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An Investigation of the Methods for Establishing Creativity in the Effectiveness of Entrepreneurship Trainings in Iran

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ABSTRACT

At present that our country is faced with important problems and deficiencies such as brain drain, unemployment or the lack of job for graduates and the lack of an expert human force at the level of the society, nurturing and training an entrepreneur force in the country is very important. Entrepreneurship is the process of identifying new opportunities, establishing new and innovative enterprises and organizations for exploiting the identified opportunities, as a result of which new products and services are presented to the society. Economic development in developed countries shows that economy is affected by entrepreneurship, so that entrepreneurs have played a central role in the economic development of developed countries. The purpose of the research is to examine the role of creativity including data collection, evaluating and applying it on the entrepreneurs and entrepreneurship courses, reducing unemployment problems by entrepreneurship, stimulating capitals and the skills that may have been useless.

The method of the research is a descriptive-survey one. And questionnaire and interviews with the learners of entrepreneurship courses are used to collect data. The population of the research is the learners of the entrepreneurship courses and classes with general education and the university students or people with university educations and university professors of this major in Zanjan. And the sample size is obtained by Cochran's formula and the class probability sampling method is used. The method of data analysis was using the descriptive-inferential statistics and SPSS Software was used to decrease the computational error. The results show that there is a difference between the views of people with general education and university education. Planning for holding the courses and the methods of establishing creativity must be consistent with the view of any group to get the required effectiveness.

KEYWORDS: creativity, entrepreneurship, innovation, entrepreneur, effectiveness.

1. INTRODUCTION

Knowing the role of creativity is very important in the process of innovation, because innovation is specific to entrepreneurs. It is a tool by which the entrepreneurs create wealth. Creativity is a process that can be developed and improved (Amel Mehrabi, E., 2008). In the present socioeconomic system, organizations face with extensive international changes and evolutions. These evolutions and alterations are due to wonderful scientific and technological advances that by themselves have led to presenting new views, necessities and needs and for responding to these needs and accompanying the mentioned evolutions and alterations, innovations and new methods must be used. Entrepreneurs believe that the success and the survival of one's perspectives need smartness, innovation and creativity (Ahmadpour, 2006).

Forming and developing small and active enterprises and organizations are certainly considered as an important policy in establishing new occupations, accelerating the improvement of the situations and the economic development of the country. Different sectors of the society including public sector, private sector, local cooperatives and even religious groups assign a main part of their resources to entrepreneurship and the development of small investments (Aslami Arani, 1998).

Undoubtedly, all of the human accomplishments that have been realized over the time are the result of creative attempts of the intellectual and innovative people. The mental concepts root in creative people and gradually, they are evolved by consecutive generations and are considered by entrepreneurs in most of such creative thoughts and finally they have introduced a new products to the market (Brockhous,H., 2001).

For this purpose, using creativity methods that lead to innovation in producing products and services must be noted by entrepreneurs and the learners of entrepreneurship courses to become useful both for them and the country using the creativity methods for producing wealth. For a better development and to be included in the group of the countries such as the U.S.A, Iran must pay a special attention to entrepreneurship by people and the studies show that people participating in the above mentioned courses don't still have the required ability after the end of the courses and can't use what they have learned efficiently to establish enterprises and increase the income, and these courses don't have the required effectiveness. For this purpose, decisions must be made about the problems of these trainings. Since the audiences of these courses are different people with different

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educations and views, they must be categorized according to their views and their level of education and the courses must be held based on it. In the following, this subject is described in detail.

THEORETICAL LITERATURE

Entrepreneurship is the factor of stimulating and encouraging the sense of competition, combining and providing factors of production, organizing the resources and using them efficiently, integrating the markets and their relations, removing the shortages, the gaps and the bottlenecks of the market and the community, it is one of the factors of production, it is the factor of reducing bureaucracy, evolving and renewing national and local life (entrepreneurship goes beyond job and career, it is a way of living), recognizing, establishing and extending new markets, the factor of innovation and change smoother, and it is the factor of balance in a dynamic economy (Ahmadpour et al., 2006).

In the definition of creativity, Robert Wizberg says:

Creativity is to create new and valuable accomplishments. According to Wizberg, this definition is universal on one hand and limited on the other hand. It is universal because any new accomplishment is considered a creative work and the way of creating it is inaccessible until it is valuable. But it does not mean that all of new and valuable accomplishments are creative. It is limited because in this definition, the works that are novel but still have a low value and even are not valuable become outdated, while a new and valueless work can be also creative! (Feizbaksh, Al., Abdolahi, A., 2008). Creativity is the basis of innovation and innovation is the basis of entrepreneurship. When innovation is provided based on a new and creative idea, and it establishes a new enterprise, produces wealth and increases the level of the welfare of the society, there is an entrepreneurship. (Talebi, K., 2008)

Creativity ⟶ Innovation ⟶ Entrepreneurship

Process of creativity

The process of creativity is a seven step course. The first six steps of this course are the main steps of creativity and the seventh step is somewhat the conversion of creativity to innovation that is to practice a new idea and create new things. The steps of the process of creativity are as follows (Donald, F., 2008):

The first step: mind preparation (read about everything)

The following points can be effective in mind preparation. Take a time for exchanging ideas with others. Take a trip. Participate in professional meetings of your major.

The second step: investigation (concentrate)

One of the requisites of being creative is to have a high perception and the power of analyzing the problems. It is first necessary to understand the problem, its components and its aspects to give ideas for anything. Professional study on the subject can make it easy to understand (Mohebi, A., 2007).

The third step: transformation

At this step, the set of the data collected from others' works is examined and connected to each other. Differences in our views and similar points in others' remarks help us state various stories with our scenario and present a new model that also covers the collected data (Aghayi, 2004).

The fourth step: the waiting period; incubation (give your mind a break)

Activities of the mind spontaneously play the main role during the incubation period or the time for incubating on the problem. If one doesn't get a result after taking the previous steps and can't create an idea, he/she hesitates, and gives the problem up and stops working. This pause in work may last hours, weeks and even years, but in contrast to what is apparently observed, in these periods, work does not really stop, but the subject goes to the unconscious and at any moment, the potential solution may emerge (Miri, A. 2008).

The fifth step: illumination (lamps are illuminated!)

This step is the spontaneous advance and clarification of the problem that it may last 5 minute to 5 years to reach it! (Manimala, M., 2002).

The sixth step: verification (adjust your idea to real conditions)

Sometimes, a new idea may have an acceptable result only in the laboratory and on the paper. But when it is practiced in the real situation, it is meaningless and inefficient. This step makes it clear that whether the new idea is practical and it is possible to produce it with a reasonable cost that is profitable for the entrepreneur or not.

The seventh step: implementation (target and fire it!)

There are many people that create new ideas, but most of them never practice their ideas. What makes entrepreneurs distinct from ordinary people is that they practice their ideas. But as it was mentioned before, converting an idea to an action is called innovation that is a step beyond creativity (Meyer, 2001).

Innovation

Innovation is a process by which opportunities are changed into ideas that can be presented to the market (Amel Mehrabi et al., 2008).

There are four types of innovation. They range from completely new products and services to modifications on the existing products or services. They are: invention, expansion, reproduction and synthesis, in the order of originality (Laimar, P., 2009).

Resources of innovation

Innovation is a tool by which the entrepreneurs usually use the changes and don't establish them. The internal and external circumstances that usually help as the resources of innovation are: unexpected events, heterogeneities, requirements of the process, changes of the market and industry, demographic changes, mental changes and concepts based on knowledge and awareness (Miles, M., 2000).

Entrepreneurship: an entrepreneur is someone that organizes, manages and accepts the risks of a business firm. An entrepreneur is the accelerator of the changes in the world of business. He/she is an independent intellectual that dares to be different in an environment of usual events (Fathian, M., 2010). Overall, entrepreneurship is defined as the process of creating new value (material or immaterial) through an accountable attempt by considering its risks. Another important point is that entrepreneurs are not capitalists, but they can use the available capitals very well and are able to exploit the science, profession and art of others (Alipour, M., 2010). Generally, entrepreneurship is the process of identifying new opportunities, establishing new and innovative enterprises and organizations for exploiting the identified opportunities, as a result of which new products and services are presented to the society. For realizing his/her idea, an entrepreneur provides the required factors such as land, working force, the raw materials, and the capital, and using the power of decision making, he/she applies the individual skills and talents on the design and the power of organizing his/her idea and in this way, he/she gains income (Ahmadpour, M., 2006).

Views and schools on entrepreneurship

There are two macro- and micro-views about entrepreneurship and it divides into schools that are described in the following. The macro-view about entrepreneurship includes a wide range of factors including external processes that are sometimes out of the control of the entrepreneur, because they show the view of external control centrality. In this view, factors are examined that are specific to the entrepreneurship and are considered as a part of the internal control centrality. In this view, the potential entrepreneur has the ability of controlling, directing or setting the outcome of any effective factor (Heinonen, J., 2003).

Environmental school of thinking

This school of thinking deals with external factors that affect on the living style of a potential entrepreneur. These factors can be positive or negative forces that form the entrepreneurship demands. Emphasizing on the institutions, values and the ceremonials forms a political-social environmental framework that affects greatly on the development of entrepreneurship. For example, if a middle-rank manager has the required freedom to support the nurture of ideas, concluding contracts, or establishing and institutionalizing new methods, the working environment helps the promotion of the desires to follow entrepreneurship affairs. Another environmental factor that often affects on the potential development of the entrepreneurs is their social group. The atmosphere of the friends and the relatives can be affective in stimulating entrepreneurship (Liang, T., 2002).

School of the attribute of entrepreneurship thinking

Many researchers and writers were interested in determining common attributes of successful entrepreneurs. This attitude is rooted in studying successful people that show similar characteristics and if one imitates them, his/her success will increase. For example, achieving an aim, creativity, the will and the technical knowledge are four actions usually displayed by successful entrepreneurs. Family and educational development are also examined. Some researchers have given reasons to reject the educational development of the entrepreneurs, because they believe that it prevents from the creative and quarrelsome importance of the entrepreneurs. But some other authors believe that new curricula are increasing, because it is demonstrated that they help the development of entrepreneurship. The idea of family development emphasizes the encouragement and the support existing in the family atmosphere of the entrepreneur. The above argument promotes the belief that the specific attributes defined and confirmed at the beginning of life will finally lead to the success of entrepreneurship (Morris, N., 2002).

The role of the entrepreneurs

Due to their important effects on economy, entrepreneurs play a vital role in the maintenance and the development of the economic system in human's life including: 1. Combining economic factors, 2. Supplying the efficiency and the competence of the capital, 3. Maximizing returns on the investment, 4. Processing

market's information (Perren, L., 2002). Evidently, the biggest problem of today's society, i.e. unemployment, can't be solved only by the government, and the cooperation of the private sector and the entrepreneurs are needed for this purpose. The cost for creating a job by entrepreneurs is 30 to 40 percent lower than the public sector. So it is for the benefit of the government to support young entrepreneurs. Technical trainings and entrepreneurship are the driving force of the society. If the human force is trained properly, the society grows. Training a creative, innovative and an efficient human force increases the value added of the society. If the entrepreneurship trainings are directed right, stable jobs and a fostered, specialized and a high skill force are created. The studies and statistics obtained indicate the participation of a high percent of people in the entrepreneurship courses held, while a significant number of the participators were not able to practice their skills and the rate of employment is still high. It shows that the needs of different groups of people must be noted and according to them, the content of the courses are designed to be useful.

Types of entrepreneurship models

According to the aspects of the attribute-behavioral approach, two types of model can be presented for entrepreneurship:

a. **Content models**: all of the attempts of the researchers on the study of the attributes approach that leads to identifying the personal traits of people are taken as a part of the classification. What must be noted is that the aim of the researchers in the attributes approach and the content models was to find a psychological framework and define entrepreneurship based on some individual characteristics, and according to the limitation of researches in dealing with and finding the individual characteristics, presenting a universal content model has failed. Based on it, instead of dealing with the attributes approach, researchers have turned to the behavioral approach and the process models (Baygrave,W., 2010).

b. **Process models**

There are different process models that one of them are described:

The process model of Jeffrey Taymons et al.: in 1985, Taymons et al. presented a model in which the environment considers the personal traits, motives, behavior, aims and results and emphasizes the ability of investing in opportunities. Shir defines an entrepreneur as a person having multiple skills. Taymons' model is as follows (Minniti, M., 2004). (figure 1)

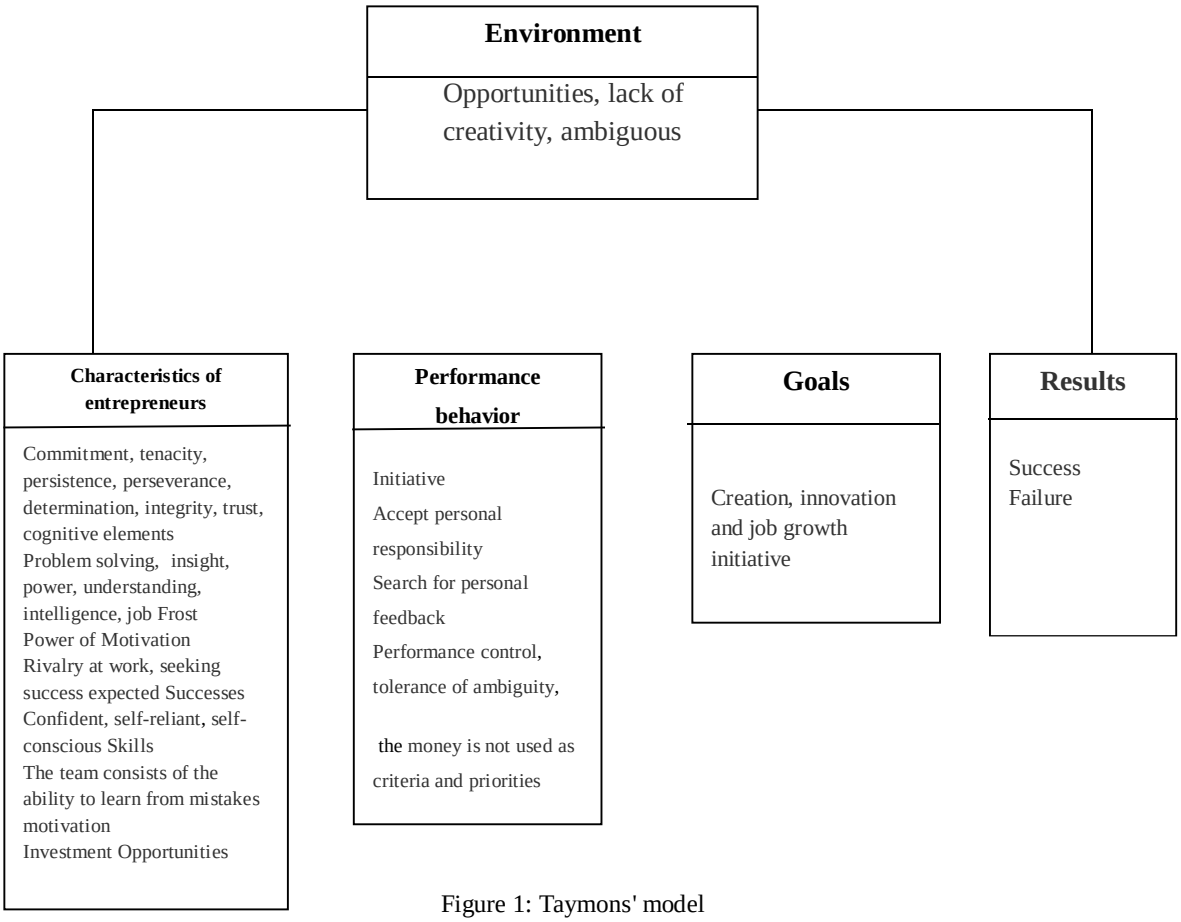

Figure 1: Taymons' model

Environment, opportunities, non creativity, vagueness, success, failure, aims, creation of a new innovation, working growth, behavior of innovation performance, acceptance of personal responsibility, searching for personal feedback, performance control, bearing vagueness, using money not as a criterion and priority for work Personal traits of the entrepreneurs: 1. Commitment, firmness, stability, assiduity, impetus, integration, trusting the cognitive elements, problem solving, purposivism, insight, ability of perception, sagacity, occupational intelligence, 2. Power of motivation, 3. Completely competitive at work, fulfillment, expectation of success, 4. Self confidence, self reliance, self awareness, skills, 5. Team formation, ability of motivation, learning from mistakes, 6. Investment in opportunities

Questions of the research

1. Which methods for establishing creativity do lead to the effectiveness of the entrepreneurship training courses at different educational levels of the learners?
2. What are the reasons of different groups for participating in entrepreneurship training courses?
3. Why are the creativity and problem solving methods used in entrepreneurship trainings?
4. How do creativity and problem solving methods create practical and applicable ideas at different educational levels of the learners of entrepreneurship trainings?

METHODOLOGY

The method of the present research is a descriptive-survey one and also it is an applied study. Library and field methods are used to collect data. Books, articles, theses and domestic and foreign magazines are used to collect data. Also, suitable questionnaires are designed as Likert's spectra. The population of the research includes three groups: people with general education, people with university education, and university professors. Since a wide range of people participate in entrepreneurship courses, it became clear through the studies conducted that people present in these three groups form the highest number of individuals interested in participating in these courses. So because of it and examining the subject better, it was decided to use the three groups as the population and select the sample from them. Since the size of the population is not known, the sample size is obtained as follows (Dellavar, A., 2009)

$$n = \left({}^{Z\frac{\alpha}{2}}\Big/_{d} \right)^2 * p(1-p)$$

Where n is the sample size, P is the ratio of the population to q=1-p, and d is the maximum error of the population ratio estimation. Since we don't know the value of p, we assume it 0.5, and hence, the maximum sample size is obtained. According to the values 1- α = 0.95 and d=0.05, the sample size becomes 317. (Table 1)

Table 1

Z	level of confidence $1-\alpha$	relative error d	Sample size n
1.96	0.95	0.05	**385**

Since the population of the research includes two groups with general and university educations, the random class method was used as follows: (Table 2)

Table 2

Total sum	University professor	University education	General education	Classes of the society
385	68	182	135	Sample size

In this research, t-test was used to examine the significance of the effect of any of the independent variables on the dependent variable.

In the following table, the results of t-test and those of ranking by Friedman test are presented for any variable:

1. Which methods for establishing creativity do lead to the effectiveness of the entrepreneurship training courses at different educational levels of the learners?(table 3)

Table 3

Result	Total p-value	Mean of the professor	University mean	General mean	Methods	Component
The difference is not significant	0.067	3.994	3.882	3.044	Accepting the thought by the manager (the responsible person)	Methods for establishing creativity
The difference is not significant	0.000	4.225	3.814	2.814	Using the thought	
The difference is not significant	0.000	2.311	3.886	3.302	Encouragement to individual working	
The difference is not significant	0.014	3.789	4.835	2.838	Encouragement to group working	
The difference is not significant	0.045	3.211	3.117	3.0125	Familiarity with work tasks	

As it is seen, there is no significant difference between the two groups only for the variable of accepting the thought by the manager about its effect on the dependant variable (the method for establishing creativity). For others, a significant difference is observed, because if P-value is lower than 5%, the difference is significant. (Table 4)

Table 4: Ranking the effectiveness of the variables

Rank of the method in groups			Methods
Professors	University education	General education	
2	2	2	Accepting the thought by the manager
4	4	1	Encouragement to individual working
3	1	4	Encouragement to group working
5	5	3	Familiarity with work tasks
1	3	5	Using the thought

As it is seen, in the group of people with general educations, the variable of encouragement to individual working has the highest effectiveness as a method for establishing creativity in entrepreneurship trainings in entrepreneurship courses, while in the group of people with university educations, the variable of encouragement to group working has the highest effectiveness as a method for establishing creativity in entrepreneurship trainings in entrepreneurship courses and finally, in the group of professors, using thoughts and ideas has the highest effectiveness as a method for establishing creativity in entrepreneurship trainings in entrepreneurship courses.

2. What are the reasons of different groups for participating in entrepreneurship training courses? (Table 5)

Table 5

Result	Total p-value	Mean of the professor	University education	General education	Methods	
The difference is not significant	0.000	2.897	3.057	4.632	Entering a new enterprise	Reasons for participating in entrepreneurship courses
The difference is not significant	0.000	3.988	4.225	3.389	Creating innovation in the current enterprise	
The difference is not significant	0.000	4.229	3.657	2.626	Creating a suitable idea	
The difference is not significant	0.000	3.015	3.368	4.148	Increasing the profitability of the enterprise	
The difference is not significant	0.000	3.367	4.037	3.002	Using information relevant to one's career	

Since the P-value is lower than 5%, there is a significant difference. (Table 6)

Table 6: Ranking the effectiveness of the variables

Rank of the method in groups			Methods
Professors	University education	General education	
2	5	1	Entering a new enterprise
3	2	4	Creating innovation in the current enterprise
1	4	5	Creating a suitable idea
5	1	3	Increasing the profitability of the enterprise
4	3	2	Using information relevant to one's career

As it is seen, in the group of people with general educations, entering a new enterprise has the highest effectiveness as a method for establishing creativity in entrepreneurship trainings in entrepreneurship courses, while in the group of people with university educations, the variable of increasing the profitability of the enterprise has the highest effectiveness as a method for establishing creativity in entrepreneurship trainings in entrepreneurship courses and finally, in the group of university professors, creating a suitable idea has the highest effectiveness in entrepreneurship trainings in entrepreneurship courses.

3. Why are the creativity and problem solving methods used in entrepreneurship trainings? (Table 7)

Table 7

Result	Total p-value	Mean of the professors	University mean	General mean	Methods	Component
The difference is not significant	0.000	4.367	4.026	3.012	The novelty of the thought	The reason of using creativity and problem solving methods
The difference is not significant	0.025	3.980	4.259	3.029	The appropriateness and the usefulness of the thought	
The difference is not significant	0.005	4.117	3.829	2.875	Examining all of the available data	
The difference is not significant	0.016	3.511	4.670	2.867	Matching the received data to the concepts	
The difference is not significant	0.026	3.791	4.102	3.831	The rapid increase of the competitors	
The difference is not significant	0.345	3.841	3.631	3.992	Combining the irrelevant thoughts to find the answer	
The difference is not significant	0.001	2.901	3.051	4.260	Mobilization of the resources	

As it is seen, there is no significant difference between the three groups only for the variable of combining the irrelevant thoughts to find the answer about its effect on the dependant variable. (Table 8)

Table 8: Ranking the effectiveness of the variables

Rank of the method in groups			Methods
Professors	University education	General education	
1	4	5	The novelty of the thought
3	2	4	The appropriateness and the usefulness of the thought
2	5	6	Examining all of the available data
6	1	7	Matching the received data to the concepts
5	3	3	The rapid increase of the competitors
4	6	2	Combining the irrelevant thoughts to find the answer
7	7	1	Mobilization of the resources

As it is seen, in the group of people with general educations, mobilization of the resources has the highest effectiveness as a method for establishing creativity in entrepreneurship trainings in entrepreneurship courses, while in the group of people with university educations, the variable of matching the received data to the concepts has the highest effectiveness as a method for establishing creativity in entrepreneurship trainings in entrepreneurship courses and finally, in the group of university professors, the novelty of the thought has the highest effectiveness in entrepreneurship trainings in entrepreneurship courses.

4. How do creativity and problem solving methods create practical and applicable ideas at different educational levels of the learners of entrepreneurship trainings? (Table 9)

Table 9

Result	Total p-value	Mean of the professors	University mean	General mean	Methods	Component
The difference is not significant	0.367	3.870	3.851	3.401	The existence of problem	Creativity methods create practical and applicable ideas
The difference is not significant	0.124	3.602	3.751	3.256	obtaining data related to the subject	
The difference is not significant	0.001	3.802	4.159	3.0129	Obtaining data related to the subject	
The difference is not significant	0.001	4.212	3.181	2.781	Data analysis- adaptability to the subject	
The difference is not significant	0.000	3.625	4.016	3.245	Creating opportunity	
The difference is not significant	0.002	3.256	3.687	4.125	Having technology	
The difference is not significant	0.000	2.868	3.547	4.592	The ability of overcoming the problems	

As it is seen, there is no significant difference between the three groups only for the variables of the existence of problem and obtaining data related to the subject about its effect on the dependant variable. (Table 10)

Table 10

Rank of the method in groups			Methods
Professors	University education	General education	
2	3	3	The existence of problem
3	4	4	obtaining data related to the subject
5	1	6	Obtaining data related to the subject
1	6	7	Data analysis- adaptability to the subject
4	2	5	Creating opportunity
7	5	2	Having technology
6	7	1	The ability of overcoming the problems

As it is seen, in the group of people with general educations, overcoming the problems has the highest effectiveness as a method for establishing creativity in entrepreneurship trainings in entrepreneurship courses, while in the group of people with university educations, the variable of data analysis has the highest effectiveness as a method for establishing creativity in entrepreneurship trainings in entrepreneurship courses and finally, in the group of university professors, the variable of adaptability to the subject has the highest effectiveness in entrepreneurship trainings in entrepreneurship courses. (Table 11)

Table 11: The correlation coefficient test and multivariate regression analysis in the group of people with general educations

	Encouragement to individual working	Mobilization of the resources	The ability of overcoming the problems	Entering a new enterprise
Correlation coefficient with a dependant variable	0.202	0.347	0.002	0.589
P-value	0.015	0.000	0.000	0.000

As it is seen, all of the independent variables have a direct linear relation with the response variable (i.e. increasing the independent variables, the value of the dependent variables decreases). Also, all of the relations are significant at the error level 5% and the independent variable, entering a new enterprise, has the highest effect on the dependent variable and the independent variable, encouragement to individual working, has the lowest effect on the dependent variable. (Table 12)

Table 12

Variables of the research		Descriptive measures		
		Sample size	Average	Standard deviation
Dependent variable		135	3.5614	0.4816
Independent variables	Encouragement to individual working	135	3.3022	1.1145
	Mobilization of the resources	135	4.2602	0.0597
	Ability of overcoming the problems	135	4.5926	0.0906
	Entering a new enterprise	135	4.6324	4.6324

Performing this method, the variables x_4 (entering a new enterprise), x_3 (the ability of overcoming the problems) and x_2 (mobilization of the resources) were respectively entered into the regression model, but since the independent variable x_1 (encouragement to individual working) does not have a significant effect on the dependent variable at the error level 5%, it was not entered into the regression model. The table of the variance analysis of the model including independent variables having significant effects on the dependent variable is as follows: (Table 13)

Table 13

Source of changes	Sum of squares	degree of freedom	Mean squares	F	P-value
Regression	21.707	3	7.236	81.303	0.000
Residuals	11.689	3	0.890		
Total	33.397	3			

As it is seen, according to the p-value, it can be said that the obtained F is strongly significant. It shows that at least one of the independent variables is effective in predicting the dependent variable. The following table shows the factors of the independent variables. It presents the non-standardized and standardized x coefficients. (Table 14)

Table 14

	Non-standardized coefficients		Standardized coefficients	t	P-vlue
	B	Std. Error	Beta		
Constant value	6.191	0.205	--	30.268	0.000
x_4 (entering a new enterprise)	0.367	0.036	0.565	10.193	0.000
x_3 (the ability of overcoming the problems)	0.399	0.037	0.543	10.874	0.000
x_2 (mobilization of the resources)	0.101	0.044	0.128	2.314	0.022

As it is observed, according to the significance column (P-value), all of the factors in the model are significant at the significance level 5%.

It must be noted that B factors are used to predict the changes, while beta factors are used to determine the level of the effect of independent variables on the dependent variable.

Therefore, the selected regression model is as follows:

$$y = 6.191 + 0.367x_4 + 0.399x_3 + 0.101x_2$$

In other words, the following equation:

Y= 6.191 + 0.367 * (Entering a new enterprise) + 0.399 * (the ability of overcoming the problems) + 0.101 * (mobilization of the resources)

Is a suitable multivariate linear regression equation for showing the relations between the independent and dependent variables.

The correlation coefficient test and multivariate regression analysis in the group of people with university educations

In the following table, the matrix of the correlation coefficients between independent and dependent variables is given: (Table 15)

Table 15

	Encouragement to group working	Matching the received data to the concepts	Data analysis	Increasing the profitability of the enterprise
Correlation coefficient with a dependent variable	0.628	0.584	0.383	0.516
P-value	0.000	0.000	0.000	0.000

As it is seen, all of the independent variables have a direct linear relation with the response variable and all of the relations are significant at the error level 5%. Also, according to these values, it can be said that the variable, encouragement to group working, has the highest correlation with the dependent variable and the variable, data analysis, has the lowest correlation with the dependent variable. In the following table, the descriptive measures of the independent and dependant variables are presented: (Table 16)

Table 16

Variables of the research		Descriptive measures		
		Sample size	Average	Standard deviation
Dependent variable		182	4.5483	0.3724
Independent variables	Encouragement to group working	182	4.8352	1.2941
	Matching the received data to the concepts	182	4.6704	0.0612
	Data analysis	182	4.1597	0.0695
	Increasing the profitability of the enterprise	182	4.407	0.0703

Now, using the multivariate linear regression, we suggest the best regression model for these variables. The table of the variance analysis of the model including the variables above is as follows: (Table 17)

Table 17

Source of changes	Sum of squares	degree of freedom	Mean squares	F	P-value
Regression	7.117	3	2.3723	8.152	0
Residuals	51.832	178	0.291		
Total	58.949	181			

As it is observed, according to the P-value, it can be said that the obtained F is strongly significant. It shows that at least one of the independent variables is effective in predicting the dependent variable. So, each of the independent variables must be tested using the t-test.

The following table shows the factors of the independent variables. It presents the non-standardized and standardized x coefficients. (Table 18)

Table 18

	Non-standardized coefficients		Standardized coefficients	T	P-value
	B	Std. Error	Beta		
Constant value	2.568	0.27		0.498	0
Data analysis	0.075	0.037	0.095	2.001	0.046
Matching the received data to the concepts	0.129	0.041	0.149	3.131	0.002
Encouragement to group working	0.173	0.04	0.206	4.344	0
Increasing the profitability of the enterprise	0.093	0.041	0.105	2.264	0.024

According to the significance column (P-value), all of the factors in the model are significant. Therefore, the selected regression model is as follows:

Y= 2.568 + 0.0750 * (Data and information analyses) +0.129 * (Data comparison) + 0.173 * (Encourage to teamwork) + 0.093 * (Increase profitability of business)

The correlation coefficient test and multivariate regression analysis in the group of university professors

In the following table, the matrix of the correlation coefficients between independent and dependent variables is given: (Table 19)

Table 19

	Using the thought	The novelty of the thought	Adaptability to the subject	Creating a suitable idea
Correlation coefficient with a dependent variable	0.58	0.622	0.482	0.597
P-value	0	0	0	0

As it is seen, all of the independent variables have a direct linear relation with the response variable and all of the relations are significant at the error level 5%. Also, according to these values, it can be said that the variable, the novelty of the thought, has the highest correlation with the dependent variable and the variable, adaptability to the subject, has the lowest correlation with the dependent variable.

In the following table, the descriptive measures of the independent and dependant variables are presented: (Table 20)

Table 20

Variables of the research		Descriptive measures		
		Sample size	Average	Standard deviation
Dependent variable		68	4.4695	0.3983
Independent variables	Using the thought	68	4.2253	0.0504
	The novelty of the thought	68	4.3676	0.7104
	Adaptability to the subject	68	4.2127	0.0577
	Creating a suitable idea	68	4.2296	0.0420

The table of the variance analysis of the model including the variables above is as follows: (Table 21)

Table 21

Source of changes	Sum of squares	degree of freedom	Mean squares	F	P-value
Regression	25.093	3	8.3643	40.702	0
Residuals	13.151	64	0.2055		
Total	38.244	67			

As it is observed, according to the P-value, it can be said that the obtained F is strongly significant. It shows that at least one of the independent variables is effective in predicting the dependent variable. So, each of the independent variables must be tested using the t-test.
The following table shows the factors of the independent variables. (Table 22)

Table 22

	Non-standardized coefficients		Standardized coefficients	T	P-vlue
	B	Std. Error	Beta		
Constant value	0.164	0.207		0.791	0.43
Using the thought	0.238	0.037	0.278	6.441	0
The novelty of the thought	0.307	0.039	0.34	7.828	0
Creating a suitable idea	0.297	0.041	0.314	7.299	0
Adaptability to the subject	0.195	0.041	0.2	4.808	0

It presents the non-standardized and standardized x coefficients.
According to the significance column (P-value), all of the factors in the model are significant, except a constant value.
Therefore, the selected regression model is as follows:

$$y = 0.238x_1 + 0.307x_2 + 0.297x_3 + 0.195x_4$$

In other words, the following equation:
Y = 0.238 * (Use of mind) + 0.307 * (New idea) + 0297 * (proper idea Creation) + 0.195 * (Adjustability to subject)

Conclusion

The results from statistical analysis of the data are as follows.

In the first question of the research asking the type of the methods for establishing creativity and the effectiveness of any of the entrepreneurship training courses at different educational levels of the learners, the results from the analysis show that learners with general educations believed that the method of encouragement to individual working in the courses was effective and encouragement to group working was a variable proposed by the learners with university educations as a process effective in establishing creativity and using ideas and thoughts was a variable proposed by university professors as a process effective in establishing creativity.

In the second question asking the reasons of different groups for participating in entrepreneurship training courses, the variable of entering a new enterprise or establishing an enterprise was the main reason of the group of people with general educations for participating in entrepreneurship courses. The group of people with university educations introduced the variable of familiarity with the way of increasing the profitability of the enterprise as the reason for participating in entrepreneurship courses and university professors introduced the variable of creating new and suitable ideas as the reason for participating in entrepreneurship courses.

In the third question of the research asking the reason of using creativity and problem solving methods in entrepreneurship trainings, the results from the analysis show that creativity and problem solving methods are used in entrepreneurship trainings to mobilize the resources according to the learners with general educations. Also matching the received data to the concepts was the response of the learners with university educations, and the university professors stated the novelty of the thought as answer of the question.

In the fourth question asking the way the creativity and problem solving methods create practical and applicable ideas at different educational levels of the learners of entrepreneurship trainings, the results of the analysis show that according to people with general educations, accepting the ability of overcoming the problems, these methods create practical and applicable ideas, while the answer of people with university educations was by data analysis and it was by adaptability according to university professors. According to the difference between the approaches and the attitudes of the three groups, it is natural that entrepreneurship trainings must be presented by separating the variables of the creativity methods, stating the reason of using the problem solving methods, the reason of participating in the course and the way of creating practical ideas to be effective for all groups of learners. As a result, the theoretical and practical needs of any of the groups are met by the training course and these courses can be effective. According to the results of the research conducted on the effectiveness of entrepreneurship courses at three educational different levels of the learners, it is suggested that before holding the courses, their nature is described to the learners with general educations to understand that participating in these courses does not guarantee their occupation or working in a new enterprise, but it enriches the current occupation or the way and the idea of establishing an enterprise. Now it is better to base the nature of the courses on the way of overcoming a problem and also on the proper methods for mobilizing the resources for this group to increase its effectiveness. For the second group, these courses must be held with the aim of making them able to analyze the data and increase the profitability of the enterprise, encourage them to work in groups and learning them to match the received data to the concepts to increase their effectiveness. Also for the third group, these courses must be held to meet their needs such as using new thoughts, creating new and suitable ideas and the appropriateness and the novelty of the concepts presented and adaptability to have the expected effectiveness. It is a long time that the word "entrepreneurship" is used in articles and speeches as a solution for development, but this word is not still realized in the fields of science, planning and practice. Maybe, the reason is that no university teaches entrepreneurship formally and academically, as creativity and innovation are not valued, so that a course is assigned for the students on them. So, the students graduated from universities or technical and professional centers can't be expected that they establish a constructive enterprise in the conditions that creativity and innovation are the key factors and the key to enter and survive in new competitive markets. If we want to have a successful economy, it seems that entrepreneurship must be noted more in the country. But unfortunately, no regular work is done for entrepreneurship, whether in policy making or in the research-educational field.

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