to pursue doctoral studies abroad.					
5. Academics should be encouraged to take part in academic events abroad.					
6. The number of academic staff and academic facilities should increase.					
7. The current academic staff should be satisfied financially and professionally.					
8. Professional designers working in the industry should be allowed to teach in the departments.					
9. As a suggestion concerning the Bologna Project, the departments of industrial design should break away from the faculties of architecture. Instead, they should join the faculties of design.					
10. Master's degree programs in industrial design should break away from the institutes of science. Instead, they should join the institutes of design.					

11. The criteria of YOK regarding appointment and promotion of academics should be determined in accordance with the special characteristics of the discipline of industrial design rather than the discipline of architecture.					
12. Master's degree study in industrial design should not be a sequel to undergraduate study in the field. It should be improved so that it is much more specialized.					
13. The schedule should be made flexible for working students. For instance, summer school, and evening classes could be integrated into the program.					
14. Master's degree programs should be diversified and focus on some new, theory-based areas such as R&D, laboratorial work, and practices like ergonomics, culture design etc.					
15. Universities should get into collaboration with universities abroad and devise mutual academic programs.					
16. Master's degree programs should meet the needs of the industry as it is in need of qualified industrial designers. Student quotas should be determined accordingly.					
17. Coordination and collaboration between the master's degree programs and the industry should be maximized.					
18. New strategies should be devised in order to help the government come up with new design policies.					
19. The number of practice-based theses should increase, and the topics of the theses should be sensitive to the needs of the environment, people, and the country.					

Additional comments/suggestions:

20. …

21. ...

22. ...

Thanks for sharing your time.

APPENDIX D

TURKISH VERSION OF THE SECOND SURVEY FORM

Sayın hocam,

Ben, İzmir Yüksek Teknoloji Enstitüsü Endüstri Ürünleri Tasarımı bölümü yüksek lisans öğrencisiyim. Tez konu başlığım, "Türkiye'de Endüstri Ürünleri Tasarımı Alanında Yüksek Lisans Eğitiminin Karşılaştırmalı Analizi"dir.

Tez çalışmam kapsamında hazırlanan ikinci anket çalışmasında (ekte); değerlendirmenizi rica ettiğim görüşler, Endüstriyel Tasarım Yüksek Lisans Eğitimi alanında çalışan akademisyenlerle yapılan birinci anket çalışmasından elde edilmiştir ve sizden de bu görüşlere katılıp katılmadığınızı belirtmeniz istenmektedir. Anket yanıtları sonucunda elde edilecek istatistikî verilerle ise katılımcı akademisyenler arasında ortak görüşlerin belirlenmesi amaçlanmaktadır.

Türkiye de endüstri ürünleri tasarımı yüksek lisans eğitimi üzerine yapılan çalışmaların eksik olması nedeni ile vereceğiniz yanıtlar çok değerli ve önemlidir.

Ayrıca, tezimi tamamlamam için verilen ek süre çok kısıtlı olduğu ve az sürem kaldığı için size daha önce e-mail yolu ile de yolladığım anketleri faks veya tekrar e-mail yoluyla acil olarak geri göndermenizi rica ediyorum. Göstereceğinizi umduğum ilgi ve acil cevabınız için şimdiden teşekkür ederim.

Beril İMAMOĞULLARI
Izmir Yüksek Teknoloji Enstitüsü
Endüstri Ürünleri Tasarımı Bölümü
Yüksek Lisans Öğrencisi

TÜRKİYE'DE ENDÜSTRİ ÜRÜNLERİ TASARIMI YÜKSEK LİSANS PROGRAMLARININ DEĞERLENDİRİLMESİ

1. Çalıştığınız üniversitenin Adı:

AÜ	İEÜ	İTÜ	İYTE	MÜ	MSGSÜ	ODTÜ

2. Unvanınız /Adınız Soyadınız:

3. Fakülte/Bölümde idari göreviniz var mı? ☐ Evet ☐ Hayır

4. Eğitiminiz:	Endüstriyel Tasarım	İç Mimarlık	Mimarlık	Diğer
Lisans:				
Yüksek Lisans:				
Doktora (Sanatta Yeterlilik):				

5. Yurtdışında tamamladığınız bir dereceniz var mı? ☐ Yüksek Lisans ☐ Doktora

6. Endüstri Ürünleri Tasarımı Eğitimi alanında yayınınız var mı? ☐ Evet ☐ Hayır

7. Öğretim üyeliğinizin yanı sıra piyasada da tasarım ve uygulama alanında aktif olarak çalışıyor musunuz? Cevabınız Evet ise ne tür çalışmalar yapmaktasınız?

☐	Firmalara/Kullanıcıya özel tasarım hizmeti vermekteyim.
☐	Firmalara tasarım danışmanlığı hizmeti vermekteyim.
☐	Diğer...

8. Bölümünüz Yüksek Lisans programına, son 5 yılda ortalama kaç kişi başvurdu?

5–15 kişi	15–30 kişi	30–50 kişi	Diğer
...	...	...	...

9. Bölümünüz Yüksek Lisans programından bir öğrencinin mezun olabilmesi için tamamlaması zorunlu ders kredilerinin dağılımını Teorik, Uygulama ve Toplam olarak belirtiniz.

(Lütfen ETSC kredilerini yazmayınız.)

Teorik Ders Kredisi	Uygulamalı Ders Kredisi	Toplam Ders Kredisi
...	...	...

10. Bölümünüz Yüksek Lisans programından mezun ettiğiniz öğrencilerin mezuniyet sonrası yöneldikleri alanlar ile ilgili;

a. Herhangi bir istatistik tutuyor musunuz? ☐ Evet ☐ Hayır

b. Eğer istatistiksel bir bilgiye sahip değilseniz lütfen bu konudaki tahmininizi yüzdeli rakam ile belirtiniz.

Akademisyen	Piyasada Tasarımcı/Araştırmacı	Diğer (Çalışmıyor/Başka bir alanda çalışıyor)
...	...	...

11. Bölümünüz Yüksek Lisans programı eğitim hedefiniz hangi tanımlamaya uymaktadır?

	Akademisyen yetiştirmeye yönelik araştırma odaklı bir programdır.
	Araştırma ve uygulama odaklı bir programdır.
	Üniversite-Sanayi işbirliğine yönelik uygulama odaklı bir programdır.
	Diğer…

AŞAĞIDA YER ALAN GÖRÜŞLERDEN SİZİN DÜŞÜNCENİZE EN YAKIN OLANI "X" İŞARETİ İLE İŞARETLEYİNİZ.

Bu bölümde değerlendirecek olduğunuz aşağıdaki görüşler, End. Tas. Eğitimi alanında çalışan akademisyenlerle yapılan 1. anket çalışmasından elde edilmiştir.

I. Türkiye'de Endüstri Ürünleri Tasarımı Alanında Yüksek Lisans Programlarının Lisans Programlarına göre Fark ve Avantajları

(5) Kesinlikle Katılıyorum	(4) Katılıyorum	(3) Kararsızım	(2) Katılmıyorum	1 Kesinlikle Katılmıyorum

GÖRÜŞLER	5	4	3	2	1
1. Yüksek lisans (YL) programları yaygın biçimde teorik ve araştırmaya yönelik planlanmıştır.					
2. YL programları akademik kariyer yapmak isteyen mezunlara eğitim vermeyi hedefler.					
3. YL eğitimi kişilere endüstri ürünleri tasarımı alanında uzmanlaşma ve bilgi birikimi sağlar.					
4. YL eğitimi kişilere, Analiz - Sentez sürecini özümseme; yapılan araştırmalar sonucu elde edilen somut verilere dayanarak karar verme ve sonuçları derleme becerilerini kazandırır.					
5. YL eğitimi, lisans eğitimine göre kişilere daha sistematik, eleştirel, analitik düşünce şekli ile belli bir yayın oluşturabilecek biçimde raporlama ve yazma berecilerini kazandırır.					
6. Aynı üniversitedeki lisans ve yüksek lisans programları birbirinin devamı niteliği taşır.					
7. Piyasada çalışmak isteyen öğrenciler için yüksek lisans derecesi iş başvurularında diğerlerine göre avantaj sağlamaktadır.					
8. Ayrı üniversiteler/disiplinlerden gelen öğrenciler, YL programları sayesinde bir araya gelerek piyasada olduğu gibi birlikte çalışabilme deneyimi kazanırlar.					
9. YL eğitimi, lisans eğitimine göre daha ileri düzeyde gerçekleştirilir.					
10. YL programlarında, öğrenci sayısının en fazla 10 kişi ile sınırlandırılması eğitim kalitesinin artmasına katkı sağlar.					

II. Türkiye'de Endüstri Ürünleri Tasarımı Yüksek Lisans Programlarının <u>Zayıf Yönleri</u>

(5) Kesinlikle Katılıyorum	(4) Katılıyorum	(3) Kararsızım	(2) Katılmıyorum	1 Kesinlikle Katılmıyorum

GÖRÜŞLER	5	4	3	2	1
1. Mevcut akademik kadroların iş yükünün fazla olması çalışma verimliliğini düşürür.					
2. Akademik kadrolar sayısal olarak yetersiz ve azalma eğiliminde olup, arttırılmasına yönelik yeterli bir ortam sağlanmamaktadır.					
3. Dersler, mevcut akademisyenlerin uzmanlık alanlarına göre belirlenebildiğinden, sürekli değildir; bu nedenle gerekli bir takım dersler açılamadığı gibi mevcut dersler de kapanabilmektedir.					
4. YL eğitiminde, doktora derecesine sahip kişiler ders verebildiği için piyasada çalışan tasarımcılardan eğitimde uygulamaya yönelik destek alınamamaktadır.					
5. Mevcut YL programları, uygulama ve araştırma ağırlıklı eğitimler arasında belirgin bir seçim yapmamalarından ötürü birbirlerinden farklılaşamamıştır.					
6. Tamamlanan tezler çoğunlukla teorik ağırlıklı olup uygulamaya yönelik alanlarda yeterli değillerdir.					
7. YL programlarına yeterli bütçe ayrılamadığından altyapı donanımları eksiktir.					
8. YL dersleri, ulusal endüstri ve tasarım kültürünün ihtiyaçlarına yeteri kadar odaklanmamakta ve ders programları güncellenmemektedir.					
9. Programlarda kalite akreditasyonu eksikliği vardır.					
10. Test kültürü ve ezbere dayalı eğitim sisteminden gelen öğrencilerin sözlü ve yazılı ifade becerilerinin kısıtlı olmasından dolayı yüksek lisans programlarında sorun yaşarlar.					
11. Öğrenci başvuru profilinde disiplinler arası çeşitlenme yeterli değildir.					
12. Programa başvuran öğrenci profilinin amaç tanımlamasında bilinçsizlik mevcuttur; askerlik görevini erteleme istemi, hemen piyasaya atılmaktan korkma vb. gibi nedenlerden kaynaklanır.					
13. Çalışan öğrencilerin aynı zamanda YL programlarına kayıtlı olup, eğitime yeterli zaman ayıramamaları programın çıktı kalitesini düşürür.					

14. Firmaların disiplinler arası işbirliğinin önemini henüz benimsememiş olması nedeni ile YL programlarında Üniversite-Sanayi işbirliği çalışmaları lisans programlarına göre zayıftır.					
15. Üniversitelerde ileri düzeyde laboratuar gibi altyapı donanımlarının yaygın olarak kurulmaması nedeni ile YL programlarında Üniversite-Sanayi işbirliği çalışmaları lisans programlarına göre zayıftır.					

III. Türkiye'de Endüstri Ürünleri Tasarımı Yüksek Lisans Programlarının <u>Güçlü Yönleri</u>

(5) Kesinlikle Katılıyorum	(4) Katılıyorum	(3) Kararsızım	(2) Katılmıyorum	1 Kesinlikle Katılmıyorum

GÖRÜŞLER	**5**	**4**	**3**	**2**	**1**
1. Akademik kadro, yurtdışında lisansüstü eğitim alarak Türkiye'deki üniversitelere dönen, uluslararası rekabet düzeyine sahip akademisyenlerin sayısının artması ile gelişmektedir.					
2. Bu disiplinde ulusal ve uluslararası yayın sayısında artış vardır.					
3. Disiplinler arası eğitim anlayışı benimsenmiştir; tasarım bölümleri ile diğer disiplinlerden akademisyenlerin ders vermesi sağlanabilmektedir.					
4. Üniversite kütüphanelerinin gerek yayın gerekse daha kapsamlı veri tabanı üyelikleri ile zenginleşmesi sayesinde uluslararası yayınlara ulaşma olanakları artmıştır.					
5. Bölümlerin yurtdışı bağlantıları artmış ve değişim programlarıyla gerek öğrencilere, gerekse öğretim üyelerine yurtdışı deneyimleri sağlanabilir.					
6. Teknik donanımlar gelişmiş, atölye ve laboratuar olanakları artmıştır.					
7. Uzmanlık alanları olarak; mobilya tasarımı, etkileşim tasarımı, otomotiv tasarımı, kullanılabilirlik vb. konulara odaklanılmıştır.					
8. Disiplinler arası programlar, esnek bir eğitim biçimi sağlamıştır.					
9. Endüstri ürünleri tasarımı disiplininin tanınması ile öğrenciler YL programlarına daha bilinçli ve istekli gelmektedir, bu da öğrenci kalitesini arttırmıştır.					
10. Disiplinler arası öğrenci sayısının artması ile öğrenci profili zenginleşmiştir.					
11. İş başvurularında yüksek lisans diplomalarının önem kazanmasıyla kariyer yapma açısından bu programlar öğrenciler tarafından aranır olmuştur.					

12. Piyasadaki rekabetin artmasıyla, firmalar bilinçlenmiş ve eğitim projelerine bütçe ayırarak sponsor olmaya başlamışlardır.					

IV. Türkiye'de Endüstri Ürünleri Tasarımı Yüksek Lisans Eğitiminin Geleceğine Yönelik <u>Öneriler</u>

(5) Kesinlikle Katılıyorum	(4) Katılıyorum	(3) Kararsızım	(2) Katılmıyorum	1 Kesinlikle Katılmıyorum

GÖRÜŞLER	**5**	**4**	**3**	**2**	**1**
1. Eğitimin teorik-uygulama ve tezli-tezsiz olarak ayrılması gerekir.					
2. Ülke endüstrisinin istek ve gereksinimleri açısından mobilya tasarımı, ambalaj tasarımı, etkileşim tasarımı, otomotiv tasarımı vb. gibi farklı alt dallarda eğitim seçeneklerinin sunulması gerekir.					
3. Uzmanlıklara yönelik lisansüstü eğitime odaklanan yükseköğretim kurumlarının açılması yararlı olacaktır.					
4. Akademik personelin niteliği arttırılmalı, özellikle yurtdışında doktora eğitimi teşvik edilmelidir.					
5. Mevcut akademisyenlerin yurtdışında yapılan etkinliklere katılabilmesi için teşvik edici koşullar sağlanmalıdır.					
6. Üniversitelerde akademik kadro sayısı ve olanakları arttırılmalıdır.					
7. Mevcut kadroların maddi ve manevi kaynaklarının iyileştirilmesi gerekir.					
8. Piyasada çalışan nitelikli profesyonel tasarımcıların ders vermelerini sağlayacak olanaklar oluşturulmalıdır.					
9. Bolonya projesine bir çözüm önerisi olarak; End. Tas. Bölümlerinin Mimarlık Fakültesi çatısı altından çıkarılması ve Tasarım Fakülteleri altında kurulması gerekmektedir.					
10. End. Tas. YL programları Fen Bilimleri Enstitülerinden çıkarılıp, Tasarım Enstitüleri altında yürütülmesi gerekir.					
11. YÖK'ün atama ve yükseltme ölçütlerinin Mimarlık temel alanı altında değerlendirilmesi yerine End. Tas. Disiplinine özel koşullarda değerlendirilmesi gerekir.					
12. Yüksek lisans eğitimi lisans eğitiminin devamı olmaktan kurtulup, gelişmiş ve uzmanlaşmış bir eğitim olması gerekir.					
13. Çalışan öğrenciler için eğitim koşulları daha esnek hale getirilmelidir. Örnek olarak, yaz okulları, ikinci öğretim vb. gibi koşullar verilebilir.					

14. Üniversitelerdeki YL programları farklı uzmanlıklara odaklanan çeşitlilik sağlanmalıdır. Örnek olarak, AR-GE, laboratuar, uygulama, (ergonomi, kültür tasarımı vb. gibi) teorik temelli alanlar verilebilir.					
15. Yurtdışındaki üniversiteler ile işbirliği yapılarak ortak programların oluşturulması sağlanmalıdır.					
16. YL programları Türkiye'nin endüstri konularına ve endüstriyel tasarımcı ihtiyaçlarına açılmalı ve öğrenci kontenjanları belirlenmelidir.					
17. YL programları ile endüstri arasında eşgüdüm sağlanmalı ve işbirliği olanakları arttırılmalıdır.					
18. Devletin endüstriyel tasarım politikaları oluşturması için stratejiler geliştirilip sunulmalıdır.					
19. Uygulama temelli tez çalışmalarının sayısı arttırılmalı, konuları ise sorumluluk sahibi, çevre, insan ve ülke ihtiyaçlarına duyarlı olmalıdır.					

Bu görüşlerin dışında belirtmek istediğiniz gelecek önerilerinizi sizin için ayrılmış bu alana ekleyebilirsiniz.

20. …

21. ...

22. ...

Zaman ayırdığınız için teşekkür ederim.

APPENDIX E

LIST OF RESPONDENT ACADEMICS

Prof.Dr. H. Alpay ER

Prof.Dr. İsmail Süha ERDA

Prof.Dr. Nigan BAYAZIT

Prof. Şermin ALYANAK

Assist. Prof. Dr. Can ÖZCAN

Assist. Prof. Dr. Fatma KORKUT

Assist. Prof. Dr. Füsun CURAOĞLU

Assoc. Prof. Dr. Gülay HASDOĞAN

Assoc. Prof. Dr. Mehmet ASATEKİN

Assist. Prof. Dr. Mine OVACIK DÖRTBAŞ

Assist. Prof. Dr. Naz (EVYAPAN) BÖREKÇİ

Assoc. Prof. Dr. Özlem ER

Assist. Prof. Dr. Şebnem TİMUR ÖĞÜT

Assoc. Prof. Dr. Seçil ŞATIR

Assist. Prof. Hakan ERTEM

Assist. Prof. C.Arslan ÖZBİÇER

Assist. Prof. Ümit CELBİŞ

Inst. Dr. Canan E. ÜNLÜ

Inst. Yankı GÖKTEPE