

# Teacher Perceptions on School Administrators' Entrepreneurship Skills

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## Abstract

The purpose of this study is to determine school administrators' entrepreneurship skills according to teacher opinions. The general screening model was used in the study. 227 teachers working in the province of Elazığ constituted the sample of the study. The data were collected through the "Entrepreneurship Scale". According to the study findings, teachers stated the entrepreneurship skills of school administrators; at "I Agree" level for "Need for Achievement", "Self-Confidence" and "Internal Locus of Control" dimensions, at "I am Uncertain" level for the "Tolerance of Ambiguity", "Innovativeness" and "Risk-Taking Propensity" dimensions. With regards to the entrepreneurship skills of school administrators, no differences among the sub-dimensions were detected concerning the type of duty and type of school variables. While there were significant differences among all the sub-dimensions except for "Tolerance of Ambiguity" for the professional duration in the school variable, no differences were detected for the gender, age and educational status variable.

**Keywords:** Entrepreneurship, school manager, entrepreneurial skills.

## 1. Introduction

Because it leads to individual and social prosperity, entrepreneurship has gained the interest of many researchers. While there are many definitions of entrepreneurship and entrepreneur in the literature, the two concepts were introduced by Richard Cantillon in 1755 and were widely recognized. In this definition, Cantillon referred to the entrepreneur as a person who undertakes every risk after organizing a mission so as to gain profit and related the entrepreneur with the risk factor (Korkmaz, 2012:210). American economist Frank H. Knight (1921) examined the terms uncertainty and risk separately and defined the entrepreneur as; the person who is the decision maker of the product process concerning producing what, when and how during an uncertain case and who undertakes the responsibility of the process to gain profit (Nar.: Döm, 2012: 2). In colloquial language enterprise is referred to as "taking action, attempting, starting a duty", the person who attempts to this is referred to as the "entrepreneur" (Aytaç and İlhan, 2007:107).

When studies on entrepreneurship are considered, it is evident that the factors determining entrepreneurship are discussed as individual, environmental and company/institution approaches in the literature. Koh (1996:13) considered the individual approach as the demographic and psychological characteristics of an individual. Demographic characteristics refer to the age, gender, educational status, marital status, having an entrepreneur in the family and the income level of the individual. One other factor of the individual approach which determines the entrepreneurship characteristics of an individual is psychological factors. These factors are listed as; the need for achievement, internal locus of control, risk-taking propensity, tolerance of ambiguity, self-confidence and innovativeness (Nar.: Korkmaz, 2012:212; Bozkurt, 2011:12). Explanations on these factors are given below.

*Need for Achievement:* The need for achievement theory was developed by McClelland (1961) and was recognized as a crucial psychological factor affecting entrepreneurship behaviors. The need for achievement impels people to entrepreneurship and to undertake risks. In addition, it positively affects entrepreneurship by contributing to problem resolution skills and determining goals (Hisrich and Peters, 1998: 70). The desire to succeed is evident in individuals with an enterprise spirit. Such individuals like creating different ideas rather than ordinary things (Bozkurt, 2011: 12).

*Tolerance of Ambiguity:* According to Teoh and Foo (1997:72), an ambiguous case is a state which an individual fails to fully clarify and classify due to an insufficient amount of data. Tolerance of ambiguity refers to the individual's skill to display a positive attitude when encountering an ambiguous event (Nar.: Erdem, 2001:44; Nar.: İplikçioğlu and Taşer, 2009:16). Schere (1982) emphasized that tolerance of ambiguity is a primary characteristic of entrepreneurs and that these individuals showed tolerance against ambiguity due to their need of achievement and carried out their institutional operations (Nar.: Korkmaz, 2012:213). Individuals who tolerate against ambiguity are people who like perfectness, taking decisions in ambiguous situations, difficulties and being leaders (Bozkurt, 2011: 14).

*Self-Confidence:* The prerequisite for success according to an entrepreneur is self-confidence and this confidence increases parallel with the interest and expertise of the entrepreneur. Entrepreneur individuals should have self-confidence so as to sustain the operations of their institutions (Korkmaz, 2012: 213). The road to success is through believing. In order to succeed, an entrepreneur should respect himself and believe that he is competent in his work and will succeed. Those who have self-confidence are people who are meticulous in following their

work and believe that they get affected by the circumstances and outcomes of their work (Bozkurt, 2011:14).

*Innovativeness:* According to Davis et al. (1991), innovation refers to offering unique, creative and original solutions for current problems and needs (Nar.: Fiş and Wasti, 2009:131). Because innovativeness and risk taking characteristics are present in the definition of entrepreneurship, the most prominent trait which has been agreed upon of an entrepreneur is innovativeness (Marangoz, 2008:14; Bozkurt, 2011: 15). As Sundbo (1998:22) expresses; Schumpeter (1934) defines an innovative person as an entrepreneur. Thus, the most prominent trait of an entrepreneur should be innovativeness. Entrepreneurial individuals start a new duty with a new product, new product processes and a new organizational structure through their innovative trait (Nar.: Korkmaz, 2012: 213).

*Risk-Taking Propensity:* The risk-taking propensity is referred to as the tendency to take a chance in cases of uncertainty (Bozkurt, 2011:13). Individuals with an entrepreneurship spirit have higher level of risk-taking propensity than other people. Risk is recognized as a prerequisite for definitions on entrepreneurs. Entrepreneurs should turn cases of risk into opportunities and take advantage from them (Macko and Tysza, 2000: 470).

*Internal Locus of Control:* The locus of control theory, which was introduced by Rotter in 1954, was discussed as internal locus of control and external locus of control. According to the theory, while individuals with an internal locus of control claim that they can affect the outcomes of events through their skills, talents and efforts, individuals with external locus of control claim that external factors such as luck and chance determine the outcomes of events and that this is independent from them (Nar.: Korkmaz, 2012:212; Nar.:Erdurur, 2012:44).

In our country, the attention given to entrepreneurship has increased both in government and also in private institutions. The collaboration approaches among various institutions has put forward the importance of this concept. With the “Entrepreneurship” protocol signed between YÖK and KOSGEB in 2011, it was accepted that entrepreneurship will be a compulsory or elective course in university curriculums. The same protocol states that entrepreneurship training programs will be offered to students under the University-KOSGEB cooperation (KOSGEB, 2016). Similarly, with regards to the “Developing political means for triggering innovativeness and entrepreneurship in universities” decision taken during the 23. meeting of the High Commission for Science and Technology, the “Innovative and Entrepreneurial University Index” was prepared for the first time in Turkey in 2012 by TÜBİTAK (İÜTTF, 2016). With this respect, higher education institutions compete with each other to keep their entrepreneurship and innovativeness indices high and remain at top lines. Thus, they aim at increasing the entrepreneurship spirit of students before they enter their professional career and to reveal their potentials. Educational institutions, who aim at increasing the entrepreneurship skills of students and turning their organizations into a more competent and competitive environment, are expected to be administered by people with entrepreneurial skills.

According to Eyüpoğlu (2007:11), when an entrepreneur becomes an administrator, he will soon find himself in a turnout. He will find it necessary to act as a good entrepreneur along with his administrator role. When this person is a school administrator then the task becomes even more difficult. The reason for this is because there are no enterprises that a school administrator can gain profit from. As school administrators, they should strive to turn their schools into a more functional setting without stepping out of the legal authority limits and should reveal their entrepreneurial characteristics (Nar.: Çelik, 2013: 57). However, Başar (2001:335) states that it is difficult to claim that the facilities of schools are used appropriately and effectively. The technological devices imprisoned in administrator offices, unread books in locked shelves, schools alienated from their environment through walls and fences, closing bookshelves, laboratories and workshops to students during their free time are examples of circumstances which lead to negative assumptions concerning the effectiveness and functioning of the school according to its aims. This has led to questioning the roles that a school administrator should undertake (Nar.: Bayrak and Terzi, 2004:5).

The expectation to use the schools’ facilities appropriately and to make a change by using them effectively has led to a change in the roles of school administrators. School administrators are expected to carry out their entrepreneurship role, which is also a functional behavior style, along with their leadership roles which are mostly at the theoretical dimension and are identified in general management sciences. School administrators are obliged to display their entrepreneurship roles to promote the school to adapt to its environment and initiate the transformation (Bayrak and Terzi, 2004:2).

There have been many researchers in the literature to determine the entrepreneurship propensities of university students. The purpose of these studies, which were oriented towards the students studying in the faculty of management, was to determine the education these students receive and the level of their entrepreneurship skills.

According to the study conducted by Thandi and Sharma (2003), which aimed at determining the entrepreneurship propensities of MBA students, the entrepreneurship propensities of these students were high. Wang and Wong (2004) conducted a study on university students to determine the entrepreneurship interests of university students in Singapore. It was observed that while factors such as gender, family’s entrepreneurship experiences and educational status affected university students’ entrepreneurship propensities, family’s economic status, ethnicity and citizenship perception didn’t affect them. In addition, while the entrepreneurship

propensities of students were high, it was observed that lack of enterprise knowledge and the risk perception concerning entrepreneurship were significantly dissuasive.

İplikçiöğlü and Taşer (2009) conducted a study on students studying in year 1. and year 4. in Bilecik University and Dumlupınar University Department of Business and examined the effects of the given education on the students' entrepreneurship feelings. According to the study results, the four-year bachelor's degree education improved their entrepreneurship feelings. In a study conducted by Karabulut (2009) on students receiving bachelor's degree education in a foundation university in Istanbul the effects of the level of creativity, tolerance of stress and enterprise motivation on entrepreneurship propensity were examined. According to the study results, although the majority of the students received entrepreneurship education they didn't want to be an entrepreneur by working in a newly established company or by establishing their own company.

According to a study conducted by Yılmaz and Sünbül (2009) on students studying in various departments of Selçuk University, there are no significant differences in the students' entrepreneurship levels with regards to the gender variable. Doğaner and Altunoğlu (2010) examined the factors that affect enterprise propensity in the study they conducted on students studying in Adnan Menderes University Department of Business. Male students were observed to have higher entrepreneurship propensities than female students. No significant relationships were detected between educational status and entrepreneurship tendency. A positive relationship between entrepreneurship propensity and creativity and the desire to succeed with regards to the personality traits variable.

Kaya et al. (2010) aimed at determining the entrepreneurship propensities of students in the study they conducted on students studying in Atatürk University. They emphasized that students have a propensity towards entrepreneurship. Keat et al. (2011) observed that there is a significant relationship between the entrepreneurship propensities of university students and the entrepreneurship education they receive. According to a study conducted by Raposo and Paço (2011), there is a clear interaction between education and entrepreneurship and it was stated that support given by the received education on the entrepreneurship characteristics leads to positive outcomes.

Bilge and Bal (2012) conducted a study to determine the propensities and competences of bachelor's degree and associate degree students studying in Celal Bayar University. Students' entrepreneurship skills were observed to be at low levels. No significant differences among the sub-dimensions of entrepreneurship were detected with regards to the gender variable. Korkmaz (2012) conducted a study on students studying in Bülent Ecevit University, Department of Business and examined the psychological, demographic and family factors that affect entrepreneurship. The study indicated that there are significant relationships between the psychological, demographic and family factors that are effective in students considering themselves as entrepreneur individuals and their desires to establish an enterprise in the future.

Along with these studies, there are only a few studies on the entrepreneurship traits of teachers and school administrators (Bayrak and Terzi, 2004; Polat and Aktop, 2010; Çelik, 2013). Polat and Aktop (2010) examined the effects of emotional intelligence and organizational support perceptions of secondary school teachers on entrepreneurship behaviors and observed that emotional intelligence and organizational support perceptions of teachers positively affect their entrepreneurship behaviors. Bayrak and Terzi (2004) conducted a study on the reflections of school administrators' entrepreneurship traits on the schools and discussed the characteristics of entrepreneur school administrators and the role of these characteristics in carrying out and improving the functioning of the schools. They state that regulations should be made for school administrators to display their entrepreneur characteristics and that the bureaucratic structure which hinders entrepreneur individuals should be abolished. In the post-graduate thesis, Çelik (2013) examined the relationship between school administrators' transformational leadership skills and enterprise skills with regards to teacher perceptions. According to the study results, teachers perceive school administrators as transformational leaders and entrepreneur leaders and there is a positive and moderate level relationship between transformational leadership and entrepreneurship. However, there were no studies which were oriented at identifying only the entrepreneurship skills of administrators.

The purpose of this study is to reveal teacher perceptions concerning the entrepreneurship skills of their school administrators. With this respect, answers for the following questions were sought:

1. Based on teacher perceptions, how frequent do school administrators display their entrepreneurship skills?
2. Based on teacher perceptions, do school administrators' entrepreneurship skills significantly differ according to the gender, age, type of school, educational status and professional duration in the school of teachers?

## 2. Method

### 2.1 Model of the study

The study is a descriptive study in which the general screening model was conducted. Karasar (2008:77) defined the screening model as, "the research approach which aims at describing a past or present event with its current

state” stated that event, individual or object that is in question in this model is identified exactly how it is within its own conditions.

### 2.2 Population and Sample

The stratified sampling method, which is one of the probability-based sampling methods, was used in determining the study group. Stratified sampling method is used when there are sub-stratums or groups of sub-units in the population. The important point here is to examine the population through the sub-stratums in the population (Yıldırım and Şimşek, 2011:105). The study sample consisted of 34 school administrators working in the province of Elazığ and receiving non-thesis master’s degree in Fırat University, Institute of Educational Sciences, Department of Educational Management Inspection Planning and Economy during the 2014-2015 academic period. The study sample consisted of 227 teachers working in the schools of the 34 school administrators.

The frequency values of the school type, gender, age, educational status and professional duration in the school of teachers who stated their opinions are displayed on Table 1.

Table 1. Frequency Table of Teachers Related to Various Variables

Age		21-25	26-30	31-35	36-40	41-45	46-50	51 +	Total
	N	26	66	73	40	17	2	3	227
F	11.4	29.1	32.2	17.6	7.5	0.9	1.3	100	
Professional Duration (Years)		1-5	6-10	11-15	16-20	21-25 year	26 +		
	N	83	58	51	21	8	6		227
F	36.6	25.6	22.5	9.2	3.5	2.6		100	
Type of School *		a	b	c	d				
	N	68	75	45	39				227
F	30	33	19.8	17.2				100	
Type of Task		Primary	Branch	Vocation					
	N	58	153	16					227
F	25.6	67.4	7					100	
Education Status		Graduate	Master	Doctorate					
	N	186	38	3					227
F	81.9	16.8	1.3					100	
Gender		Female	Male						
	N	104	123						227
F	45.8	54.2						100	

\* Type of School: Primary School (a), Secondary School (b), High School (c), Vocational High School (d)

### 2.3 Data Collection Instrument

The quantitative data collection technique was used in the study. The data collection instrument of this study was the “Entrepreneurship Scale” developed by Ağca (2004) and adapted to schools administrators by Çelik (2013). The data collection instrument consists of two sections. In the first section, personal information (gender, age, type of school they work in, duration of work, educational status etc.) were asked about the teachers. In the second section, there was a total of 27 items which evaluated teacher perceptions concerning the entrepreneurship skills of the school administrators. The scale consisted of six entrepreneurship sub-dimensions which were; “need for achievement”, “tolerance of ambiguity”, “self-confidence”, “innovativeness”, “risk-taking propensity” and “internal locus of control” dimensions. Each item was evaluated through a five point Likert type scale degreeed as “(5) I Totally Agree” and “(1) I Totally Disagree”. Because nine items in scale were reverse items, answers to these questions were evaluated reversely. The reliability of the entrepreneurship scale for the study conducted by Çelik (2013) was  $\alpha=0.61$ . The Cronbach’s Alpha value for this scale was observed to be 0.89. The Cronbach’s Alpha ( $\alpha$ ) values related to the sub-dimensions of the entrepreneurship scale are given on Table 2. These data indicate that the entrepreneurship scale is reliable for this study.

Table 2. Comparative Cronbach’s Alpha Values of the Entrepreneurship Scale Sub-Dimensions

Dimensions	$\alpha$ (Çelik, 2013)	$\alpha$ (This Study)
Need for Achievement	.55	.83
Tolerance of Ambiguity	.82	.88
Self-Confidence	.58	.84
Innovativeness	.53	.83
Risk-Taking Propensity	.62	.87
Internal Locus of Control	.58	.85

The reliability values related to the “Entrepreneurship Scale” and the sub-dimensions were observed to

be higher than the reliability values of the study conducted by Çelik (2013).

#### 2.4 Data Analysis

The quantitative data were analyzed through the descriptive analysis method. Frequency, percentage, arithmetic mean, t-test and one-way ANOVA analysis was used in the descriptive analysis. The LSD test, one of the post-hoc tests, was conducted in order to determine the source of the difference when there were significant differences. The significance level was observed to be 0.05.

Acceptance level of the items with arithmetic means between 1.00-1.80 was “I Totally Disagree”, between 1.81-2.60 was “I Disagree”, between 2.61-3.40 was “I am Uncertain”, between 3.41-4.20 was “I Agree” and between 4.21-5.00 was “I Totally Agree” level.

### 3. Findings And Comment

With regards to the first sub-goal of the study, the arithmetic mean and standard deviation results concerning the sub-dimensions of the entrepreneurship skills of school administrators according to teacher opinions are given on Table 3.

Table 3. Average Values of the Sub-Dimensions of the Entrepreneur Scale

Dimensions	N	$\bar{X}$	S
Need for Achievement	227	3.45	.771
Tolerance of Ambiguity	227	3.31	.472
Self-Confidence	227	3.50	.759
Innovativeness	227	3.39	.736
Risk-Taking Propensity	227	2.95	.659
Internal Locus of Control	227	3.41	.634

When the sub-dimensions concerning school administrators’ entrepreneurship skills are considered, it is evident that teacher perceptions are at; “I Agree” level for the “Need for Achievement” ( $\bar{X} = 3.45$ ), “Self-Confidence” ( $\bar{X} = 3.50$ ) and “Internal Locus of Control” ( $\bar{X} = 3.41$ ) dimensions and at “I am Uncertain” level for the “Tolerance of Ambiguity” ( $\bar{X} = 3.31$ ), “Innovativeness” ( $\bar{X} = 3.31$ ) and “Risk-Taking Propensity” ( $\bar{X} = 2.95$ ) dimensions.

Results of the independent samples t-test, conducted to determine whether or not there is a significant difference among teacher opinions stated for the sub-dimensions on the entrepreneurship skills of school administrators concerning the gender variable, are given on Table 4.

Table 4. T-Test Results of the Teachers Concerning the Sub-Dimensions With Regards to the Gender Variable

Dimensions	Gender	N	$\bar{X}$	S	t	sd	p
Need for Achievement	Female	104	3.38	0.82	-1.274	225	.204
	Male	123	3.51	0.73			
Tolerance of Ambiguity	Female	104	3.28	0.50	-.778	225	.437
	Male	123	3.33	0.45			
Self-Confidence	Female	104	3.56	0.81	1.164	225	.246
	Male	123	3.44	0.71			
Innovativeness	Female	104	3.39	0.74	-.154	225	.878
	Male	123	3.40	0.74			
Risk-Taking Propensity	Female	104	2.95	0.64	.100	225	.920
	Male	123	2.94	0.68			
Internal Locus of Control	Female	104	3.41	0.69	-.014	225	.989
	Male	123	3.41	0.60			

There were no significant differences among teacher opinions stated for the sub-dimensions on the entrepreneurship skills of school administrators concerning the gender variable. However, when the results are considered, it can be observed that male teachers expressed the highest opinion for the “Need for Achievement” dimension ( $\bar{X} = 3.51$ ) and female teachers expressed the highest opinion for the “Self-Confidence” ( $\bar{X} = 3.56$ ) dimension at “I Agree” level. The lowest opinions were expressed for the “Risk-Taking Propensity” dimension (Female,  $\bar{X} = 2.95$ ; Male,  $\bar{X} = 2.94$ ).

Results of the independent samples t-test, conducted to determine whether or not there is a significant difference among teacher opinions stated for the sub-dimensions on the entrepreneurship skills of school administrators concerning the educational status variable, are given on Table 5.



Table 5. T-test Results of the Teachers Concerning the Educational Status Variable

Dimensions	Gender	N	$\bar{X}$	S	t	sd	p
Need for Achievement	Graduate	186	3.44	.78	-.42	225	0.68
	Post-Graduate	41	3.49	.72			
Tolerance of Ambiguity	Graduate	186	3.31	.49	.29	225	0.98
	Post-Graduate	41	3.31	.39			
Self-Confidence	Graduate	186	3.48	.78	-.68	225	0.50
	Post-Graduate	41	3.57	.66			
Innovativeness	Graduate	186	3.40	.76	.14	225	0.89
	Post-Graduate	41	3.38	.63			
Risk-Taking Propensity	Graduate	186	2.97	.67	1.33	225	0.18
	Post-Graduate	41	2.82	.58			
Internal Locus of Control	Graduate	186	3.40	.65	-.62	225	0.54
	Post-Graduate	41	3.47	.54			

No significant differences were observed among teacher opinions concerning the sub-dimensions on school administrators' entrepreneurship skills with regards to the educational status variable. Teachers were observed to express highest opinions for the "Self-Confidence" dimension (Graduate  $\bar{X} = 3.48$ ; Post-Graduate  $\bar{X} = 3.57$ ) at "I Agree" level; and lowest opinions for the "Risk-Taking Propensity" dimension (Graduate  $\bar{X} = 2.97$ ; Post-Graduate  $\bar{X} = 2.82$ ) at "I am Uncertain" level.

Results of the one-way variance analysis, conducted to determine whether or not there is a significant difference among teacher opinions stated for the sub-dimensions on the entrepreneurship skills of school administrators concerning the type of school variable, are given on Table 6.

Type of School : Primary School (a), Secondary School (b), High School (c), Vocational High School (d)

Table 6. Variance Analysis Results of Teachers Concerning the Type of School Variable

Dimensions	Type of School	N	$\bar{X}$	ANOVA										
				Variance Source	Sum of Squares	sd	Mean Square	F	p	LSD				
Need for Achievement	a	68	3.59	Between	4.75	3	1.585	2.73	.045*	c>d				
	b	75	3.38											
	c	45	3.56								Within	129.70	223	.582
	d	39	3.20								Total	134.45	226	
	Total	227	3.45											
Tolerance of Ambiguity	a	68	3.46	Between	2.80	3	.93	4.37	.005*	a>b				
	b	75	3.27											
	c	45	3.29								Within	47.61	223	.21
	d	39	3.14								Total	50.41	226	
	Total	227	3.31											
Self-Confidence	a	68	3.60	Between	10.18	3	3.39	6.30	.000*	a>d				
	b	75	3.50											
	c	45	3.72								Within	120.09	223	.54
	d	39	3.07								Total	130.27	226	
	Total	227	3.50											
Innovativeness	a	68	3.55	Between	9.96	3	3.32	6.59	.000*	a>d				
	b	75	3.38											
	c	45	3.56								Within	112.43	223	.50
	d	39	2.97								Total	122.39	226	
	Total	227	3.39											
Risk-Taking Propensity	a	68	3.13	Between	4.01	3	1.34	3.17	.025*	a>b				
	b	75	2.89											
	c	45	2.95								Within	94.10	223	.42
	d	39	2.74								Total	98.11	226	
	Total	227	2.95											
Internal Locus of Control	a	68	3.50	Between	3.70	3	1.23	3.16	.025*	a>d				
	b	75	3.42											
	c	45	3.51								Within	87	223	.39
	d	39	3.15								Total	90.70	226	
	Total	227	3.41											

\* p < .05

A significant difference was observed among teacher opinions concerning the sub-dimensions on the entrepreneurship skills of school administrators with regards to the type of school variable. For the “Need for Achievement” sub-dimension, teachers working in primary and high schools were observed to express more positive opinions than teachers working in vocational high schools. For the “Tolerance of Ambiguity” sub-dimension, teachers working in primary schools were observed to express more positive opinions than teachers working in secondary schools and vocational high schools. For the “Self-Confidence,” “Innovativeness” and “Internal Locus of Control” sub-dimensions, teachers working in primary, secondary and high schools were observed to state more positive opinions than teachers working in vocational high schools. Teachers working in primary schools were observed to state more positive opinions for the “Risk-Taking Propensity” sub-dimension than teachers working in secondary school and vocational high schools. Teachers were observed to express highest opinions for the “Self-Confidence” dimension (Primary School,  $\bar{X}$  = 3.60) at “I Agree” level; and lowest opinions for the “Risk-Taking Propensity” dimension (V. High School,  $\bar{X}$  = 2.74) at “I am Uncertain” level.

Results of the one-way variance analysis, conducted to examine teacher opinions stated for the sub-dimensions on the entrepreneurship skills of school administrators concerning the age variable, are given on Table 7.

Table 7. Variance Analysis Results of Teachers Concerning the Age Variable

Dimensions	Variance Source	Sum of Squares	sd	Mean Square	F	p
Need for Achievement	Between Groups	4.31	6	.72	1.21	.300
	Within Groups	130.15	220	.59		
	Total	134.45	226			
Tolerance of Ambiguity	Between Groups	1.34	6	.22	1	.424
	Within Groups	49.07	220	.22		
	Total	50.41	226			
Self-Confidence	Between Groups	.56	6	.09	.16	.987
	Within Groups	129.71	220	.59		
	Total	130.27	226			
Innovativeness	Between Groups	1.26	6	.21	.38	.890
	Within Groups	121.13	220	.55		
	Total	122.39	226			
Risk-Taking Propensity	Between Groups	3.82	6	.64	1.49	.184
	Within Groups	94.30	220	.43		
	Total	98.17	226			
Internal Locus of Control	Between Groups	1.40	6	.23	.57	.751
	Within Groups	89.30	220	.41		
	Total	90.70	226			

No significant differences were observed among teacher opinions concerning the sub-dimensions on school administrators' entrepreneurship skills with regards to the age variable. Teachers were observed to express highest opinions for the "Need for Achievement" dimension (51+,  $\bar{X} = 4.17$ ) at "I Agree" level; and lowest opinions for the "Risk-Taking Propensity" dimension (46-50,  $\bar{X} = 2.38$ ) at "I am Uncertain" level. Results of the one-way variance analysis, conducted to examine teacher opinions stated for the sub-dimensions on the entrepreneurship skills of school administrators concerning the professional duration in the school variable, are given on Table 8.

Professional Duration : 1-5 years (a), 6-10 years(b), 11-15 years(c), 16-20 years(d), 21-25 years (e), 26+ (f)



Table 8. Variance Analysis Results of Teachers Concerning the Professional Duration in the School Variable

Dimensions	Profess. Duration	N	$\bar{X}$	ANOVA						
				Variance Source	Sum of Squares	sd	Mean Square	F	p	LSD
Need for Achievement	a	83	3.37	Between Groups	7.15	5	1.48	2.48	.033*	d>a
	b	58	3.41							
	c	51	3.36							
	d	21	3.93	Within Groups	127.30	221	.58			d>b
	e	8	3.47	Total	134.45	226				d>c
	f	6	3.92							
	Total	227	3.45							
Tolerance of Ambiguity	a	83	3.29	Between Groups	.31	5	.06	.28	.925	
	b	58	3.32							
	c	51	3.29							
	d	21	3.36	Within Groups	50.10	221	.23			
	e	8	3.23	Total	50.41	226				
	f	6	3.47							
	Total	227	3.31							
Self-Confidence	a	83	3.47	Between Groups	6.71	5	1.34	2.40	.038*	d>e
	b	58	3.44							
	c	51	3.52							
	d	21	3.92	Within Groups	123.56	221	.56			d>a
	e	8	2.93	Total	130.27	226				a>e
	f	6	3.47							d>b
	Total	227	3.50							d>c
										c>e
Innovativeness	a	83	3.38	Between Groups	7.24	5	1.45	2.78	.019*	d>a
	b	58	3.27							
	c	51	3.40							
	d	21	3.90	Within Groups	115.15	221	.52			d>b
	e	8	3.03	Total	122.39	226				d>c
	f	6	3.43							d>e
	Total	227	3.39							
Risk-Taking Propensity	a	83	2.85	Between Groups	5.49	5	1.10	2.62	.025*	d>a
	b	58	2.86							
	c	51	3.00							
	d	21	3.38	Within Groups	92.63	221	.42			d>b
	e	8	3.03	Total	98.12	226				d>c
	f	6	3.04							
	Total	227	2.95							
Internal Locus of Control	a	83	3.43	Between Groups	4.74	5	.95	2.43	.036*	d>a
	b	58	3.26							
	c	51	3.38							
	d	21	3.77	Within Groups	85.97	221	.39			d>b
	e	8	3.44	Total	90.70	226				d>c
	f	6	3.71							
	Total	227	3.41							

\* p < .05

When teacher opinions concerning the sub-dimensions on the entrepreneurship skills of school administrators with regards to the professional duration in the school variable are considered, there is a significant difference for all the sub-dimensions except for the “Tolerance of Ambiguity” sub-dimension. Teachers with service years between “16-20” stated more positive opinions for the “Need for Achievement”, “Risk-Taking Propensity” and “Internal Locus of Control” sub-dimensions than teachers with service years between “1-5”, “6-10” and “11-15”. Teachers with “16-20” service years stated more positive opinions than the

teachers with other years of service for the “Self-Confidence” sub-dimension. Teachers with “1-5” and “11-15” service years were observed to state more positive opinions than teachers with “21-25” years of service for the same sub-dimension. For the “Innovativeness” sub-dimension, teachers with “16-20” years of service were observed to state more positive opinions than the teachers with other years of service. The highest opinion was observed to be stated for the “Need for Achievement” (16-20,  $\bar{X} = 3.93$ ) and “Self-Confidence” (16-20,  $\bar{X} = 3.92$ ) dimensions and the lowest opinion was observed to be stated for the “Risk-Taking Propensity” dimension (1-5,  $\bar{X} = 2.85$ ). The analysis also indicated that teachers with “16-20” years of service perceive school administrators as more entrepreneurse than teachers with other years of service.

#### 4. Conclusion And Discussion

In this study, school administrators’ entrepreneurse skills were examined based on the gender, age, type of duty, type of school, educational status and professional duration in the school variables of teachers.

According to the study findings, teachers stated the entrepreneurship skills of school administrators; at “I Agree” level for “Need for Achievement”, “Self-Confidence” and “Internal Locus of Control” dimensions, at “I am Uncertain” level for the “Tolerance of Ambiguity”, “Innovativeness” and “Risk-Taking Propensity” dimensions. These results indicate that school administrators attach importance to success, they believe they have the skills and confidence required for achieving certain tasks and incline towards entrepreneurship. However, administrators can be considered to avoid ambiguous and risk-taking situations. According to a study conducted by Çelik (2013), teacher opinions were at “I Agree” level for “Need for Achievement”, “Self-Confidence” and “Internal Locus of Control” dimensions, and at “I Disagree” level for the “Tolerance of Ambiguity”, “Innovativeness” and “Risk-Taking Propensity” dimensions. This study and the study conducted by Çelik (2013) are parallel at the “Need for Achievement”, “Self-Confidence” and “Internal Locus of Control” dimensions.

When school administrators’ entrepreneurship skills are considered with regards to the gender, age and educational status of teachers variables; there are no significant differences among the sub-dimensions. According to the result, the gender, age and educational status of teachers do not affect their perceptions on the entrepreneurship skills of the administrators. In the study conducted by Çelik (2013), while no significant differences were observed for the gender and educational status of teacher’s variables, there was a significant difference at “Need for Achievement” and “Tolerance of Ambiguity” sub-dimensions with regards to the age variable. While both studies support each other at the gender and educational status variables, they do not support each other for the age variable. No differences were detected concerning the gender variable in studies examining the entrepreneurship propensities of university students (Yılmaz and Sünbül, 2009; Bilge and Bal, 2012). These studies support the findings of this study. In the study conducted by Doğaner and Altunoğlu (2010) on entrepreneurship propensities of universities, it was observed that male students have higher propensity towards entrepreneurship than female students. This result has differences with the study findings.

When school administrators’ entrepreneurship skills are considered with regards to the type of school variable, there are significant differences among all the sub-dimensions. Teachers working in primary, secondary and high schools were observed to state more positive opinions than teachers working in vocational high schools at all dimensions. Primary school teachers stated more positive opinions than secondary school teachers for the “Tolerance of Ambiguity” and “Risk-Taking Propensity” sub-dimensions. This indicates that teachers working in primary, secondary and high schools perceive their administrators as highly entrepreneurse and that teachers working in vocational high school perceive their administrators as entrepreneurs at lower levels. Because vocational high school settings (workshops and laboratories) are oriented towards production, the expectations towards entrepreneurship are high. However, teacher perceptions can be considered to be low because vocational high schools fail to fulfil this expectation.

When teacher opinions on administrators’ entrepreneurship skills are considered with regards to the professional duration in the school variable; a significant difference was observed at all dimensions except the “Tolerance of Ambiguity” dimension. Teachers with 16-20 years of service were observed to state more positive opinions than teachers of the other professional seniority groups. This indicates that teachers with high seniority perceive their school administrators’ entrepreneurship skills at sufficient level. In the study conducted by Çelik (2013), a significant difference was observed at the “Need for Achievement” and “Internal Locus of Control” dimensions and novice teachers perceived their school administrators’ entrepreneurship skills more sufficiently than experienced teachers. According to these results, there are differences among the results of the two studies.

Findings of the study indicate that schools administrators are perceived as entrepreneurs by the teachers. The results obtained from the self-confidence and risk-taking propensity factors, which are among psychological factors, are outstanding. When the self-confidence sub-dimension related to schools administrators’ entrepreneurship skills are considered, it is evident that teacher perceptions were high at all dimensions. High self-confidence levels of school administrators can be considered as a positive psychological factor with regards

to entrepreneurship skills. However, when the risk-taking propensity sub-dimension is examined with regards to various variables, teacher perceptions were relatively higher than in other dimensions. This indicates that school administrators are reluctant in and avoid risk situations. This can also be considered as a negative psychological factor for the entrepreneurship skills of school administrators.

The following suggestions can be made with respect to the study results:

- In order to increase school administrators' entrepreneurship skills, seminars and in-service trainings can be offered through the cooperation between universities and KOSGEB.
- School administrators are people who have a background in the teaching profession. In order to increase the entrepreneurship skills of school administrators, it will be beneficial to include the entrepreneurship course in all teacher training curriculums of universities.
- School administrators should be guided towards post-graduate education programs so as to increase their knowledge in their field, to improve their vision and to be informed about various roles concerning administration.
- School administrators should adopt an innovative approach and display this towards the teachers working in the school.
- Studies on the reasons why school administrators' risk-taking propensities are low can be conducted.
- The reasons why teacher perceptions, who work in vocational high schools, on school administrators' entrepreneurship skills are low can be studied.
- The data of this study were limited with teacher perceptions. Studies can be conducted on more vast populations and the extent of how school administrators perceive themselves as entrepreneurs can be examined.

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