JOURNAL OF EDUCATIONAL
AND INSTRUCTIONAL STUDIES IN THE WORLD
May 2017, Volume: 7 Issue: 2 ISSN: 2146-7463

INVESTIGATION OF PREFERENCES FROM TECHNOLOGY FACULTY MECHATRONICS ENGINEERING STUDENTS

Assist. Prof. Dr. İbrahim Aydın
Manisa Celal Bayar University
Manisa- Turkey
ibrahim.aydin@cbu.edu.tr

Lect. Üzeyir Kuzu
Manisa Celal Bayar University
Manisa- Turkey
uzeyir.kuzu@cbu.edu.tr

Lect. H. Zeki Diril
Manisa Celal Bayar University
Manisa- Turkey
hzekidiril@gmail.com

Lect. Can Gönenli
Manisa Celal Bayar University
Manisa- Turkey
can.gonenli@cbu.edu.tr

Abstract
With the rapid development of technology day by day, the need for qualified engineers is increasing. The main objective of the technology faculty is to train engineers with the knowledge, skills and practical ability required for this need.

This study was carried out with the aim of examining the factors affecting the preference order and preferences of the students of Manisa Celal Bayar University Department of Mechatronics Engineering of Hasan Ferdi Turgutlu Technology Faculty. The study was made with 43 students in the 3rd year of the 2016 -2017 academic year. Survey questions were formed from 10 questions developed by researchers. Survey Forms were coded on computer and analyzed in SPSS for Windows program. In the analysis of the figures, the number is used as percentage. The results of the study are evaluated and discussed.

Keywords: Mechatronics Engineering, Faculty of Technology, Industry.

INTRODUCTION

The concept of Industry 4.0, which often confronts us in our daily lives, has become meaningful to us now. Machine-human communication, machine-machine communication has become an indispensable element in every branch of the industry with the progress of technology and Industry 4.0. While this rapid development in technology reveals the need for qualified technical staff, the question of how to produce qualified technical staff is also important. In this sense, Technology Faculties, which have more application training than Engineering Faculties, are at the forefront.

Education and training are a continuous process starting from the birth of the individual and reflecting on his / her direct life in and around the family. No one has the chance to choose a family, but everyone has the right to choose a school for education. The desire of a child whose family has no regular income and who is in the future worries about it is a more dominant feeling and preference

(Sönmez, 2000). When the family status of the students in the Higher Education is investigated, it is seen that 73-83% of the students studying in the higher education institutions in Ankara are from the urban families, 11-13% from the villages, 6-12% from the villagers and the family income of the children who are generally studying in higher education institutions Turkey is above the average (Yörükoğlu,1997). When studies are conducted for students' gender status, the girl's presence at home is seen temporarily. The boy, on the other hand, is considered to be the base of the family. In the traditional society, the girl's preoccupation makes it unnecessary to cost her education (Tezcan, 1997). As a result of the reasons listed above, the economic conditions of the family, transportation and employment are the basic factors that the students will consider when choosing the school.

The success of an individual's school is determined by the individual's level of readiness and the level of expectation from the school because of the school's preference. As the individual identifies the area to be trained, he should ask himself how to get better education.

In this study, it was aimed to investigate the effect of effective factors on the school preferences of the students of the Faculty of Technology Mechatronics Engineering. The questions necessary to achieve this aim have been prepared and applied to the students.

METHOD

This study, which aims at examining the factors that influence students' school preferences, is a "Screening Model" research aimed at describing the existing situation. Besides, it has been tried to determine by the "Relational Scanning Model" how effective the students are in the school preference in terms of gender, expectations, interests and abilities, occupational choice, school types, school characteristics and some other factors. Relational search models are research models aimed at determining the presence and / or degree of exchange between two or more variables (Karasar, 2000).

Universe and Sampling

The universe of the research is Mania Celal Bayar University, which is located in the province of Turgutlu, Manisa province, Hasan Ferdi Turgutlu Technology Faculty Mechatronics Engineering 3rd grade students. In this phase, students were selected by sampling method and samples were created. Thus, 43 students were sampled.

Data Collection Tools

Survey form was used in the research. In the questionnaire, there are questions about determining reasons of school preference in order to gather information about independent variables. There are 10 questions that were determined in previous studies that were effective in school choice. While the questionnaires were prepared, the questionnaires of similar studies were examined and SPSS program was used to determine the content validity of the developed questionnaires.

Data analysis

The obtained data were analyzed by SPSS (Statistical Package for Social Science) package program. In the following, frequency values are given for each question and relations are tried to be established.

FINDINGS

When the results were evaluated, 43 students participated in the survey. The findings obtained from the questionnaire survey are given in Tables 1-10.

Table 1: The Question About Participants' Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
	Male	35	81,4	81,4	81,4
	Female	8	18,6	18,6	100,0
	Total	43	100,0	100,0	

As a response to the gender question, 35 participants were male and 8 were female.

Table 2: The Question About Participants' Graduation High Schools.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Vocational High Sch.	4	9,3	9,3	9,3
	High School	39	90,7	90,7	100,0
	Total	43	100,0	100,0	

As a response to the school type question, 39 students were graduated from high school and 4 students were graduated from vocational high school

Table 3: The Question About The Reasons For Choosing Mechatronics Engineering

		Frequency	Percent	Valid Percent	Cumulative Percent
	Inadequate score	17	39,5	39,5	39,5
	Close to home	7	16,3	16,3	55,8
	School recognition	19	44,2	44,2	100,0
	Total	43	100,0	100,0	

Mechatronics engineer's preference is that 17 students are inadequate score, 7 students are close to home, 19 students are school recognition.

Table 4: The Question About The Reasons For Choosing Engineering

		Frequency	Percent	Valid Percent	Cumulative Percent
	Own decision	29	67,4	67,4	67,4
	Friends	1	2,3	2,3	69,8
	Family	4	9,3	9,3	79,1
	Suggestions	9	20,9	20,9	100,0
	Total	43	100,0	100,0	

It is seen that 29 students choose their own decision, 1 student's friends, 4 family members, 9 students choose engineering because of the suggestions.

Table 5: The Question About Is There Anyone Who Has Influence On School Preference

		Frequency	Percent	Valid Percent	Cumulative Percent
	Yes	15	34,9	34,9	34,9
	No	28	65,1	65,1	100,0
	Total	43	100,0	100,0	

It has been seen that 15 students, yes; 28 students pointed to no option in response to the preference-oriented person inquiry question in the school.

Table 6: Inquiry Of Satisfaction From Department

	Frequency	Percent	Valid Percent	Cumulative Percent
Partially satisfied	11	25,6	25,6	25,6
Satisfied	29	67,4	67,4	93,0
Not glad	3	7,0	7,0	100,0
Total	43	100,0	100,0	

It was seen that 40 people were satisfied with the department.

Table 7: Student's School Proposition Status

	Frequency	Percent	Valid Percent	Cumulative Percent
Recommended	24	55,8	55,8	55,8
Not recommended	18	41,9	41,9	97,7
Not answered	1	2,3	2,3	100,0
Total	43	100,0	100,0	

It was observed that 24 students answered positively and 18 students answered negatively.

Table 8: The Question About Course Contents Information

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	38	88,4	88,4	88,4
No	5	11,6	11,6	100,0
Total	43	100,0	100,0	

38 students were positive and 5 students were negative for the course content information question.

Table 9: The Question About Job Opportunities Information

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	38	88,4	88,4	88,4
No	5	11,6	11,6	100,0
Total	43	100,0	100,0	

It has been seen that 38 students have information about course contents and 5 students not.

Table 10: The Question About Are The Department Lecturers Effective In Department Choice

	Frequency	Percent	Valid Percent	Cumulative Percent
Partially yes	4	9,3	9,3	9,3
Yes	4	9,3	9,3	18,6
No	35	81,4	81,4	100,0
Total	43	100,0	100,0	

It has been seen that 35 students said the lecturers were effective in their choice and 8 students not.

RESULTS

When the results of the survey are evaluated, it is seen that gender factor is effective in choosing mechatronics engineering and male students have 81.4%. It was observed that graduates of high schools graduated to mechatronic engineering more than vocational high school graduates by 90.7%. It has been understood that the students who have preferred the department have already researched the section and have preferred to do so.

WJEIS's Note: This article was presented at 8th International Conference on New Trends in Education - ICONTE, 18- 20 May, 2017, Antalya-Turkey and was selected for publication for Volume 7 Number 2 of WJEIS 2017 by ICONTE Scientific Committee.

REFERENCES

Karasar, N. (2000). *Bilimsel Araştırma Yöntemi*. Ankara: Nobel Yayın Dağıtım.

Sönmez, V. (2000). *Öğretmenlik Mesleğine Giriş*. Ankara: Pegem A Yayıncılık.

Tezcan, M. (1997). *Eğitim Sosyolojisi*. Ankara: Anı Yayınları.

Yörükoğlu, A. (1997). *Değişen Toplumda Aile ve Çocuk*. İstanbul: Özgür Yayınları.