

The Relationship between Individual Characteristics, Family Characteristics, and Previous Academic Performance and Chosen Major among High School Students in Tarom

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Abstract

This study aimed to determine the relationship between individual characteristics, family characteristics, and previous academic performance and chosen major among high school students in Tarom. This was applied descriptive-correlation study. The population consisted of all male and female high school students in Tarom in 2014-2015 (N=1526). Using Cochran formula and stratified random sampling method, 307 participants were selected as sample. A researcher-made questionnaire was used for collecting the data. The collected data were analyzed using SPSS Software. The validity of questionnaire was confirmed by supervisor professor, school counselors in city and province, and experts in counseling centers. Using Alpha Cronbach, the reliability of questionnaire was obtained to be 0.82. The findings showed that there was relationship between residence place, parents' education level, parents' occupation, and previous academic performance and chosen major of high school students; however, there was no relationship between gender and number of family members and chosen major of high school students in Tarom.

Keywords: Major Selection, Major Selection Factors, High School Students.

1. Introduction:

Often, people make choices in their life. Choosing is one of the most important human activities. The choices determine the course of human life. The (material, financial, human, and information) resources may be exploited appropriately and waste of resources may be avoided by making right choices. If choice is based on information and insight, it may help decision-maker to prevent loss of resources (Karimi, 2010). The choice of major is one of the most important choices.

The high school education mediates between general education course and higher education course. According to final report of UNESCO's Regional Summit, high school is a transition period from primary and non-specialized education to specialized education in higher education level. It is a transition period from childhood to adolescence. It is a middle period which gives special features to young teens due to its psychological pressures, physical pressures, and compatibility issues. In many developing countries, these teens are the main source of semi-skilled human resources (Safi, 2010). The various course curriculums in various study disciplines and fields provide opportunities to these teens to choose their major based on their interests, talents, base knowledge, and future needs. Due to the diversity of majors in high school, students aged 14 to 18 years old may select their study filed based on their interests and abilities.

The scientific and technological developments, complexity and constant changes in career world, and ever-increasing demands for some jobs and professions have made difficult the decision-making and choice of job. Also, the rapid growth of science and technology have led to creation of jobs which have different demands and conditions than the past. Undoubtedly, one goal of education is facilitation of professional growth and providing career guidance for people. A large part of this important and wide issue should be conducted by Training and Education System. Today, the Training and Education System is the most important institution in human society. It is responsible for socialization, training, and upbringing and development of people in society. However, its process is very complex process and consists of several components and factors. One of the factors which has great importance is educational and occupational guidance. Today, the choice of major is one of the most important issues in Education & Training, especially in high school. Several factors are involved in choosing major including talent, individual interests, interest of parents, recommendation of friends, relatives, and consultants, and etc. due to limited majors, the major choice was not difficult in the past. Considering the specialization and diversification of majors, today, the selection of appropriate major is one of the most important issues in education. In major selection phase, an important educational and occupational decision is made for young people (Fazelian, 2005). This impacts greatly on fate and identity of individuals' future and fate of

community. The desirable education direction leads to proper individual talents direction, improvement, satisfaction, and success, employment with enough knowledge and skills, continued success throughout the life, and numerous psychological, social, economic, and moral consequences.

Sachman (2005) stated that personal and environmental factors impact on demand of people to enter university. The personal factors include having mental and intellectual abilities, interest to study in university, average grade, and foresight. The environmental factors include education history of family, university admission process, employment status in society, and scientific and education quality and quantity in university. Frank (2003) stated that residence location and being native impacts on major selection. Studying factors affecting choice of college major, Daley (2003) realized that first the individual factors such as values, personal knowledge, and interest and then familial factors are most effective. In his study, Reid (2002) found that first year students reported personal characteristics and personal decisions as the most important major selection.

In a study entitled (Assessment of major choice and its impact on academic satisfaction of all undergraduate students in Isfahan University in 2008- 2009), Rabani and Raabii (2011) reported that personal interests, suggestion of friends and acquaintances, environmental factors, and advise of parents are the top factors influencing major choice, respectively. Jalali (1998), Rokhsat Talab (1996), and Afshar showed that parents do not influence students' field selection (Shabanlou, 2008).

However, this study aims to determine the relationship between individual characteristics (gender, residence location), family characteristics (parents' education, parental occupation, number of family members), and previous academic performance and chosen major among high school students in Tarom. Since such research has not been conducted in Tarom, it has high importance and necessity.

Methodology:

This was applied descriptive-correlation study. The population consisted of all male and female high school students in Tarom in 2014-2015 (N=1526). Using Cochran formula and stratified random sampling method, 307 participants were selected as sample. A researcher-made questionnaire was used for collecting the data. The collected data were analyzed using SPSS Software. The validity of questionnaire was confirmed by supervisor professor, school counselors in city and province, and experts in counseling centers. Using Alpha Cronbach, the reliability of questionnaire was obtained to be 0.82.

Findings:

First hypothesis test:

There is relationship between high school students' individual characteristics (gender, residence location) and their chosen field.

A) Gender:

The contingency table, Chi-Square Pearson coefficient, and V-Cramer and Phi tests were used to examine the relationship between predictor (independent) variable (Gender) and criterion (dependent) variable (major choice). According to findings, Pearson chi-square value was 4.245 and degree of freedom was 4; this was not significant below 0.05. Also according to Phi and V-Cramer tests, the relationship between these two variables was not significant. Therefore, it can be concluded that there is no relationship between high school students' gender and chosen major.

B) Residence location:

The contingency table, Chi-Square Pearson coefficient, and V-Cramer and Phi tests were used to examine the relationship between predictor (independent) variable (Residence location) and criterion (dependent) variable (major choice). According to findings, Pearson chi-square value was 28.218 and degree of freedom was 4; this was significant below 0.01. Also according to Phi and V-Cramer tests, the relationship between these two variables was significant below 0.01. Therefore, it can be concluded that there is relationship between high school students' residence location and chosen major with 99% confidence level.

Second hypothesis test:

There is relationship between high school students' family characteristics (Parent education level, parent occupation, number of family members) and their chosen field.

A) Parent education level:

Education level of father:

The contingency table, Chi-Square Pearson coefficient, and V-Cramer and Phi tests were used to examine the relationship between predictor (independent) variable (Education level of father) and criterion (dependent) variable (major choice). According to findings, Pearson chi-square value was 52.169 and degree of freedom was 20; this was significant below 0.01. Also according to Phi and V-Cramer tests, the relationship between these two variables was significant below 0.01. Therefore, it can be concluded that there is relationship between high school students' fathers' education level and chosen major with 99% confidence level.

Education level of mother:

The contingency table, Chi-Square Pearson coefficient, and V-Cramer and Phi tests were used to examine the relationship between predictor (independent) variable (Education level of mother) and criterion (dependent) variable (major choice). According to findings, Pearson chi-square value was 38.672 and

degree of freedom was 16; this was significant below 0.01. Also according to Phi and V-Cramer tests, the relationship between these two variables was significant below 0.01. Therefore, it can be concluded that there is relationship between high school students' mothers' education level and chosen major with 99% confidence level.

B) Parent occupation:

Father occupation:

The contingency table, Chi-Square Pearson coefficient, and V-Cramer and Phi tests were used to examine the relationship between predictor (independent) variable (Occupation of father) and criterion (dependent) variable (major choice). According to findings, Pearson chi-square value was 39.839 and degree of freedom was 8; this was significant below 0.01. Also according to Phi and V-Cramer tests, the relationship between these two variables was significant below 0.05. Therefore, it can be concluded that there is relationship between high school students' fathers' occupation and chosen major with 99% confidence level.

Mother occupation:

The contingency table, Chi-Square Pearson coefficient, and V-Cramer and Phi tests were used to examine the relationship between predictor (independent) variable (Occupation of mother) and criterion (dependent) variable (major choice). According to findings, Pearson chi-square value was 21.516 and degree of freedom was 8; this was significant below 0.01. Also according to Phi and V-Cramer tests, the relationship between these two variables was significant below 0.01. Therefore, it can be concluded that there is relationship between high school students' mothers' occupation and chosen major with 99% confidence level.

C) Number of family members:

The contingency table, Chi-Square Pearson coefficient, and V-Cramer and Phi tests were used to examine the relationship between predictor (independent) variable (Number of family members) and criterion (dependent) variable (major choice). According to findings, Pearson chi-square value was 15.438 and degree of freedom was 12; this was not significant below 0.05. Also according to Phi and V-Cramer tests, the relationship between these two variables was not significant. Therefore, it can be concluded that there is no relationship between high school students' number of family members and chosen major.

Third hypothesis test:

There is relationship between high school students' previous academic performance and their chosen field.

The contingency table, Chi-Square Pearson coefficient, and V-Cramer and Phi tests were used to examine the relationship between predictor (independent) variable (previous academic performance) and criterion (dependent) variable (major choice). According to findings, Pearson chi-square value was 87.004 and degree of freedom was 64; this was significant below 0.05. Also according to Phi and V-Cramer tests, the relationship between these two variables was significant below 0.05. Therefore, it can be concluded that there is relationship between high school students' previous academic performance and chosen major with 99% confidence level.

Conclusion:

According to findings of first hypothesis, the relationship between high school students' personal characteristics (gender) and major selection was not confirmed. This finding is inconsistent with findings of Kasi (1984), Office of Research and Planning of Ministry of Education (1992), and Rabbani and Rabie (2011). However, the relationship between high school students' personal characteristics (Residence location) and major selection was confirmed. This finding is consistent with findings of Frank (2003).

According to findings of second hypothesis, the relationship between high school students' family characteristics (Education level of parent, occupation of parent) and major selection was confirmed. This finding is consistent with findings of Kiani (1990), Bali Tirkadeh (1996), and Navidi (2000); it is inconsistent with findings of Shafagatian (1998). However, the relationship between high school students' family characteristics (Number of family members) and major selection was not confirmed.

According to findings of third hypothesis, the relationship between high school students' previous academic performance and major selection was confirmed. This finding is consistent with findings of Chaichi (1983), Omidian (1995), Rabbani and Rabie (2011), and Hellatabadi (1998).

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