



## **SITUATION OF ENTREPRENEURIAL ATTITUDE IN IRANIAN PRIMARY SCHOOL: TECHNOLOGY AND WORK TEXTBOOK**

Ph.D. Seyed Ali Khaleghinezhad

Candidate of Curriculum Development, AllamehTabataba'i University, Tehran, Iran

Ph.D. Rezvan, Hakimzadeh

Candidate of Curriculum Development, Tehran university, Tehran, Iran

Ph.D. Akbar Hedayati<sup>1</sup>

Candidate of Curriculum Development, Allameh Tabataba'i University, Tehran, Iran

Ph.D. Morteza, Shabani

Candidate of Curriculum Development, Allameh Tabataba'i University, Tehran, Iran

### **ABSTRACT**

Entrepreneurial attitude is an incentive force for shaping entrepreneurial culture in educational systems and play a vital role in preliminary ages. Based on, present study is conducted to analyze the content of Technology and Work textbook of grade 6 in preliminary schools according to entrepreneurial attitudes. To measure entrepreneurial attitudes, conceptual model introduced by Jafari-Moghada and Fakharzadeh (2012) was used. Results indicate that 59% of Technology and Work textbook is devised by an entrepreneurial attitude. Likewise, among the aspects of entrepreneurial attitude, inclination to success and behavioral aspect has the highest frequency while other components and aspects enjoy trivial frequency.

**Keywords:** curriculum, content analysis, primary school, entrepreneurial Attitude

### **Introduction**

Today, manpower unemployment is seen as an important challenge for different societies and it has posed huge economic, social and mental costs on both manpower and society. Among the policies formulated in recent years in Iran to organize economic and employment situation is the effort to downsize the government to assign public sectors to private ones – in Iran, article 44 of the Constitutional Law emphasized on privatization of public companies. Another strategy in addition to privatization which can save improper economic situation is entrepreneurial culture. It is a necessary culture in all countries to help the resolution of unemployment and sustainable development in any (Nieman&Nieuwenhuizen, 2003). Entrepreneurial culture is a set of encouraging initiatives, philosophies, beliefs and social values which enable people to calculate the risk creatively and play an active role in shaping the future (Neill & De Coning, 1994:12).

Entrepreneurship is a term that has passed a different semantic path throughout the history. Entrepreneur is a French term used initially as the organizer of music and other recreations. Since 16<sup>th</sup> century, it was used for all individuals who contributed in military exploratory journeys. In 17<sup>th</sup> century, it was used to cover architects for constructional engineering activities such as constructing, strengthening and public works. Old Oxford dictionary has defined entrepreneur as a “manager or executor of a public music institute and someone who works on recreational activities especially music.” It was in 18<sup>th</sup> century that entrepreneur term found an economic aspect (Gangaiah&Viswanath, 2014). Irish economist, Richard

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1. Akbar hedayati, University of AllamehTabataba'i, Dehkadeh Olympic, Hemmat Highway (West), P.O. Box 14155-8473 Tehran, Iran. Email: hedayati.ut2008@gmail.com



Cantillon used it 1932 to show the people who acted in economic risky transactions (Minniti & Lévesque, 2008) the importance of entrepreneurship is broadly confirmed for economic growth in recent years. Entrepreneurship is mentioned as the main source of innovation, job creation and growth (Audretsch and Thurik, 2001; Van Stel and Thurik, 2002). Since 1980s, entrepreneurship was introduced as the axis of economic development (Hannafey, 2003: 101) since entrepreneurs are change agents who cause self – employment and income for others (Mohanty, 2007: 104); they play the role of an innovator and cultivate the seeds of development in the society (Nandan, 2007: 3) and help welfare, job creation and higher life quality (Matlay, 2005). Today, global nations have accepted that entrepreneurship is development engine since it plays an undeniable role in improving productivity and economic growth (Chen, Zhu, & Anquan, 2005) that is, entrepreneurship is synonym to personal, organizational and national success (Matlay, 2005).

Entrepreneurship is a field to which clear borders are not yet drawn and its conceptual framework is not accepted universally (Shane & Venkataraman, 2000; Ireland & Webb, 2007). Entrepreneurship is defined as improving individuals' capabilities to create and identify current investment opportunities and to mobilize resources to start success in economic activities; entrepreneurship is also defined as the ability to create new ideas, products and services for personal documentation toward social needs (Udu & Amadi, 2013), to create commercial operations in uncertainty conditions to achieve profit (Scarborough & Zimmerer, 2003: 3) and to look for investment opportunities for identified opportunities (Paul-Dana, 2001). Based on the framework of core competencies, entrepreneurship competency is referred to an individual's capability to achieve and convert ideas to practice which include creativity, innovation, risk taking and project design and management to achieve the aims (Bourgeois, 2011). Morrison (2000) believes that the profile of an entrepreneur includes such traits as good intelligence and analysis power; effective risk management and networked marketing; a set of economic, social and business ethics, rendering instinctive economy; and lifetime learning.

An important question: can entrepreneurship be learnt or it is natural? In paramount studies, the ability to learn and transfer entrepreneurial attitude is proved. Studies (Kyrö, 2005; Venesaar et al, 2005; Carrier, 2005; Mets and Andrijevskaja, 2005; Fakharzadeh, 2012) indicate that education and training play a vital role in transferring entrepreneurship culture as one of the most important needs of today societies. Additionally, findings indicate that education and training lead into increases in people's rational abilities and their special skills (Burger, O'Neill & Mahadea, 2005). Entrepreneurship training is not only effective in shaping individuals' entrepreneurship attitude but also it paves the ground for knowledge and skills which play a vital role in developing entrepreneurship culture (Aja-okorie & Adali, 2013). In devising entrepreneurship framework, training and education are seen as the determinants of entrepreneurial measures in any country (Verheul, Wennekers, Audretsch & Thurik, 2002) and schools should use entrepreneurship world to improve the morale of planning and executing training programs (Ayub & Othman, 2013). An important issue on entrepreneurship is its training and education in early years of life since it is determined that major part of human personality is shaped in his/her first six years. Then, human personality is fully shaped when he/she is young and it will proceed the same overtime otherwise he/she intentionally decides and recognizes that some of his/her habits are not good and then to alternate them with good ones (Soroush, 2003). Either in preparing the students for next stages or in terms of the influences of teachings and experiences, preliminary school plays a vital role. It has caused that two third of EU member accept entrepreneurship training in preliminary school and interdisciplinary approach is dominated in their curriculum in which entrepreneurship is a part. In these countries, the aims of entrepreneurship are expressed as horizontal or interdisciplinary. They shape a part of values and competencies which should be developed through curriculum titles and activities. In those countries where entrepreneurship is integrated in different items, they include a part of compulsory



curriculum. In many countries, entrepreneurship is a part of social science which may include history, geography, government, political or citizenship training as well as other related courses such as social studies. In the Netherlands, although entrepreneurship training is not seen as a part of curriculum, schools can ask for budgets to develop entrepreneurship curriculum. In a few countries, entrepreneurship training as a part of curriculum is except than social science. For instance, in Bulgaria and Latonya, entrepreneurship is integrated in 'home economics and technology. In Czech Republic, it is a part of "ethics" optional course while in Lithonia; it is a part of both social and natural sciences. In Poland, it is integrated in social science and mathematics (European Commission, 2012). Public training system in preliminary schools shapes and fosters values, skills, knowledge and attitudes in this growth step (Fakharzadeh, 2012). Also, some believe that entrepreneurship training programs should be inserted in all steps of human training courses (Udu& Amadi,2013).entrepreneurship training should be changed to an overtime learning process started from preliminary and continued in all next levels since entrepreneurial skills and attitudes will bring huge advantages for society and individuals (Aja-okorie, & Adali,2013).

Exploring entrepreneurship emergence in Iran indicates that not only entrepreneurship training courses have opened their place in different academic disciplines, but also they are respected in different levels from preliminary to secondary schools. For the first time, this concept was raised by inserting entrepreneurship lesson in new education system via labor and knowledge field (Arefi, Fathi-Vahargah, & Nasaj, 2011). Besides, studies by Fakharzadeh (2012) on "reading and writing" books in preliminary schools indicate that by considering questions, texts and images, 48% of "reading" book and 54.9% of content analysis in "writing" books have addressed to entrepreneurship attitude. In recent years, along with other nations, Iranian pedagogy system has experienced content and structural changes in curriculums by focusing on preliminary, middle and secondary schools. In all aspects especially content and qualitative ones, such experience demands a thorough analysis. It is an orientation increasingly expressed by international organizations especially in recent three decades. Now, a gap is revealed between the titles usually instructed in schools and knowledge and skills that people and nations need to compete in globalized world (World Bank, 2005:71). In this line, the aim of present research is to analyse Technology and Work curriculum in grade 6 of preliminary school. To achieve this aims, three below questions are explored. Research content analysis is conducted to answer these questions:

To what extent has Technology and Work curriculum in grade 6 of preliminary school addressed to develop entrepreneurial attitude?

Is there any significant difference between total frequencies of entrepreneurial attitude components (inclination to success, perceived personal control, creativity and innovation, perceived self- efficacy and identifying/exploiting opportunities)?

Is there a significant difference between total frequencies of entrepreneurial attitude aspects (cognitive, emotional and behavioural)?

## **Method**

This is a descriptive survey conducted by quantitative content analysis. Content analysis is conducted by two qualitative and quantitative approaches. Qualitative approach is based on author's personal description while quantitative one is used to extract data (Gall, Gall & Borg, 2007). Research population consists of all textbooks in Grade 6 of preliminary schools in educational year 2013. Since the aim of publishing Technology and Work book is to get students familiar with business world, skilfulness to meet



personal and familial daily needs, employment in future and familiarity with different jobs, it was selected as statistical sample.

Quantitative content analysis of Technology and Work analysis is conducted to measure entrepreneurship attitude by Jafari-Moghadam&Fakharzadeh conceptual model (Jafari-Moghadam&Fakharzadeh, 2012). This model consists of 5 components that each one has three cognitive (recognizing and believing attitude, information, awareness, knowledge and facts), emotional (negative or positive feeling during thinking or imaging) and behavioural (readiness and inclination to a practical action on the attitude which creates performance and behavioural insight) aspects (table 1). The content analysis of this model's checklist was confirmed by several educational and managerial connoisseurs. In a study by Jafari-Moghadam&Fakharzadeh (2012), the validity of the checklist was reported 0.87 via Paul Scott ratio. To determine the validity of formulated checklist in present paper, 10% of Technology and Work books were randomly selected. Selected samples had 10 pages. Selected samples were accompanied by operational definition so that all were fully familiar with devised components and coding recipe in creativity checklist. For recoding, 145 analysed units were used by which 5 different and 140 similar units were determined by two coders; in other words, agreed cases were coded in two steps. Upon analysing agreed units and expected unit, validity ratio was achieved 0.63.

Table 1.components and indicators of entrepreneurial attitude by Jafari-Moghadam&Fakharzadeh model (2012)

ASPECTS	INDICATOR
Inclination to success	Analyzing weaknesses, planning for success in future; respecting the results for assessing success; spending the time for better performance; doing all efforts to be successful in work; effective efforts to use resources; performing the jobs optimistically; doing the best works; using the time rightly and rationally and not wating the time; using the opportunities in excess of personal convenience.
Percieved personal control	Self – creation of opportunities; responsibility; active role playing in works; the ability to work with others; the ability to control over environment and conditions; inclination to be boss; inclination to independence; the ability to do the jobs without impacted by environmental factors; assigning the successes to oneself
Creativity and innovation	Using old concepts for new applications; processing different ideas; curiosity for problem solution; providing new solutions for roblems; performing the works through unusual ways; the ability to control new situations; inclination to work with creative and innovative people; lack of inclination to be controlled and limited in frameworks; efforts and inclination to create changes; no inclination to steady works; no inclination to follow predetermined procedures
Perceived self – efficacy	Belief in oneself's works and capabilities; trust to results of works; inclination to work with self – esteem persons; the feeling of spuriority to colleagues; ego liking, solving personal problems
Recognizing and exploiting opportunities	Intelligence; recognizing by exploring a balance between needs; feeling or conceiving the needs; value generation; profitability



**Results**

Content analysis was conducted by focusing on research questions and by using descriptive and deductive statistics. To answer the first question of the research “To what extent has Technology and Work curriculum in grade 6 of preliminary school addressed to develop entrepreneurial attitude?”, frequency statistics and frequency percentage are used (table 2).

Table 2. descriptive statistics of entrepreneurial attitude components

Component	%	Frequency	image	Question	Text
Inclination to success	85.24%	543	90	19	434
Perceived personal control	03.92%	25	2	3	20
Creativity and innovation	08.47%	54	12	4	38
Perceived self – efficacy	01.41%	9	3	1	5
Recognizing and exploiting opportunities	00.94%	6	1	1	4
Total entrepreneurial attitude components	100%	637	108	28	501

As seen in table 2, among entrepreneurial attitude components, inclination to success (85.24%) has the highest rank followed by creativity and innovation (08.47%), perceived personal control (03.92%), and perceived self – efficacy (01.41%) and recognizing and exploiting opportunities (00.94%).

To answer the second question “Is there any significant difference between total frequencies of entrepreneurial attitude components (inclination to success, perceived personal control, creativity and innovation, perceived self – efficacy and recognizing/exploiting opportunities)?” Chi2 statistical test is used (table 3).

Table 3. The results of Chi2 test on the difference between entrepreneurial attitude components

Component	Recognizing and exploiting opportunities	Perceived self – efficacy	Creativity and innovation	Perceived personal control	Inclination to success
observed frequency	6	9	54	24	543
Expected frequency	127.40	127.40	127.40	127.40	127.40
df = 0.05 1822.12=X <sup>2</sup> (** achieved Chi <sup>2</sup> )					

As observed in table 3, there is a significant difference between inclination to success, perceived personal control, creativity and innovation, perceived self – efficacy and identifying/exploiting opportunities (\*\*X<sup>2</sup> = 1822.12; df = 0.05). It means that the frequency of “inclination to success” is too





higher than expected level in Technology and Work book of Grade 6 and other components have trivial status in this curriculum content.

The significant analysis on the difference between entrepreneurial attitude aspects (cognitive, emotional, and behavioural) was conducted in the format of analysis unit frequency and frequency percentage (table 4) in order to answer question 3: “Is there a significant difference between total frequencies of entrepreneurial attitude aspects (cognitive, emotional and behavioural)?” then, difference significance was analysed by Chi2 test (table 5).

Table 4. Descriptive statistics of entrepreneurial attitude aspects

Aspects	total		Behavioral		Emotional		Cognitive	
	%	Frequency	%	Frequency	%	Frequency	%	Frequency
Text	76.89%	649	60.30%	509	01.48%	12	15.16%	128
Question	04.62%	39	03.79%	32	0.00%	0	00.82%	7
Image	18.48%	156	12.79%	108	0.00%	0	15.16%	48
Total	100%	844	76.89%	649	01.48%	12	21.68%	183

As seen in table 4, entrepreneurial attitude behavioural aspect (76.89%) has the highest frequency followed by cognitive (21.68%) and emotional (01.48%) components. It indicates the domination of attitude and practical initiative on entrepreneurial attitude in Technology and Work book of Grade 6. Additionally, the results from Chi2 test (table 5) confirm a significant difference between entrepreneurial attitude aspects in this book (\*\*X<sup>2</sup> = 772.70; df = 0.05).

Table 5. The results of Chi2 test differences between entrepreneurial attitude aspects

Component	Behavioural	Emotional	Cognitive
observed frequency	649	12	183
Expected frequency	281.33	281.33	281.33
Achieved Chi <sup>2</sup> : (**X <sup>2</sup> = 772.70; df = 0.05)			

### Conclusion

Present study is conducted to investigate the status of entrepreneurial attitude in Technology and Work book of Grade 6. The findings from content analysis indicate that 59% of the book devotes to entrepreneurial attitude while other entrepreneurial components and aspects are not manifested in this book in a balanced manner so that inclination to success and entrepreneurial attitude behavioural aspect constitute high percentages of its content. Can devising the content of this book in this manner be fruitful in realizing the aim of its designing – getting students familiar with business word, needed skills to remove persona and familial needs, occupation in future and familiarity with different jobs – and adapting with constant technological changes in the field of grooming manpower? The authors believe



that it is necessary to address all educational aspects including rational, emotional, behavioural and communicational in this book and one should always remember that it is the splendour of thoughts and selecting tight insights that acts as the factor of change and transformation in current and future labour market in the world. Research findings are consistent with the results of studies by Jafari-Moghadam & Fakharzadeh (2012) who reported trivial attention to self – esteem, perceived personal control and recognizing/exploiting opportunities in “reading and writing” books in Grades 1 – 5 in preliminary schools, and findings by Sobhani-nejad & Homayi (2006) who pointed out improper status of labour culture in middle – level curricula.

Overall, analysing the findings has shown the important of deep and multilateral analysis in formulating proper content in different ways such as text, question and image in Technology and Work book. Hence, authors believe that selecting each content shape should be consistent with the aims of devising the book; it is necessary that they can be dynamic and facilitate self – esteem, creativity and recognizing/exploiting opportunities. Besides, an improvement strategy is to revise selected content. One should note that grooming healthy humans in different aspects would not only control social and individual harms, but also it can be seen as a driving force for economic, social, cultural and ethical development of any society. In this line, entrepreneurial attitude can play a vital role. This is an attitude considered by many countries (i.e. EU) as a part of their key skills to be trained in different levels. Present study has only explored entrepreneurial attitude in Technology and Work book of Grade 6. It is recommended to study the content of other curricula in preliminary school as well as the relationship between Technology and Work curriculum of Grade 6 and entrepreneurial content in higher grades. Furthermore, one should note that devising appropriate content is only one tool to train desired entrepreneurial attitude and there are other components such as equipment and facilities, the quality of instructors’ teaching, proper environment of school and other tools that play a vital role in penetration of such attitude in the minds and practices of learners.

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