Study of Personality Type and Relationship With Job Selection Between Iranian and American Students

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Background: Today, continuous emergence of new jobs and elimination of old jobs have made a lot of problems for some individuals and in the meantime, developing countries transferring from traditional economy to world economy are more influenced by these changes.
Objectives: Considering the importance of personality types and the role of culture in job selection, the current study was conducted aimed to examine personality types in students of Iran and America.
Patients and Methods: The study method was correlation. The statistical population consisted of all students at Ferdowsi University of Mashhad, Iran and all the students at El-Camino College, America in the academic year 2012-2013. The participants were selected using convenience sampling method. Using Cochran's sample size formula, 320 students (170 Iranian students and 150 American students) were selected from two universities and questionnaires were distributed among them. Data collection tools included Holland's vocational personality questionnaire in six personality types of social, artistic, conventional, realistic, enterprising, and investigative that its validity and reliability have been confirmed in different countries. The obtained data were analyzed using descriptive statistical indices, Z-test and Chi-squared test.
Results: The findings of the study showed that: 1) There was a significant relationship between Iranian students' personality type and their job 2) There was compatibility between American students' personality type and their job 3) There was not a significant difference between correlation rate of personality type and job in two groups of Iranian and American students.
Conclusions: Considering the obtained results, job selection by students in both Iranian and American groups was not independent from their personality type.

Keywords: Job Selection; Personality Type; Culture

1. Background

Today, continuous emergence of new jobs and elimination of old jobs have made a lot of problems for some individuals and in the meantime, developing countries transferring from traditional economy to world economy are more influenced by these changes (1). In other words, with the development of science and technology and constant changes in the world of jobs and increasing demands for some professions, job selection has made a very difficult matter (2).

It is crystal clear that individuals who have a profession compatible with their personality are more likely to progress and be satisfied; because a profession compatible with the personality determines the individual's quality of life (3).

The influence of the personality on different aspects of life is undeniable (4). The results of many studies suggest the influence of personality type on job decision making (5), job evaluation (6), job burnout (7) and major selection (8).

Eswaran et al. (9) believe that personality type has a significant influence on behaviour Organisation and Holland (10) has examined individuals based on personality type in six domains of realistic, investigative, artistic, social, enterprising and conventional (11). And it indicates that there is a relationship between individuals' job interests and their personality type (12).

Realistic type is the first personality type in his classification. Individual with realistic personality type prefers jobs like engineering; He/she appreciates objective values and tangible personal characteristics and has the traits of non-social, frank, obstinacy, material, natural and egocentrism (13).

An investigative individual prefers investigative jobs or situations and avoids enterprising jobs; He/she appreciates science. These individuals usually have the traits of analyst, alert, critic, curious, independent, meticulous, logical and (14).

Artistic type leads to obtaining artistic competences in language, music, drama and writing and lacks clerical or commercial systematic competences. They use artistic competences to resolve problems at work and in other environments and appreciate aesthetic qualities (14).

Activities of individuals with social type lead to managing others to inform, teach, develop, treat or guide

them which result in obtaining competences in human relationships such as interpersonal and instructional competences and lacking technical competences. Also, individuals with enterprising personality type are interested in managing others to achieve goals of an Organisation or earn economic income.

He/she considers him/herself aggressive, popular, self-confident, sociable, an individual who has the abilities of leadership and giving speech and lacks the scientific ability (13). Finally, individuals with conventional personality type engage in activities which their consequences are simple and regular activities. They consider themselves conformable, organised (5).

Holland (10) believes that each type has its own specific traits. In his view, an individual has the highest efficiency when he/she engages in a work environment compatible with his/her personality. Comprehensive job evaluation, using evaluation of students' tendencies and compatibility of their personality with their job has indicated that Holland's vocational theory will have an appropriate influence on individuals' vocational progress through job evaluation methods and the importance of this matter results from the fact that considering the obtained results from career consulting studies, it yields more precise predictions on job selection and decision making (15). In other words, conscious seeking information about university majors before major selection can influence on students' satisfaction of education and achievement (16).

In the current circumstances of our country, the criterion of selection and employment is only applicants' skill which means educational degree and related work experience that it is considered the conditions of a job attainment while research findings and experiences of successful societies including America indicate that the secret of success of organisations and their job satisfaction is something more than only emphasising on the skills (17).

Additionally, in the view of Weininger and Lareau (18), cultural system can influence on the power and non-correlation of prefers. We know that culture plays an appropriate role in the formation of our behaviours with others (19). Certainly in this regard, it must be considered that cultural necessities have different degrees in every society and different instructional institutes and systems must not have the same career consulting without considering these levels (18). In fact, individuals' structured culture and its distance from the proposed culture in instructional systems determines learners' future job (20).

These statements suggest that the role of culture in general and family in specific in job selection is undeniable. For example, Japanese and American families attach special importance to "management" and "trading" and encourage their children to select these kinds of jobs while Iranian families guide their children towards clerical works (21).

2. Objectives

Considering the proposed points and the importance of personality types and the role of culture in job selection, the current study was conducted to examine personality types of Iranian and American students and its correlation with their job selection based on Holland's theory.

3. Patients and Methods

The statistical population of this correlation study consisted of all students at Ferdowsi University of Mashhad, Iran (20000 students), and all students at El-Camino College (25000 students), America. The inclusion and exclusion criteria of student of both universities, have been between 18 to 30 years of age, that they have visited the central libraries of the two universities during the 2012-2013 academic year. Using convenience sampling method and Cochran's sample size formula, 170 Iranian and 150 American students were selected and questionnaires were distributed among them. After arranging with the selected students and asking for their consents for participation in the research, they were familiarised with the research objectives, the questionnaire and how to fill it in, 122 questionnaires (81%) from the American society and 141 questionnaires (83%) from the Iranian society were finally collected.

3.1. Research Tools

Holland's vocational personality questionnaire was used for data collection. The first part is dedicated to job classification, including a list of 500 jobs compatible with personality types divided into 6 social, artistic, conventional, realistic, enterprising, and investigative classes. The second part includes the 6 classes of career aspirations, activities, competencies, occupations, self-assessment, Organisation and responses. So far, more than 400 studies have been conducted in different countries using Holland's questionnaire and its validity has been confirmed (22).

In Holland's study (10), its reliability has been obtained between 0.75 and 0.78 by retesting after 4 years (since entrance to graduation time). In Iran, its reliability by Cronbach' Alpha has been reported 0.99 (23). In the current study, the reliability of this questionnaire by Cronbach's Alpha has been obtained 0.87.

In the study of Hoseinian and Yazdi (22), two methods of concurrent validity and sub-scale intercorrelations were used to confirm the validity of the questionnaire. Correlation of Holland's questionnaire with career aspirations has been obtained 0.45, indicating acceptable concurrent validity. Also, correlation between the sub-scales and the total score suggested the confirmation of Holland's Hexagon Model Theory. The gathered data were analysed using descriptive statistical indices, Z-test and Chi-squared test and SPSS 18.0 software.

4. Results

4.1. A-Descriptive Findings

First letters of personality types are used to present codes in Table 1. "R" is used for realistic, "I" for investigative, "S" for social, "C" for conventional, "A" for artistic and "E" for enterprising personality type. In this table, frequency and percentage of Iranian and American students are presented for three letter codes.

S.A.I (social, artistic, and investigative) was the highest code among Iranian students with frequency of 9, and E.C.S (enterprising, conventional, social) was the highest code among American students with frequency of 8. It should also be mentioned that the average range of participants was between 18 to 30 years of age. Table 2 indicates frequency and percentage of participants in the two groups considering their occupations. According to the inserted results in this table, the group of Iranian students consisted of 25 students of scientific occupations, 26 students of technical occupations, 7 students of skill fullness occupations, 45 students of educational occupations, 20 students of management occupations, 6 students of salesmanship occupations, 5 students of clerical occupations, 6 students of artistic occupations and 1 student of athletic occupations. Also, the group of American students consisted of 31 students of scientific occupations, 23 students of technical occupations, 12 students of educational occupations, 15 students of management occupations, 11 students of salesmanship occupations, 24 students of artistic occupations and 6 students of athletic occupations.

4.2. Inferential Findings

4.2.1. Is there a Relationship Between Iranian Students' Personality Type and Their Occupation?

The results of two variable chi-squared tests to answer the first question of the study in Table 3 indicated that there was a significant relationship between Iranian students' personality type and their occupation ($\chi2 = 77.83$, df = 44, P < 0.001); In other words, job selection by Iranian students is not independent from their personality type.

In continuation of the above analysis in order to examine the intensity of the relationship between personality type and job selection, the results of Phi Cramer (0.74) indicated a high relationship between these two variables. According to the obtained results and considering the presented frequencies in the table, the most number of students with realistic type have selected technical occupations (12 individuals), of students with investigative type technical occupations (9 individuals), of students with artistic type educational occupations (5 individuals), of students with social type educational occupations (26 individuals), of students with enterprising type educational and management occupations (6 individuals in each occupation) and of students with conventional type management occupations (2 individuals).

4.2.2. Is there a Relationship Between American Students' Personality Type and Their Occupation?

The results of the two variable chi-squared tests in Table 4 indicated that there was a significant relationship between American students' personality type and their occupation ($\chi2 = 77.40$, df = 30, P < 0.001); In other words, job selection by American students is not independent from their personality type. Examining the intensity of the relationship between personality type and job selection, results of Phi Cramer (0.79) indicated a high relationship between these two variables. The most number of students with realistic type have selected technical occupations (8 individuals), of students with investigative type scientific occupations (10 individuals), of students with artistic type artistic occupations (6 individuals), of students with social type scientific occupations (14 individuals), of students with enterprising type salesmanship occupations (4 individuals) and of students with conventional type salesmanship occupations (5 individuals).

Table 1. Frequency and Percentage of Participants in the Two Groups for Each Personality Type Code [a]

Personality Type Code	Iranian Students	Personality Type Code	American Students
S.C.I	5 (3.5)	S.C.A	1 (0.8)
S.C.E	2 (1.4)	S.C.I	3 (2.5)
S.C.R	1 (0.7)	S.C.E	7 (5.7)
S.A.C	1 (0.7)	S.A.C	6 (4.9)
S.A.I	9 (6.4)	S.A.E	3 (2.5)
S.A.E	4 (2.8)	S.A.R	1 (0.8)

[a] Personality types are used to present codes: "R" is used for realistic, "I" for investigative, "S" for social, "C" for conventional, "A" for artistic and "E" for enterprising personality type.

Table 2. Frequency and Percentage of Participants in the Two Groups for Different Occupations [a]

Occupations	Iranian Students	American Students
Scientific	25 (17.7)	31 (25.4)
Technical	26 (18.4)	23 (18.9)
Skillfulness	7 (5)	0
Educational	45 (31.9)	12 (9.8)
Management	20 (14.2)	15 (12.3)
Salesmanship	6 (4.3)	11 (9)
Clerical	5 (3.5)	0
Artistic	6 (4.3)	24 (19.7)
Athletic	1 (0.7)	6 (4.9)
Total	141 (100)	122 (100)

[a] Data are presented as No. (%).

Table 3. Frequency of Iranian Students With Different Personality Types in Different Occupations

Occupations	Dominant Personality Types						Test	
	Realistic	**Investigative**	**Artistic**	**Social**	**Enterprise**	**Conventional**	**χ2**	**df**
Scientific	4	8	2	8	3	0	77.83	40
Technical	12	9	1	2	1	1		
Skillfulness	2	1	1	1	2	0		
Educational	4	3	5	26	6	1		
Management	0	3	1	8	6	2		
Salesmanship	1	1	0	2	2	0		
Clerical	0	0	0	4	1	0		
Artistic	0	1	3	0	2	0		
Athletic	0	0	0	1	0	0		
Total	23	26	13	52	23	4		

Table 4. Frequency of American Students with Different Personality Types in Different Occupations

Occupations	Dominant Personality Types						Test	
	Realistic	**Investigative**	**Artistic**	**Social**	**Enterprise**	**Conventional**	**χ^2**	**df**
Scientific	2	10	1	14	2	2	77.40	30
Technical	8	5	3	1	3	3		
Skillfulness	0	0	0	0	0	0		
Educational	0	1	0	10	1	0		
Management	1	0	1	8	1	4		
Salesmanship	0	0	0	2	4	5		
Clerical	0	0	0	0	0	0		
Artistic	2	3	6	10	2	1		
Athletic	0	1	1	1	2	1		
Total	13	20	12	46	15	16		

4.2.3. Is There a Significant Difference Between Correlations of Personality Types and Occupations in Iranian and American Students?

Z test was used to answer this question (Equations 1 and 2).

Equation 1.
$$Zob = \frac{Zr1 - Zr2}{\sqrt{\frac{1}{n1-3} + \frac{1}{n2-3}}}$$

Zr1 = Converted value of correlation coefficient in the group of Iranian students; Zr2 = Converted value of correlation coefficient in the group of American students; n1 = The number of participants in the first group; n2 = The number of participants in the second group.

Equation 2. $Zob = \frac{0.9594 - 1.093}{\sqrt{1/(141-3)+1/(122-3)}} = \frac{-0.1336}{0.12} = -1.11$

According to the above formula, Zob = -1.11 and since this value is lower than 1.96, there is no significant difference between correlations of personality type in Iranian and American students and their occupation.

5. Discussion

Many factors such as mental ability and talent, environmental factors, considering the fact, professional interests and tendency and personality traits influence on professional and career planning from among these, personality traits have been considered by many researchers (24). The first finding of the current study showed that there was a significant compatibility between Iranian students' personality type and their job; In other words, job selection by Iranian students is not independent from their personality type.

In the view of Hoseinian and Yazdi (22), there are six environmental models in different occupations that each occupational environment is under the domination of the personality type similar to that environment. In this regard, the results of different studies suggest the relationship between personality types and jobs in Iran. Also, Holland's classification system was confirmed. This

result of the study is consistent with the findings in the studies of Memarzadeh and Mehrnia (25), Sadeghian and Jalali (26) and Rezaei et al. (5).

Memarzadeh and Mehrnia (25). concluded that compatibility between personality and job was one of the employment factors and among sixteen introduced types, ESTP, ISTJ and ISTP have been considered as the most compatible types. The results in the study of Sadeghian and Jalali (26) also indicated that there was a relationship between individuals' personality traits and their job. Rezaei et al. (5) in their study concluded that the examined students had obtained the highest scores in social and enterprising personality types. It must be stated that in order to select an appropriate job and better decision making on job selection, an individual's personality traits are necessary to be studied and in this regard, Holland's Theory can be used as a tool to select a job compatible with individuals' personality type. In order to explain this finding, it can be said that in spite of what exists in developing countries including Iran about job selection and although it is stated that continuous emergence of new jobs in developing countries transferring from traditional economy to world economy has made job selection a serious challenge (27).

The current findings suggest the compatibility between personality type and job selection that this result can be sought in possible reasons including effective career consulting in our country. On the other hand, it is crystal clear that individuals who have a job compatible with their personality type are more likely to progress and be satisfied; because in the view of Guichard (3), profession compatible with personality determines individuals' quality of life. In addition, career consulting that increases individuals' decision making skills on job selection can also improve individuals' self-efficiency in job selection (28-31). Therefore, there can be this explanation that career consulting has probably helped students to have a good knowledge of their personality type and as a result to select a more appropriate job. Another finding of the study showed that there was a significant relationship between American students' personality type and their job; In other words, job selection by American students is not independent from their personality type.

In this regard, the results of different studies suggest the relationship between personality types and jobs in other countries and the validity of Holland's classification system was confirmed. This result of the study is consistent with the findings in the studies of Long and Gordon-Crosby (6) and Sidiropoulou-Dimakakou et al. (32).

Long and Gordon-Crosby (6) examined cross cultural validity of Holland's model in Hong Kong and concluded that internal structure of Holland's model is consistent with Holland's formulation. Also the findings of Sidiropoulou-Dimakakou and colleagues (32) are consistent with the general theory and other international samples and it was the first test of Holland's psychometry in

Greece. Also in Holland's view, each type has its own specific traits and an individual has the highest efficiency when he/she engages in a work environment compatible with his/her job. On the other hand, career consulting in developed countries including America has led the examined students to select a job compatible with their personality type.

Lim et al. (33) and Chung (34) have confirmed the effect of career consulting planning on the improvement of job selection. In other words, career consulting has led individuals to plan for different job opportunities (35). In the view of Honkaniemi et al. (4), personality types play an important role in selecting different purposes in real life and there is a close relationship between personality types and individuals' correct perception. Thus, individuals' personality can play a role in their reactions towards different selections including the matter of job.

The last result of the study suggested that there was no significant difference between the correlations of personality types and jobs in the two groups of Iranian and American students. Considering the available examinations, there was not any study examining the correlation between personality types and jobs in Iranian and American students. This finding can be explained that Holland's Theory (the theory of compatibility between job and personality) can be used in different culture. In fact, its validity has been confirmed through this test once again and the applicability of this theory has been clearer.

Also, it can be said in different cultures in spite of different environmental circumstances, career consulting has helped students to select compatible job with their personality type. In fact, entrance to the business world in the current age which the world has faced big challenges and opportunities needs knowledge, skill and special traits and in this period, success is depended on having the latest knowledge and the ability to apply it in an innovative and effective way. There is not any other stable condition for the world of business and it is needed that instructional systems prepare individuals to select occupational life and cope with crises and challenges. Since career consulting provides motivation and the needed information for individuals and considering its framework and content, it can also influence on job prefers, job selection and its dependent variables (36).

In other words, since there are a lot of complications in the world of business, necessary information for jobs must be presented and applied aspects in the process of teaching and education must be achieved through this way. And this situation is possible when we have a complete knowledge about the job and we examine the influence of its personality and cultural-social factors and observe them precisely.

Adolescents usually have an ambiguous and limited interpretation of business world. The jobs which they select often are unreal and inaccessible regarding available facilities and having the needed abilities to attain the job. Their job selections are usually based on social prestige,

credit and income. Considering the complicated nature of personality traits, qualitative methods are useful to achieve real results. And this matter can be pursued as an independent study work. On the other hand, neurological explanations of individuals with different personality types and the reason of compatibility between the jobs and these personality types can be addressed. Among the limitations of this study is its sampling method (convenience sampling). Since the sampling method is non-accidental, the obtained results cannot be generalised. Although accidental sampling is a good sampling method and the sample can be generalised to the population, it was expensive and time-consuming for the researchers. Thus, one of the limitations of the current study is that the sample cannot be generalised to the population. Therefore, it is recommended that probability sampling methods are used to obtain more reliable results.

Therefore Holland's personality type questionnaire can help job consulters and their clients. Finally, it is recommended to use qualitative methods to assess personality types and job selection in future studies. On the other hand, future studies can examine neurological explanations for consistency between personality types and job selection. It is also recommended to study the effective factors of job selection for the prospective researches.

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Authors' Contributions

Study concept and design: Nasrin Rafaee Saeedi; analysis and interpretation of data, Ali Ghanaei Chamanabad; drafting of the manuscript: Hosein Akbari Amarghan.

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