


A Mixed-Method in Identifying the Harms of Educational-Vocational Guidance Process Students and Graduates of the University of Tehran

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ABSTRACT

The present study aimed to identify the harms of the educational-vocational guidance of students of University of Tehran with a mixed-methods approach. In the first part the level of academic major satisfaction was compared with a quantitative approach which was applied in terms of purpose and a descriptive survey in terms of method. The population of the study included all bachelor, master and doctoral students of the University of Tehran in four departments of engineering, experimental sciences, humanities and basic sciences that a sample was selected by non-randomly convenience strategies with a volume of 361 people who answered the Nauta's Academic Major Satisfaction questionnaire. The results showed that there is no significant difference between academic major satisfaction according to the variables of gender, grade and having the experience of changing major. However, there was a significant difference between students studying in different semesters and departments. The second part was conducted with a qualitative approach using phenomenological method in order to identify the negative consequences of undesirable educational-vocational guidance and the ways of facing with consequences. Research data were collected by semi-structured interviews with 25 students and graduates of University of Tehran who were selected by purposeful method. Findings showed that the negative consequences were classified into 25 sub-themes and six general themes of educational, psychological, family, economic, individual-social and physical consequences. Moreover, by extracting 11 sub-themes, it was shown that individuals did a variety of activities, including academic, social, vocational, adaptive and coping activities in order to reduce the consequences.

Keywords: Mixed method, Educational, Vocational guidance, Negative consequence

Introduction

Educational-vocational guidance (E-VG) is one of the considerable issues in educational systems of developed and developing countries that is implemented in different forms at schools in order to make students aware of

their strengths and interests to make decision for their career path (Haug et al., 2018; Yuen et al., 2020). Entrance to secondary school and choosing a major can be an introduction for choosing academic major at university and consequently being on a specific career path that limits job opportunities in the future (Babarovic et al., 2020). Conducted surveys about educational-vocational guidance show different factors influencing on this process that the most indispensable criterion is individuals' interests and talents (Zhang et al., 2021; MacDonald & Durdyev, 2021).

E-VG is on the path that meets the society need on the one hand and individuals' need on the other hand. Therefore, undesirable E-VG can cause confusion, anonymity, academic failure and lack of motivation (Mimis et al., 2019) and also waste of society resources and depreciation of human and economic resources (Moosavi et al., 2020). Many studies show that students follow their educational-vocational goals when they have no clear knowledge of their interests and abilities and also have no realistic information about labor market and its required skills (Subtirica & Pop, 2018; Babarovic et al., 2020). Thus, undesirable outputs in the higher education and labor market can be the negative consequences of wrong E-VG. The issues of leaving the university (Zarafshani et al., 2016), feeling failure and financial problems for universities and students (Soppe et al., 2019) can be some examples for negative consequences.

Reviewing conducted researches, there is more focus on secondary school students' population with emphasis on E-VG phenomenon, influential factors on E-VG, challenges, obstacles and providing models for E-VG with a quantitative approach and limited studies focus on students' population in universities and long-term effects of undesirable E-VG. Consequently, the present study aims to identify harms of the educational-vocational guidance of students of University of Tehran. The research questions are as follow:

1. Is the academic major satisfaction of students of University of Tehran different according to demographic variables?
2. What are the negative consequences of undesirable E-VG from students of University of Tehran perspective?
3. What are the methods used by students of University Tehran in order to reduce negative consequences?

Methodology

The first part aimed to compare the level of academic major satisfaction with a quantitative approach among students of University of Tehran studying in 2021. The present study was applied in terms of purpose and a descriptive survey in terms of method. The population of the study included all bachelor, master and doctoral students of the University of Tehran in four departments of engineering, experimental sciences, humanities and basic sciences that a sample of this population was selected by non-randomly convenience strategies with a volume of 361 people who answered the Nauta's Academic Major Satisfaction Scale (AMSS). AMSS includes six questions which are about students' feelings about their academic major and their opinions about changing major. The participants rate the questions on a five-point Likert's scale from 1 (strongly disagree) to 5 (strongly agree). The reliability of the inventory based on Cronbach's Alpha in Nauta's study (2007) was 0.94 and in Schenkenfelder's study (2017) was 0.91. In the present study the reliability of AMSS based on Cronbach's Alpha is 0.90.

The second part of study was conducted with a qualitative approach using descriptive phenomenological method in order to identify the negative consequences of undesirable educational-vocational guidance and the ways that students face the consequences in order to reduce them. Research data were collected by semi-structured interviews with nine dissatisfied students with their current academic major, 11 students with experience of changing majors, and five graduates having careers unrelated to their academic major who were selected by

purposeful method using a criterion-based, convenience and snowball methods and the data analyze was conducted by the Colaizzi's distinctive seven-step process.

Findings

In order to analyze research data in first part of the study, first of all, the prerequisites for statistical tests which are normality and homogeneity of variances were examined by Skewness & Kurtosis and Leven's test, respectively. Due to this fact that the amount of skewness (-0.41) and kurtosis (-0.72) are between -2 and 2, thus, the distribution of the research variable that is academic major satisfaction is almost normal. Moreover, regarding to the significance level of the Leven's test (0.20) that is greater than 0.05, the assumption of variances homogeneity is demonstrated. The results of independent t-test and one-way ANOVA analysis in SPSS software showed that there is no significant difference between the level of academic major satisfaction according to the variables of gender, grade and having the experience of changing the major. However, there was a significant difference between students studying in different semesters and with increasing semester, the level of academic major satisfaction was decreased. Also, the level of academic major satisfaction was higher among humanity sciences students than the other three groups.

In the second part, based on the Colaizzi's seven-step process by extracting 68 important sentences, the negative consequences of undesirable educational-vocational guidance were classified into 25 sub-themes and six general themes of educational, psychological, family, economic, individual-social and physical consequences. Also analyzing 50 important sentences and extracting 11 sub-themes, it was shown that individuals did a variety of activities, including academic, social, vocational, adaptive and coping activities in order to reduce the consequences.

Table 1

Negative consequences of undesirable educational-vocational guidance

No	General themes	Sub-themes
1	Educational consequences	Reduction of interest in studying Academic failure Prolongation of the study period Loss of opportunity of learning specialized courses Reduction of tendency to continue education Weakness in basic courses Learning disabilities
2	Psychological consequences	Low self confidence Feeling of failure Depression experience Feeling of inadequacy Sleep disorder Confusion Fear of being judged
3	Family consequences	Lack of family support Family blame Devaluation of academic majors by family Distrust of family in student's decision-making

4	Economic consequences	Lack of financial independent Income level Lack of labor market Tight budget
5	Individual-social consequences	Waste of time Lagging behind peers
6	Physical consequences	Physical problems

Table 2*Activities in order to reduce negative consequences*

No	General themes	Sub-themes
1	Academic activities	Changing major Self-study Achieving accomplishment
2	Social activities	Take part in student's communities Expanding social relationships
3	Vocational activities	Working in the field of interest Learning job skills
4	Adaptive activities	Acceptance of situation Psychological counseling
5	Coping activities	Being absent in classes Cigarette use

Conclusion

In order to answer the first question, the students were classified into five demographic groups of gender, grade, semester, academic department and having the experience of changing major. In spite of gender classifications for academic majors (Zhang et al., 2021) there was no significant differences between male and female students. Regarding to having the experience of changing major, in contrast with Nauta (2007) study that showed significant differences between students who had changed their majors with other ones that did not, in this study there was no significant differences between these groups. On the other hand, the results showed that academic department could affect academic major satisfaction (AMS), as the humanity sciences students were more satisfied compared to other departments. Moreover, AMS was diminished in the higher semesters. It can be argued that as the semester goes up and students gain more experiences, the differences between expectations and experiences are increased which lead to low AMS.

In the second part, the negative consequences of an undesirable educational-vocational guidance and the ways of facing with them were analyzed. Two of the most indispensable consequences were Educational and Psychological ones which were strongly related. Indeed, it can be argued that individuals show lower performance in situations which are not fit with their interests and abilities comparing to best fit ones. Therefore, psychological consequences (e.g., feeling of failure, low self-confidence, depression...) can be as the result of comparison of low educational performances with high standards or peers' achievements. Family consequences were indirectly occurred particularly for students that had chosen humanity and social sciences majors instead of engineering or medical sciences. One of the main reasons of changing major to humanity and social sciences majors was

economic consequences that participants studying engineering and medical sciences had encountered economic issues like; lack of labor market or low income.

One of the most common ways of facing with negative consequences was changing major, as 11 participants were students who had changed their academic majors and some of the other students intended to change their major. Adaptive activities like acceptance of situation were the other common way particularly among graduates that despite not interested in their field of studies, they had graduated from majors which were not their favorite. In contrast with adaptive activities, some participants did some activities that had increased the negative consequences. For instance, being absent in classes could boost the academic failures or prolong the study period.

- With regard to the participants' experiences about popularity of specific academic majors and lack of awareness of other majors, it is suggested that students and professors make more efforts to expand valid knowledge about their majors in order to make public more aware about all academic majors.
- One of the issues explained by participants was the inefficiency of the theories taught at the university in meeting the labor market needs. Therefore, it is recommended that a curriculum revision be conducted by analyzing the changes in the labor market and clarifying the required skills in occupations by a need assessment from students and labor market.
- It seems that a majority of students have no knowledge about Kahad and Two-dimensional courses in University of Tehran that provide an opportunity for students to study their favorite academic majors. It is suggested that the professors in the classes make students aware of such programs or social medias can be a fundamental platform to make students informed.

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