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Development of an entrepreneurship scale for students in the departments of foreign languages

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Abstract

With the rapid increase in the number of universities in Turkey, the number of graduates in the field of foreign languages has increased considerably as in every field. Following this, it has become difficult to find employment opportunities at civil service, and individuals have started to search for jobs in different fields. Therefore, there is a need for educated individuals who have developed themselves well in their field, who can take advantage of all kinds of opportunities in their field, who can take all risks, positive or negative, and who can bring new perspectives to the related sectors in their major. The purpose of the present research is to develop a valid and reliable measurement tool that can measure entrepreneurship among Foreign Language Students. The participants of the research were composed of randomly selected 123 students (24 males, 99 females) at the departments of Foreign Languages in state and private universities affiliated to the Council of Higher Education, Turkey. The data were collected using an item pool of student statements. The obtained data regarding the construct validity of the developed scale were analyzed through factor analysis, and the number of sub-dimensions of the scale was determined via principal components analysis. Afterwards, the level of the internal consistency coefficient of the scale was determined.

Keywords: Entrepreneurship, foreign languages, scale, higher education

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1. Introduction

Entrepreneurship is a concept that maintains its importance during a long period of time both in the world and in Turkey. In recent years, entrepreneurship has been considered as innovative and improving as well as organizing and managing by assuming certain risks. Entrepreneurs recognize opportunities, evaluate them and transform them into marketable ideas. Individuals who seek opportunities and innovations by calculating the relevant risks and combine factors of production make the development level of the society higher (Demirel and Tikici, 2004, p. 49). Entrepreneurs who are indispensable elements of economies are seen as the key for dynamism and development. Entrepreneurs who are the determinants of the development levels of societies have a number of features that make them.

The most important element in entrepreneurship is that the person or persons have a high degree of entrepreneurial spirit. Based on these entrepreneurship levels, people start their business life and make decisions about their lives. Therefore, in order to realize all these, people must have some vital characteristics (Yılmaz & Sünbül, 2009). These are:

- * Creative Thinking
- * High Willingness Level of to Work
- * Determination and Perseverance
- * Communication Skill
- * Courage and Diligence
- * Ability to Express Oneself Accurately and Clearly
- * High Motivation
- * Imagination
- * Team spirit
- * Having a Mission and Vision
- * Being Insightful and Tolerant
- * Being Reliable
- * Having a High Level of Persuasiveness
- * Having Leadership Qualities
- * Having Management Skills

Every state and every state system wants to raise individuals with entrepreneurial spirit, since these individuals will shape both the economic and sociological development of that country and contribute to the development of the country. Therefore, entrepreneurship education to be given from childhood is very important in instilling the entrepreneurial spirit and consciousness. In this process, parents and teachers have great responsibilities. Education systems providing entrepreneurship education encourage entrepreneurship more and raise successful entrepreneurs and will be able to contribute more to the development of their societies. The main purpose of entrepreneurs is to contribute to their societies by creating an economic value because an entrepreneur is the person who sees the opportunity to achieve and takes action, lives in the future and constantly sets new goals and tries to be successful.

Having an entrepreneurial spirit in the field of foreign language basically means having a mission and vision for the field. One of the most important things in terms of future employment in Turkey is to be competent in at least one foreign language, which reveals the fact that students studying in the field of foreign language may need different entrepreneurial competencies such as General Foreign Language Competencies, namely, competence in four basic language skills, recognizing and knowing the culture of the language they dominate, making the right cultural transfer, and making different breakthroughs related to the field emerges. Therefore, it will be beneficial to include content that will increase and develop entrepreneurship awareness in the curriculum, starting from the primary school level, and including higher education institutions.

1.1. Purpose of the Study

The study focuses on a measurement tool that can measure the entrepreneurial tendencies of students who will graduate from foreign language departments. Although there is no study related to this subject in the literature, some studies have been carried out on the entrepreneurial features of university students in general. For example, Avsar (2007) reported that university students have a moderate level of entrepreneurship. Comparing the findings across faculties, it was found that the entrepreneurship levels of the students of the Faculty of Economics and Administrative Sciences were higher than the other faculties. In that study, the lowest level of entrepreneurship was found among the students of the faculty of education. Similarly, in the studies conducted by Karabulut (2009) and Patir and Karahan (2010), it was concluded that most of the university students did not work in a newly established business, did not start their own businesses, and did not want to start their own business and become an entrepreneur after graduation, despite receiving entrepreneurship education. In the studies conducted by Cansız (2010) and Oztürk, Köksal and Kıraç (2014), it was stated that university students have high levels of entrepreneurship, yet they lack knowledge about how to carry out this process.

The aim of this study is to develop a valid and reliable measurement tool that can measure entrepreneurship among Foreign Language Students and to determine the entrepreneurship levels of the students in the foreign language departments of the universities and to compare the entrepreneurship levels of these students in terms of the gender variable. Based on this purpose, the research questions of the study are formulated as follows.

1- What is the entrepreneurship level of the students studying in Foreign Language Departments?

2- Do the entrepreneurship levels of the students vary significantly by gender?

2. Method

2.1. Research design

The present study is an exploratory study as it is conducted about a research problem when there are few or no earlier studies to refer to or rely upon to predict an outcome. The focus is on gaining insights and familiarity for later investigation or undertaken when research problems are in a preliminary stage of investigation. Exploratory designs are often used to establish an understanding of how best to proceed in studying an issue or what methodology would effectively apply to gathering information about the issue (Cuthill, 2002, p.81). For data collection a mixed method of qualitative and quantitative techniques was employed.

2.2. Participants

The total of 123 students studying in foreign language departments of state and private universities affiliated to the Higher Education Institution in Turkey constitute the study group of the research. Random method was employed in the selection of the sample. Of the students within the scope of the research, 99 are female and 24 are male.

2.3. Data Collection

The scale was developed by researchers in order to determine the entrepreneurial characteristics of students studying in foreign language departments. Before determining the items of the scale, a total of 105 students studying in foreign language departments were asked to write an essay presenting their ideas, thoughts and attitudes about entrepreneurship. After the essays written by the students were collected, the statements written by the students were turned into sentences. Additionally, an item pool was formed by conducting a literature study on this subject. There were 67 pre-scale item sentences in this item pool. The sentences in this item pool were examined by two faculty members who are experts

in the field of Turkish Language, and the number of items in the scale was reduced to 60 in line with the expert opinions and results of the reliability analysis. Finally, these sentences were put into the Likert type scale format and a 5-point Likert type form was created. The scale included "Strongly Agree" (5), "Agree" (4), "I am undecided" (3), "Disagree" (2) and "Strongly Disagree" options. After the first version of the scale was applied to 123 students, the data obtained were tested with factor analysis in order to reveal the Cronbach Alpha reliability analysis and validity. As a result of the reliability analysis, the Cronbach Alpha reliability coefficient of the scale was found as 0.875.

2.4. Data Analysis

In the process of developing the Entrepreneurship Scale for Foreign Language Departments, item mean, item standard deviation, item test correlation, factor analysis and Cronbach's alpha reliability coefficients; and in the research dimension, arithmetic mean, standard deviation and independent two-sample t-test techniques were employed. The analysis of the data obtained was done on the SPSS 22 program. The values given below were taken as the basis in the evaluation of the entrepreneurship levels of the students.

50-90	Very Low Entrepreneurship
91-130	Low Entrepreneurship
131-170	Intermediate Entrepreneurship
171-210	High Entrepreneurship
211-250	Very High Entrepreneurship

Table 1. Entrepreneurship Level Score Ranges

3. Results

In this part of the study, the arithmetic means and standard deviations of the items of the Entrepreneurship Scale for students studying in Foreign Language Departments were calculated. In addition, item-total correlations and factor analyzes were performed. The mean and standard deviations of the scores obtained from the scale were compared according to the gender factor as well.

3.1. Results Regarding Validity

Validity reveals the extent to which a measurement tool measures the variable or variables that it is intended to be measured (Ercan & Sünbül, 2009). Validity tests are not based on any real numbers (Tavşançıl, 2005). Factor analysis was applied to all items in the scale, since 60 items in the entrepreneurship scale for departments related to Foreign Languages presented similar results among themselves and with the scale total scores. The fitness of the data obtained for factor analysis was tested with the Kaiser-Meyer-Olkin and Barlett test. The KaiserMeyer-Olkin (KMO) value was found as 0.787 in the principal components analysis. This value is sufficient according to expert opinions (Murphy and Davidshofer, 1991, Bacon, Sauer and Young, 1995, Tavşançıl, 2005, Ercan and Sünbül, 2009). As a result of the Barlett test, a score of 3746.665 (p<0.00) was obtained. This result shows that factor analysis can be conducted for variables (Aiken, 1996; Ercan & Sünbül, 2009).

Factor analysis techniques were used for the construct validity of the scale. Based on the positive results obtained from the Kaiser-Meyer-Olkin and Barlett tests, Compenant and Varimax factor analyzes were conducted in order to determine the main factors and dimensions of the scale. Neale and Liebert (1980) stated that factor loads ranging from 0.30 to 0.40 can be taken as the lower cut-off point in the formation of the factor pattern. All of the factor loads that emerge from the data obtained are above 0.40 and are grouped in four factors/dimensions. The four-factor total variance value of the scale is 45.96%.

Table 2. Factor Loads and Titles

Factor 1- Courage	31, 26, 42, 56, 23, 21, 15, 22, 29, 55, 38, 39, 4, 52, 24, 6, 36, 40, 20, 51, 37, 41, 43
Factor 2- Innovation	12, 13, 18, 11, 14, 25, 10, 59, 54, 34
Factor 3- Productivity	9, 8, 5, 1, 45, 44, 53, 35, 50, 30, 2, 57
Factor 4- Diligence	49, 46, 48, 47, 19, 58

Factor loadings, item mean and standard deviation, item test correlation coefficients and factor analysis results were obtained by varimax rotation.

Table 3. Item and Factor Analysis Results of the Entrepreneurship Scale for Foreign Languages Students

	Component				
_	Factor 1	Factor 2	Factor 3	Factor 4	Cronbach Alpha Coefficient

VAR00031	0,730	-	-	-	
VAR00026	0,718				
VAR00042	0,682				
VAR00056	0,646				
VAR00023	0,635				
VAR00021	0,597				
VAR00015	0,583				
VAR00022	0,576				
VAR00029	0,572				
VAR00055	0,571				
VAR00038	0,560				
VAR00039	0,544			0,919	
VAR00004	0,525				
VAR00052	0,518				
VAR00024	0,507				
VAR00006	0,503				
VAR00036	0,490				
VAR00040	0,479				
VAR00020	0,463				

VAR00051	0,460			
VAR00037	0,451			
VAR00041	0,445			
VAR00043	0,437			
VAR00012		0,771		
VAR00013		0,749		
VAR00018		0,705		
VAR00011		0,660		
VAR00014		0,626		
VAR00025		0,617		0,851
VAR00010		0,549		
VAR00059		0,502		
VAR00054		0,489		
VAR00034		0,461		
VAR00009			0,714	
VAR00008			0,663	
VAR00005			0,569	
VAR00001			0,563	
VAR00045			0,532	
VAR00044			0,495	

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VAR00053	0,494		0,805
VAR00035	0,464		
VAR00050	0,446		
VAR00030	0,440		
VAR00002	0,437		
VAR00057	0,430		
VAR00049		0,651	
VAR00046		0,589	
VAR00048		0,565	
VAR00047		0,544	0,729
VAR00019		0,472	
VAR00058		0,466	

3.2. Results Regarding Reliability

In order to test the reliability of the measurement tool, the internal consistency method was used, and the Cronbach-alpha reliability criterion was taken as the basis. In this criterion, values ranging from 0 to 1 are taken, and as the values get closer to 1, the reliability of the scale increases (Büyüköztürk, 2007).

Table 4. Factor Loads Reliability Values

Factor 1	31, 26, 42, 56, 23, 21, 15, 22, 29, 55, 38, 39, 4, 52, 24, 6, 36, 40, 20, 51, 37, 41, 43	0,919
Factor 2	12, 13, 18, 11, 14, 25, 10, 59, 54, 34	0,851

Factor 3	9, 8, 5, 1, 45, 44, 53, 35, 50, 30, 2, 57	0,805
Factor 4	49, 46, 48, 47, 19, 58	0,729

In the developed scale, the reliability values of the factors of the scale were calculated as 0.919, 0.851, 0.805, and 0.729. These values indicate that the scale is quite reliable (Tavşançıl, 2005; Yıldırım, 2005).

		n	Mean	St. error	T value	P value
Factor 1	Male	24	97,041	2,317	-0,844	0,400
	Female	99	99,050	1,028		
Factor 2	Male	24	42,583	1,030	0,781	0,436
	Female	99	41,575	0,583		
Factor 3	Male	24	44,708	1,571	0,140	0,889
	Female	99	44,494	0,646		
Factor 4	Male	24	23,583	0,805	-0,765	0,121
	Female	99	24,191	0,340		
Total	Male	24	207,916	4,525	-0,305	0,761
	Female	99	209,313	1,967		

Table 5. Comparison of Entrepreneurship Factors Levels of Male and Female Students

The comparison of Factor 1 entrepreneurship levels of the students of the Foreign Languages department in terms of gender was conducted with the independent samples t-test and the findings are presented in Table 5. The Factor 1 entrepreneurship scores of female students' average are 99,050; and for male students, it is 97,041. Considering the result of the t value obtained, no significant difference was found across genders. The t value obtained from the difference in scores of the groups was not significant. No significant difference was found between the Factor 1 entrepreneurship levels of the students.

The comparison of Factor 2 entrepreneurship levels of the students of the Foreign Languages department in terms of gender was conducted with the independent samples t-test and the findings are presented in Table 5. The Factor 2 entrepreneurship scores of female students' average are 41,575; and for male students, it is 42,583. Considering the result of the t value obtained, no significant difference was found across genders. The t value obtained from the difference in scores of the groups was not significant. No significant difference was found between the Factor 2 entrepreneurship levels of the students.

The comparison of Factor 3 entrepreneurship levels of the students of the Foreign Languages department in terms of gender was conducted with the independent samples t-test and the findings are presented in Table 5. The Factor 3 entrepreneurship scores of female students' average are 44,494; and for male students, it is 44,708. Considering the result of the t value obtained, no significant difference was found across genders. The t value obtained from the difference in scores of the groups was not significant. No significant difference was found between the Factor 3 entrepreneurship levels of the students.

The comparison of Factor 4 entrepreneurship levels of the students of the Foreign Languages department in terms of gender was conducted with the independent samples t-test and the findings are presented in Table 5. The Factor 4 entrepreneurship scores of female students' average are 24,191; and for male students, it is 23,583. Considering the result of the t value obtained, no significant difference was found across genders. The t value obtained from the difference in scores of the groups was not significant. No significant difference was found between the Factor 4 entrepreneurship levels of the students.

The comparison of total entrepreneurship levels of the students of the Foreign Languages department in terms of gender was conducted with the independent samples t-test and the findings are presented in Table 5. Total entrepreneurship scores of female students' average are 209,313; and for male students, it is 207,916. Considering the result of the t value obtained, no significant difference was found across genders. The t value obtained from the difference in scores of the groups was not significant. No significant difference was found between the total entrepreneurship levels of the students.

In terms of the general entrepreneurship averages, it is seen that the average entrepreneurship scores of university students are 209.61. Since this value is within the range of 171-210 points, the entrepreneurship score averages of the students are within the high-level entrepreneurship range.

4. Discussion

The findings revealed that the Entrepreneurship Scale for Foreign Languages Students is a valid and reliable measurement tool. The fact that 51 items in the scale have a factor load of 0.40 or more indicates that the construct validity of the scale is quite high. However, in this study, this conclusion was reached only on the basis of the values obtained from this particular research. Therefore, this process emerges as a limitation of the research. For this reason, it may be necessary to study the validity of the scale developed further studies on this subject based on an external criterion. High item coefficients and reliability coefficients obtained in the study indicates that the internal consistency of the scale is high. In the gender dimension, which is another variable, no significant difference was found between female and male students in the level of entrepreneurship based on the data obtained. This finding is similar to the results of some studies conducted in the entrepreneurship dimension (İnceoğlu & Aytar, 1987; Yılmaz & Sünbül, 2009). However, in some other studies, it was concluded that male individuals are more assertive and enterprising (Arı, 1989).

According to the findings obtained, the entrepreneurship level scores of the students studying in foreign language departments were in the "High Entrepreneurship" score range based on the entrepreneurship scores evaluation criteria in the scale used. In order for this score to rise to a very high level of entrepreneurship, awareness of entrepreneurship and training on this issue should be increased. In the studies conducted by Chen and Lai (2010) and Öztürk, Köksal and Kiraç (2014), it was reported that the studies on entrepreneurship increased students' awareness of entrepreneurship and encouraged entrepreneurial personality traits. In addition, along with education, social motivation is also very important in this process, since social motivation is very important in shaping the social lives and attitudes of individuals. Entrepreneurship is treated together with the socio-economic and cultural structure of the society (Aytac and Ilhan, 2008). All related studies have stated that the family factor is very important in entrepreneurship (Arslan, 2011, Irmiş & Barutçu, 2012). The father's entrepreneurial spirit, the father's role in the family with this entrepreneurial spirit, and the child's decision in line with this role affect the child's beliefs on entrepreneurship.

5. Conclusions

Entrepreneurship is actually one of the most important driving factors in the development of a society in every field. It is very important that individuals with an entrepreneurial spirit are raised, and they are provided with opportunities in

entrepreneurship. Especially foreign language knowledge and effective use of a foreign language are very important. For this reason, it is very important for students who will graduate from departments related to foreign languages to have an entrepreneurial spirit. The entrepreneurial spirit related to a foreign language is also very important in the economic and sociological development of a country and society. In a world that seems huge today, but in fact we can fit it into a mobile phone, countries invest in many fields related to foreign languages. Therefore, many countries have included foreign language education in their education programs. For this reason, it is very important for students who study foreign languages and in departments related to foreign languages to develop and use all their foreign language skills. Entrepreneurship in the field of foreign languages is not just about knowing the language and using that language very well. It is also to make breakthroughs related to the language that one has mastered, to produce ideas and to implement them in a very effective way. For this reason, being able to put forward creative ideas is at the center of entrepreneurship. In the process of being aware of individuals' entrepreneurship, supporting their entrepreneurial motivation and supporting entrepreneurial steps, a great deal of responsibility falls on the education systems of the countries.

Therefore, it will be effective to organize conferences, seminars and informative meetings for students in order to increase the entrepreneurship level of students studying in foreign language departments. It will also be very beneficial for students to hold discussions and panels with people who have come to the fore in entrepreneurship in the society. Students can be directed to projects on entrepreneurship that are particularly relevant to their fields and can be included in such projects.

Especially the entrepreneurship levels of developing countries are quite high. With the expanding abroad, the need for foreign languages has increased considerably in Turkey. This has led to the necessity of making new investments in the field of foreign language in the country, both educationally and economically. In the planning of these investments, it is very beneficial to include all aspects related to entrepreneurship, since it is very important for the individuals who will take part in this field to have an entrepreneurial and assertive spirit in foreign languagerelated investments. Therefore, it is important for students who will graduate from foreign language departments to have an entrepreneurial spirit.

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