

**PERCEPTIONS OF TEACHERS WORKING IN PRIMARY AND SECONDARY SCHOOLS
REGARDING THE INNOVATION MANAGEMENT COMPETENCIES OF SCHOOL MANAGERS***

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Abstract

The aim of this study is to reveal the perception levels of teachers working in official primary and secondary schools regarding the innovation management competencies of their administrators and to determine whether these perception levels differ significantly according to some variables. In this survey model, data were obtained from a total of 582 teachers working in official primary and secondary schools in Yenisehir, Sur, Bağlar and Kayapınar central districts of Diyarbakır. The opinions of the teachers participating in the research on "Perception of Innovation Management Competence" and all its sub-dimensions correspond to the level of "Moderate Agree". There is no significant difference between the opinions of the teachers in the total and sub-dimensions of the "Innovation Management Competence Scale" regarding the innovation management competencies of their managers, according to the variables of branch, age and number of students. It has been determined that teachers with 8-11 years of seniority in the dimension of "Innovation Strategy" have a more innovative perception than teachers with 4-7 years of seniority. In the dimension of "Organizational Culture and Structure", it was determined that teachers with a seniority of 8-11 years have a more innovative perception than teachers with a seniority of 0-3 years and 4-7 years. In addition, it has been determined that teachers in schools where the number of teachers in their schools are high have more negative views on the dimension of input management in terms of the competence of their administrators to manage innovation.

Keywords: *innovation, innovation management, competence, school manager, teacher perception*

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İLK VE ORTAOKULLARDA GÖREV YAPAN ÖĞRETMENLERİN OKUL YÖNETİCİLERİNİN YENİLİK YÖNETİMİ YETERLİKLERİNE İLİŞKİN ALGILARI

Öz

Bu çalışmanın amacı resmi ilk ve ortaokullarda görev yapan öğretmenlerin, yöneticilerinin yenilik yönetimi yeterliklerine ilişkin algı düzeylerini ortaya koymak ve bu algı düzeylerinin bazı değişkenlere göre anlamlı şekilde farklılaşıp farklılaşmadığını belirlemektir. Tarama modelindeki bu çalışmada veriler Diyarbakır ili Yenişehir, Sur, Bağlar ve Kayapınar merkez ilçeleri resmi ilk ve ortaokullarda görev yapan toplam 582 öğretmenden elde edilmiştir. Araştırmaya katılan öğretmenlerin “Yenilik Yönetimi Yeterlik Algısı” ve tüm alt boyutlarındaki görüşleri “Orta Derecede Katılıyorum” düzeyine karşılık gelmektedir. Öğretmenlerin, yöneticilerinin yenilik yönetimi yeterliliklerine ilişkin, “Yenilik Yönetimi Yeterliği Ölçeği” toplam ve alt boyutlarındaki görüşleri arasında branş, yaş, öğrenci sayısı değişkenlerine göre anlamlı fark bulunmamaktadır. Mesleki kıdeme göre “Yenilik Stratejisi” boyutunda kıdemi 8-11 yıl olan öğretmenler kıdemi 4-7 yıl olan öğretmenlere göre daha yenilikçi bir algıya sahip oldukları belirlenmiştir. “Örgütsel Kültür ve Yapı” boyutunda ise 8-11 yıl arası kıdeme sahip öğretmenlerin 0-3 yıl arası ve 4-7 yıl arası kıdeme sahip öğretmenlerden daha yenilikçi bir algıya sahip oldukları belirlenmiştir. Ayrıca okullarındaki öğretmen sayısının fazla olduğu okullardaki öğretmenlerin, yöneticilerinin yeniliği yönetme yeterliği noktasında girdi yönetimi boyutuna ilişkin daha olumsuz görüşlere sahip olduğu tespit edilmiştir.

Anahtar Kelimeler: *yenilik, yenilik yönetimi, yeterlik, okul yöneticisi, öğretmen algısı*

Introduction

According to Adair (2008), innovation is more than acquiring latest ideas; it is the successful presentation of ideas or the creation of something in a new way. Transforming ideas into useful and viable business products or services. In the Oslo Manual (2005), “the concept of innovation is defined as the application of a new or significantly improved product (good or service) or process, a new marketing method or organizational management in internal practices, workplace organization or external relations.” By all definitions, the common point of innovation is that it is something new or untested.

Although innovation management has been practiced professionally since the second half of the 19th century, it has emerged after the Second World War that organizations and nations see innovation management as a necessity for their technological survival (Ortt & Duin, 2008). Although no systematic and comprehensive framework has been developed to guide managers in a successful innovation management process, many academics and companies have stated that innovation management varies according to sectors (Lawson & Samson, 2001, cited in Ömür, 2014).

Technology, invention, entrepreneurship, creativity, change and R&D are mentioned together with innovation in all organizations, especially educational organizations, and these concepts should be used together with innovation and should not be confused. Technology is known as the most important creative power and input of innovation (Saruhan & Yıldız, 2009). “The first emergence of an idea about a new product or process is invention, and the first attempt to put this idea into practice is innovation” (Szmytkowki, 2005; cited in Özkan, 2009). R&D is one of the activities that support innovation, and it is a dynamic process with various feedbacks and changes at every stage (Elçi, 2006). Considering that the efforts to increase the economic value of existing resources are called innovation, innovation is the most prominent

and valuable tool of entrepreneurship. Innovation and creativity are two concepts that should not be separated from each other. Innovation is a process. Creativity is the set of skills and abilities that makes this process possible (Bülbül, 2010). Change, on the other hand, is the differentiation process that occurs because of creativity or innovation (Tunç, 2007).

“Gümüşlüoğlu (2009) stated that one of the building blocks of an innovative organizational culture is an organizational structure that is open to innovation.” Because, according to Bülbül (2010), "organizational structure and processes are of great importance in the development of innovative aspects of organizations, and some arrangements must be made in organizational structure and processes in order to make organizations more innovative". As a matter of fact, Kaufmann and Tödtling (2002; cited in Ömür, 2014) stated that innovation can be realized in an appropriate organizational environment that can be achieved with top management support, a successful technology strategy, appropriate organizational structure, technology culture and human resources equipped with certain skills.

The subject of innovation which is a social, cultural, political, economic, etc. that concerns the entire society, is affected by scientific and technological innovations. It is of particular importance in educational institutions, where the elements are taught and developed. Considering both the dynamic and static aspects of educational institutions, this situation can be seen more clearly. While educational institutions teach, protect, and develop the values of the society with their static side, they are places that will keep up with change and development with their dynamic side and live and let them live (Argon et al., 2014). It is possible to say that the education system and schools are affected by the changes in the world. There is a two-way interaction between education and innovation; Education both reorganizes itself by being affected by the changes in the society, and education must lead the renewal of the society (Özdemir, 2013). It is a necessity for educational organizations to shape their management philosophies according to the needs of the age and the future (Töremen, 2002).

In the renewal process, the change in the perspective of all the structure and human elements in the organization is discussed to change the school organization's own structure, its elements in the structure, value judgments, working conditions and the aims of the organization. Innovation is not just an idea or concept, but its implementation to increase effectiveness. Schools should not only develop in terms of education, they should be open to the society and the emotional side of the student, accept social diversity, be sensitive to technology, protect their moral value in the eyes of the society, be democratic while teaching and teaching democracy, be ready for the competitive environment of today's world, and while doing all these. it should also question its own structure and become functional. (Beycioğlu & Aslan, 2009).

Innovative schools tend to seek ways to enhance their students' learning experiences by encouraging educators to consult each other on course topics and disciplinary events, and by using new tools and technology in the classroom (Watt, 2002). In innovative schools, talented teachers incorporate invention, improvisation and innovation into their lesson plans and teaching strategies, and design unique learning activities that provide more impact than they would achieve in the activities suggested in the teaching guides (Bubner, 2009, cited in Bülbül, 2012a).

In order for the innovation process to be successful and to achieve the desired change, it must be managed effectively. According to Töremen (2002), the knowledge, skills and behaviors of school administrators are also effective on students and teachers, non-

educational personnel, and student parents. School administrators, which are so important, must have certain competencies.

In the school environment, it is necessary to prepare procedures that will eliminate the effect of the chain of command and hierarchical differences between the school administrator and the teacher. If innovation is practiced in the habitual and problematic organizational structure, the probability of innovation to be successful may be quite low (Özdemir & Cemaloğlu, 2000). According to Watt (2002) in innovative schools, teachers seek ways to improve their students' learning experiences by consulting each other on professional issues and using new materials and technologies in their classrooms, students get the chance to use what they learned in one lesson in other lessons, and students are provided with the necessary tools become successful learners. School administrators will not only contribute to school development with their innovative management approaches but will also ensure that the trained labor has an innovative understanding (Top, 2011).

Managers may feel competent to handle some situations, but this sense of competence may or may not be transferred to other situations. The administrator may see himself as sufficient, but the teachers may not perceive it that way. Therefore, it is necessary to consider the elements of the current subject to make a proficiency assessment (Tschannen-Moran & Gareis, 2004, cited in Bülbül, 2012a). For this reason, innovation management competencies of administrators are discussed in the context of teachers' perceptions. When the literature is examined, it is thought that this study will enable teachers to evaluate the managerial competence levels of primary and secondary school administrators in terms of innovation management, and because of these evaluations, it will contribute to the training of school administrators according to the required competencies.

Purpose of the research

"The aim of this study is to reveal the perception levels of teachers and school administrators working in official primary and secondary schools in Yenisehir, Sur, Bağlar and Kayapinar central districts of Diyarbakır province and to determine whether these perception levels differ significantly according to some variables."

Problem Statement

The problem statement of the research is "What is the perception of the teachers working in primary and secondary schools regarding the innovation management competencies of school administrators?" poses a question.

For this purpose, answers to the following questions were sought:

"1. What are the perceptions of the teachers working in primary and secondary schools regarding the innovation management competencies of school administrators?"

2. Perceptions of primary and secondary school teachers about innovation management competencies of school administrators.

- a) Its branches,
- b) Professional seniority,
- c) Their age,
- d) The number of teachers in their schools,
- e) Does it differ significantly according to the number of students in their schools?"

Method

Research Model

With this research, it is aimed to reveal the perceptions of the teachers working in primary and secondary schools in the central districts of Diyarbakır, Yenişehir, Sur, Bağlar and Kayapınar, about “the innovation management competencies of school administrators” and to examine whether these perceptions differ significantly according to some variables.

“The research was designed in a relational survey model based on the general survey (descriptive) model, since it aims to obtain general information about a universe consisting of a large number of people, to describe a situation that has happened in the past or still exists, and to reveal whether there is a relationship between two or more variables (Cohen et al., 2007; Karasar, 1999).”

Universe and Sample

The study population consisted of 6706 teachers working in primary and secondary schools affiliated to the “Ministry of National Education” in the central districts of Diyarbakır, Yenişehir, Sur, Bağlar and Kayapınar in the second semester of the 2014-2015 academic year. The sample of the study was obtained by reaching 606 teachers randomly selected among 6706 teachers working in primary and secondary schools in Yenişehir, Sur, Bağlar and Kayapınar central districts of Diyarbakır province. When the collected data were examined, 24 teacher forms were deemed invalid due to missing or incorrect filling, and 582 teacher forms were accepted as valid. "Simple random sampling method" was chosen as the sampling method in determining the research group. “In this sampling method, all units in the universe have an equal and independent chance to be selected for sampling. In other words, the probability of being selected for all individuals is the same, and the choice of an individual does not affect the selection of other individuals” (Büyüköztürk et al., 2011). Demographic information about the teachers participating in the research is given in Table 1:

Table 1. Demographic Information of the Teachers Participating in the Research

| | TEACHER | |
|---------------------------|---------|------|
| | n | % |
| Gender | | |
| Female | 288 | 49,5 |
| Male | 294 | 50,5 |
| Educational status | | |
| Licence | 564 | 96,9 |
| Master's degree | 16 | 2,7 |
| Doctorate | 2 | ,3 |
| Teacher Branch | | |
| Classroom teacher | 232 | 39,9 |
| Branch teacher | 350 | 60,1 |
| Seniority | | |
| 0-3 year | 159 | 27,3 |

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| | | |
|---|-----|------|
| 4-7 year | 200 | 34,4 |
| 8-11 year | 119 | 20,4 |
| 12-15 year | 70 | 12 |
| 16-19 year | 10 | 1,7 |
| 20 and over | 24 | 4,1 |
| Age | | |
| 21-30 age | 237 | 40,7 |
| 31-40 age | 293 | 50,3 |
| 41-50 age | 43 | 7,4 |
| 51-60 age | 9 | 1,5 |
| Length of service at the school | | |
| 0-2 Year | 279 | 47,9 |
| 3-5 Year | 185 | 31,8 |
| 6 Year and above | 118 | 20,3 |
| Number of teachers in the school | | |
| 0-10 | 45 | 7,7 |
| 11-21 | 100 | 17,2 |
| 22-32 | 181 | 31,1 |
| 33-43 | 161 | 27,7 |
| 44 and over | 95 | 16,3 |
| Number of students in school | | |
| 0-300 | 84 | 14,4 |
| 301- 500 | 161 | 27,7 |
| 501-700 | 194 | 33,3 |
| 701-900 | 143 | 24,6 |
| 901 and over | - | - |

When Table 1 is examined, it is seen that 49.5% (288) of the participants were female teachers and 50.5% (294) were male teachers; 96.9% (564) of them were undergraduate graduates, 2.7% (16) graduate, 0.3% (2) doctorate graduates; it is seen that 39.9% (232) are class teachers and 60.1% (350) are branch teachers.

In addition, 27.3% (159) of the teachers in the sample have 0-3 years of seniority, 34.4% (200) of the teachers with a seniority of 4-7 years, 20.4% (119) 8 -12% (70) of teachers with a seniority of 11 years, teachers with a seniority of 12-15 years, 1.7% (10) of teachers with a seniority of 16-19 years, and 4.1% (24) It is seen that it is composed of teachers with 20 years and more seniority; 40.7% (237) of 21-30 age group teachers, 50.3% (293) 31-40 age group teachers, 7.4% (43) 41-50 age group teachers and 1% It is seen that ,5 (9) of them are teachers in the 51-60 age group.

47.9% (279) of the sample consists of teachers who have worked between 0-2 years, 31.8% (185) between 3-5 years, 20.3% (118) 6 years or more.in the schools, 7.7% (45) of the teachers were 0-10 teachers, 17.2% (100) were 11-21 teachers, 31.1% (181) were 22-32 teachers, 27%, 7 (161) have 33-43 teachers, 16.3% (95) have 44 or more teachers. In addition, 14.4% (84) of the administrators' schools are between 0-300 students, 27.7% (161) are

between 301-500 students, 33.3% (194) are between 501-700 students and 24% are, 6 of them (143) have students between 701-900.

Data collection tool

In the research, “the literature on the perceptions of primary and secondary school teachers about the innovation management competencies of school administrators” was scanned and relevant texts were used. In the research, “the Innovation Management Scale in Schools Teacher Form” was used as a data collection tool. Necessary information about these scales is given below:

Innovation Management Scale in Schools:

As a data collection tool in the research, the “Innovation Management Scale in Schools” (IMSS) developed by Bülbül (2012b) was used. Confirmatory factor analysis was applied, and the structure of the scale was confirmed (Croanbach Alpha= .98) by examining whether the "Innovation Management Scale at Schools" (Croanbach Alpha= .96), whose original form was prepared for school administrators, had the same structure in the teacher group (Göl, 2012).

The first part of the scales was formed by the personal information form to obtain the personal and professional information of the teachers who constitute the sample group of the research.

Teacher Form:

In the second part, there are questions for teachers. All questions were prepared to measure the perceptions of the teachers who answered the questionnaire about the “innovation management competencies of their administrators.” Scale: It consists of four sub-dimensions including “Project Management, Organizational Culture and Structure, Innovation Strategy and Input Management” and 32 five-point Likert type items. All items in the scale are scored as “1-Strongly Agree”, “2-Slightly Agree”, “3-Moderately Agree”, “4-Highly Agree”, and 5-Strongly Agree”. “There is no reverse scored item in the scale. A total score can be obtained from the scale. High scores that can be obtained from the entire scale and the sub-dimensions indicate that teachers' perceptions of school administrators' innovation management competencies are high.” Table 2 shows the score limits aimed at determining the level of agreement of teachers for each statement:

Table 2. Score Limits Determining Teachers' Levels of Agreeing with Statements

| | |
|--------------------|--------------|
| “Never agree” | “1.00- 1.79” |
| “I slightly agree” | “1.80- 2.59” |
| “Moderately agree” | “2.60- 3.39” |
| “I agree a lot” | “3.40- 4.19” |
| “I totally agree” | “4.20- 5.00” |

As seen in Table 2, the lowest score in the questionnaire is 1 while the highest score is 5. For example, a teacher who ticks “Totally Agree (5)” for the statement “Follows new developments in the field of education” indicates that her manager has competence in Innovation Strategy.

Analysis of Data

"The data obtained in the analysis of the data were entered into the SPSS 21 statistical package program and analyzed through this program." Percentage and frequency techniques were used to express the demographic characteristics of the participants statistically.

To determine whether there is a relationship between the scores obtained from the Innovation Management Scale at Schools and independent variables, t-test and ANOVA from parametric tests, Mann Whitney U and Kruskal Wallis-H tests from non-parametric tests were used. It was found more appropriate to use non-parametric tests in cases where the independent variables of the study were not homogeneously distributed within themselves (Büyükoztürk et al., 2015). During these statistical processes, significance was sought at the .05 level.

In the study, teachers' perceptions of innovation management in Diyarbakır were evaluated in line with the dimensions specified in the sub-goal questions.

Among the sub-objectives of the research, the question "Does the perceptions of the teachers working in primary and secondary schools regarding the innovation management competencies of school administrators differ according to the branch?" was tried to be answered with the independent groups t-test and Mann Whitney U. Other research questions sought to be answered within the framework of the general purpose of the research; Do the perceptions of the school administrators regarding the innovation management competencies of the teachers who do this differ according to a) seniority b) age c) number of teachers d) number of students? The answers to the questions were tried to be answered with "one-way analysis of variance (One-Way Anova) and Kruskal Wallis H." In case the result of analysis of variance was significant, the Tukey test was used to find the source of the difference.

Findings and Comments

In this part of the study, the findings obtained through the analysis of the data obtained in accordance with the order of the problems and sub-problems of the research and comments on them are emphasized. The number of items in each sub-dimension of the "Innovation Management Scale at Schools" is not equal, therefore, in the analyzes in this section, in order to compare the sub-dimensions constituting the innovation management competencies with each other, the arithmetic average of the scores of each factor is divided by the number of items that make up that dimension, and as 1- Converted to 5 points.

Findings and Comments on the First Sub-Problem

In this title, the findings regarding the perceptions of the teachers working in primary and secondary schools regarding the innovation management competencies of school administrators are included.

Descriptive Statistics of Primary and Secondary School Teachers' Perceptions of their Managers' Innovation Management Competencies

The descriptive statistics of primary and secondary school teachers' perceptions of their managers' innovation management competencies are given in Table 3.

Table 3. Descriptive Statistics of Teachers' Perceptions of their Administrators on Innovation Management Competencies

| Dimensions | n | Number of items | lowest score | highest score | \bar{X} | $\bar{x}/$ Number of items | SS |
|--|-----|-----------------|--------------|---------------|-----------|----------------------------|-------|
| "Input Management" | 582 | 5 | 5.00 | 25.00 | 14.96 | 2.99 | 5.50 |
| "Innovation Strategy" | 582 | 6 | 6.00 | 30.00 | 18.89 | 3.14 | 6.71 |
| "Organizational Culture and Structure" | 582 | 6 | 6.00 | 30.00 | 19.45 | 3.24 | 6.56 |
| "Project Management" | 582 | 15 | 15.00 | 75.00 | 47.55 | 3.17 | 15.85 |
| "Innovation Management Total" | 582 | 32 | 32.00 | 160.00 | 100.86 | 3.15 | 33.23 |

As can be seen in Table 3, the average scores of the teachers participating in the research for the sub-dimensions were = 2.99 for the "Input Management" dimension, = 3.14 for the "Innovation Strategy" dimension, = 3.24 for the "Organizational Culture and Structure" dimension, and the "Project Management" dimension, respectively. = 3.17 for "Sum of Perceptions on Innovation Management Competencies" = 3.15. Accordingly, it is seen that the opinions of the teachers participating in the research on "Perception of Innovation Management Competence" and all its sub-dimensions correspond to the level of "Moderate Agree." Ömür's (2014) research also supports the findings. From the averages in Table 3, it is understood that teachers consider their administrators to be most competent in "Organizational Culture and Structure", "Innovation Strategy" in the second place, "Project Management" in the third place and "Input Management" in the last place.

According to the findings of this research, teachers should provide their administrators with the necessary information, tools, people, environment, etc. for innovation studies. While they perceive it as less sufficient in providing inputs, they perceive it as more sufficient in creating an atmosphere of innovation in the school, adoption, and diffusion of innovations. This finding also shows that the competencies of school administrators should be developed in the dimension of input management. It is thought that the moderate level of teachers' views on innovation management competencies of the administrators working in primary and secondary schools is a result of the school administrators' inability to take much action on innovation. It can be interpreted that the managers may have abstained from the point of risk taking and innovation management.

Findings and Interpretation on the Second Sub-Problem

In this title, the second sub-problem of the research, the findings obtained from the examination of the perceptions of the teachers working in primary and secondary schools

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regarding the innovation management competencies of school administrators according to demographic variables are included.

Analyzes Based on Branch Variable

To determine whether there is a significant difference according to the branch variable in the perception of the innovation management competencies of the teachers working in primary and secondary schools, the independent group's t-test was conducted, and their average scores were calculated. Levene's test values were examined to determine whether the data showed a homogeneous distribution, Mann Whitney U test was applied for the results obtained significant difference and are presented in Table 4.

Table 4. Comparison of Teachers' Managers' Perceptions on Innovation Management Competencies by Branch

* p<.05

| Dimensi ons | Branch | n | \bar{X} | SS | Df | Levene' s Test | | | | MWU | p | Rank aver age |
|---|------------------------------|-----|-----------|------|------|-------------------|-----|------|-----|--------|-----|---------------------|
| | | | | | | F | p | t | p | | | |
| Input Manage ment | classro om | 232 | 3.09 | 1.16 | 458, | 4.41 | 0.0 | 1.70 | .08 | 36798. | .05 | 307. 8 |
| | teacher branch teacher | 350 | 2.92 | 1.05 | 3 | 3* | 5 | 9 | 5 | 5 | 5 | 280. 6 |
| Innovati on Strategy | classro om | 232 | 3.22 | 1.16 | 580 | 1.26 | 0.2 | 1.39 | .16 | | | |
| | teacher branch teacher | 350 | 3.09 | 1.08 | | | 6 | 5 | 4 | | | |
| Organiz ational Culture and Structur e | classro om | 232 | 3.30 | 1.12 | 580 | 1.02 | 0.3 | 1.06 | .28 | | | |
| | teacher branch teacher | 350 | 3.20 | 1.07 | | | 1 | 4 | 8 | | | |
| Project Manage ment | classro om | 232 | 3.21 | 1.08 | 580 | 0.91 | 0.3 | .884 | .37 | | | |
| | teacher branch teacher | 350 | 3.13 | 1.03 | | | 3 | 7 | | | | |

When the t-test results, which are given in Table 4, are analyzed to determine whether the perceptions of primary and secondary school teachers regarding the innovation management competencies of school administrators differ according to their branches (classroom teacher-branch teacher), the "Innovation Strategy" in "teachers' perceptions of school administrators' innovation management competencies" is examined. "Organizational Culture and Structure" and "Project Management" dimensions did not show a statistically significant difference (Innovation Strategy [t (580) = 1.395 P > .05]. "Organizational Culture

and Structure" [t (580) = 1.064 P> .05] (Project Management [t(580) = .884 P > .05]). Although Levene's test was significant in the Input Management sub-dimension (MWU=36798.5 p>.05), it was determined that there was no significant difference between the views of classroom and branch teachers.

Analyzes Based on Professional Seniority Variable

In order to determine whether there is a significant difference in innovation management according to professional seniority in the perceptions of teachers working in primary and secondary schools regarding innovation management competencies of their managers, the average scores of the participants were calculated according to their professional seniority. One-way analysis of variance was used to determine whether the difference between the scores was significant, and the Tukey test was used to determine between which groups the significant difference was. The results are presented in Table 5.

Table 5. Comparison of Teachers' Managers' Perceptions on Innovation Management Competencies by Professional Seniority

| Dimensions | Seniority | n | \bar{X} | SS | Source of variance | Sum of squares | Df | Mean of squares | F | p | Significant difference (Tukey) |
|---------------------|---------------|-----|-----------|-----|--------------------|----------------|-----|-----------------|-----|------|--------------------------------|
| Input Management | 1.0-3 year | 159 | 2.9 | 1.1 | Between groups | 12.30 | 5 | 2.46 | 2.0 | .070 | - |
| | 2.4-7 year | 200 | 2.9 | 1.0 | | 691.0 | 576 | 1.20 | | | |
| | 3.8-11 year | 119 | 3.2 | .98 | Within groups | 703.3 | 581 | | | | |
| | 4.12-15 year | 70 | 3.0 | 1.1 | | | | | | | |
| | 5.16-19 year | 10 | 2.5 | 1.4 | Total | 3 | | | | | |
| | 6.20 and over | 24 | 3.1 | 1.1 | | | | | | | |
| | Levene:2.51 | | p= .029* | | | | | | | | |
| Innovation Strategy | 1.0-3 year | 159 | 3.0 | 1.1 | Between groups | 16.75 | 5 | 3.35 | 2.7 | .019 | 2-3 |
| | 2.4-7 year | 200 | 3.0 | 1.1 | | 710.4 | 576 | 1.20 | | | |
| | 3.8-11 year | 119 | 3.3 | .97 | Within groups | 727.2 | 581 | | | | |
| | 4.12-15 year | 70 | 3.2 | 1.1 | | | | | | | |
| | 5.16-19 year | 10 | 2.6 | 1.4 | Total | 5 | | | | | |
| | 6.20 and over | 24 | 3.4 | 1.1 | | | | | | | |
| | Levene:2.18 | | p= .055 | | | | | | | | |
| Organiz | 1.0-3 year | 159 | 3.1 | 1.1 | Between | 15.66 | 5 | 3.13 | 2.6 | .022 | - |

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| | | | | | | | | | | | |
|-----------------------|---------------|-------------|---------|-----|---------|-------|-----|------|-----|------|---|
| ational | | | 3 | 4 | groups | 680.3 | | 5 | * | | |
| Culture and Structure | 2.4-7 year | 200 | 3.1 | 1.1 | Within | 9 | 576 | 1.18 | | | |
| | | | 3 | 0 | groups | 696.0 | | | | | |
| | 3.8-11 year | 119 | 3.4 | .96 | Total | 5 | 581 | | | | |
| | 4.12-15 year | 70 | 3.3 | 1.0 | | | | | | | |
| | 5.16-19 year | 10 | 2.8 | 1.5 | | | | | | | |
| | 6.20 and over | 24 | 3.5 | 1.0 | | | | | | | |
| | | | 6 | 2 | | | | | | | |
| | | Levene:2.72 | p=.046* | | | | | | | | |
| Project Management | 1.0-3 year | 159 | 3.0 | 1.1 | Between | 10.00 | 5 | 2.00 | 1.8 | .110 | - |
| | | | 9 | 1 | groups | | | | 0 | | |
| | 2.4-7 year | 200 | 3.0 | 1.0 | Within | 639.1 | 576 | 1.11 | | | |
| | | | 7 | 8 | groups | 6 | | | | | |
| | 3.8-11 year | 119 | 3.3 | .95 | Total | 649.1 | 581 | | | | |
| | 4.12-15 year | 70 | 3.2 | .95 | | 6 | | | | | |
| | 5.16-19 year | 10 | 2.8 | 1.3 | | | | | | | |
| | 6.20 and over | 24 | 3.4 | .97 | | | | | | | |
| | | | 6 | | | | | | | | |
| | | Levene:2.36 | p=.039* | | | | | | | | |

*p<.05

Before determining whether the perceptions of teachers working in primary and secondary schools regarding innovation management competencies of their administrators differ significantly according to their professional seniority, the homogeneity of the variances of the distributions was tested with the Levene's test. And Structure" (L= 2.72; p<.05), and "Project Management" (L= 2.36; p<.05) dimensions were not homogeneous; It was observed that the variance of the "Innovation Strategy" dimension was homogeneous (L= .055; p>.05). Then, the process of determining the difference between the means was started.

In Table 5, when the analysis results showing whether there is a relationship between the perceptions of primary and secondary school teachers regarding the innovation management competencies of their administrators and their professional seniority, "Input Management" [F(5, 576)=2.05; p>0.05] and "Project Management" [F(5, 576)=1.80; p>0.05], the difference between the groups was not significant, however, "Organizational Culture and Structure" [F(5, 576)=2.65; p<0.05] and "Innovation Strategy" [F(5, 576)=2.71; p<0.05] scores were found to be significant. When the results of the Tukey Test applied to determine the significant difference in the "Innovation Strategy" scores are examined, it is seen that the differences between "teachers with 4-7 years of seniority and 8-11 years of seniority" in the "Innovation Strategy" dimension are significant. If we look at the averages in this dimension, the averages of teachers with 8-11 years of seniority are higher than the averages of teachers with 4-7 years of seniority.

Teachers with 8-11 years of seniority consider their administrators more competent in choosing and using appropriate strategies for successful innovations than teachers with 4-7 years of seniority. It can be interpreted that teachers with 8-11 years of experience perceive their administrators as innovative leaders who prioritize innovations that will contribute to the development of the school, who are open in communication during the innovation process, who ensure the efficient use of school resources, and who direct the staff. The reason for this situation can be considered as the fact that teachers with 8-11 years of seniority are in more communication with the administrators. It can be interpreted that teachers with 8-11 years of seniority may perceive their administrators as more competent since they may be more open to innovation in choosing and using appropriate strategies. Since teachers with less seniority focus more on understanding the functioning of the school, it can be thought that they may experience some difficulties in terms of bureaucratic socialization in terms of understanding the institution.

The Kruskal Wallis H Test results regarding the total items that do not show homogeneous distribution in the dimensions of "Input Management", "Organizational Culture and Structure" and "Project Management" according to the professional seniority variable of the perceptions of the teachers working in primary and secondary schools regarding the innovation management competencies of their administrators are given in Table 6.

Table 6. Kruskal Wallis-H Test Results of the Comparison of the Perceptions of Teachers' Managers on Innovation Management Competencies by Professional Seniority (Input Management, Organizational Culture and Structure and Project Management)

| Dimensions | Seniority | n | Mean rank | Df | KWH | p |
|--------------------------------------|---------------|-----|-----------|----|-------|-------|
| Input Management | 1.0-3 year | 159 | 280,99 | 5 | 9,788 | .081 |
| | 2.4-7 year | 200 | 276,33 | | | |
| | 3.8-11 year | 119 | 327,13 | | | |
| | 4.12-15 year | 70 | 295,35 | | | |
| | 5.16-19 year | 10 | 232,70 | | | |
| | 6.20 and over | 24 | 324,08 | | | |
| Organizational Culture and Structure | 1.0-3 year | 159 | 274,35 | 5 | 12,29 | .031* |
| | 2.4-7 year | 200 | 274,77 | | | |
| | 3.8-11 year | 119 | 325,30 | | | |
| | 4.12-15 year | 70 | 310,56 | | | |
| | 5.16-19 year | 10 | 243,45 | | | |
| | 6.20 and over | 24 | 341,27 | | | |
| Project Management | 1.0-3 year | 159 | 277,69 | 5 | 9,220 | .101 |
| | 2.4-7 year | 200 | 277,76 | | | |
| | 3.8-11 year | 119 | 318,09 | | | |
| | 4.12-15 year | 70 | 306,76 | | | |
| | 5.16-19 year | 10 | 238,50 | | | |
| | 6.20 and over | 24 | 343,10 | | | |

*p<.05

When the Kruskal Wallis-H Test Results are examined in Table 6, no significant difference was observed in the "Input Management" and "Project Management" dimensions. In the

dimension of "Organizational Culture and Structure", the Mann Whitney U test was applied to the dimension to find out from which group the significant difference occurred between the views of the groups, and the result of the test is shown in Table 7 below.

Table 7. Mann Whitney U test results of the Comparison of Teachers' Perceptions of Managers' Perceptions of Innovation Management Competencies by Professional Seniority (Organizational Culture and Structure)

| Dimension | Seniority | n | MWU | p | Mean rank |
|--------------------------------------|-----------|-----|--------|-------|-----------|
| Organizational Culture and Structure | 0-3 year | 159 | 7731.5 | .009* | 128.63 |
| | 8-11 year | 119 | | | 154.03 |
| Organizational Culture and Structure | 4-7 year | 200 | 9842.0 | .010* | 149.71 |
| | 8-11 year | 119 | | | 177.29 |

When Table 7 is examined, a significant difference was observed between teachers with 0-3 years of seniority and teachers with 8-11 years of seniority in the dimension of "Organizational Culture and Structure" (MWU=7731.5 $p < .05$). A significant difference was observed between teachers with a seniority of 4-7 years and teachers with a seniority of 8-11 years (MWU=9842.0 $p < .05$). Considering the mean rank, The mean rank of teachers with 8-11 years of seniority (177.29) is higher than the mean rank of teachers with 4-7 years of seniority (149.71).

The mean rank of teachers with 8-11 years of seniority (154.03) is higher than the mean of teachers with 0-3 years of seniority (128.63). From this point of view, it can be concluded that teachers whose seniority is between 8-11 years have higher organizational culture/collaboration and awareness levels than teachers who come from behind in terms of seniority. The increase in seniority can be interpreted as a positive effect on their adaptation to the corporate culture, the increase in their bureaucratic socialization, and their ability to understand and empathize with the managers.

Analyzes Based on Age Variable

In order to determine whether there is a significant difference in innovation management according to the age variable in the perceptions of the teachers working in primary and secondary schools regarding the innovation management competencies of their administrators, the average scores of the participants were calculated according to their ages, and one-way analysis of variance was performed to determine whether the difference between the scores was significant. Analysis results are presented in Table 8.

Table 8. Comparison of Teachers' Managers' Perceptions on Innovation Management Competencies by Age Groups

| Dimensions | Age groups | n | \bar{X} | SS | Df | F | p |
|--------------------------------------|---------------|-------|-----------|------|-------|------|-----|
| Input Management | 1."21-30 age" | 237 | 2.96 | 1,09 | 3.578 | .96 | .40 |
| | 2."31-40 age" | 293 | 3.02 | 1,09 | | | |
| | 3."41-50 age" | 43 | 2.85 | 1,08 | | | |
| | 4."51-60 age" | 9 | 3.48 | 1,33 | | | |
| | Levene:.391 | p=.75 | | | | | |
| Innovation Strategy | 1."21-30 age" | 237 | 3.07 | 1,10 | 3.578 | 1.29 | .27 |
| | 2."31-40 age" | 293 | 3.20 | 1,11 | | | |
| | 3."41-50 age" | 43 | 3.05 | 1,16 | | | |
| | 4."51-60 age" | 9 | 3.62 | 1,35 | | | |
| | Levene:.569 | p=.63 | | | | | |
| Organizational Culture and Structure | 1."21-30 age" | 237 | 3.15 | 1,09 | 3.578 | 1.98 | .11 |
| | 2."31-40 age" | 293 | 3.29 | 1,07 | | | |
| | 3."41-50 age" | 43 | 3.19 | 1,16 | | | |
| | 4."51-60 age" | 9 | 3.92 | 0,93 | | | |
| | Levene:.978 | p=.40 | | | | | |
| Project Management | 1."21-30 age" | 237 | 3.13 | 1,09 | 3.578 | 1.51 | .20 |
| | 2."31-40 age" | 293 | 3.19 | 1,02 | | | |
| | 3."41-50 age" | 43 | 3.08 | 1,09 | | | |
| | 4."51-60 age" | 9 | 3.85 | 0,68 | | | |
| | Levene:1.582 | p=.19 | | | | | |

The homogeneity of the variances of the distributions was tested with the Levene's test before determining whether the perceptions of the teachers working in primary and secondary schools regarding the innovation management competencies of their administrators differ significantly according to age groups. As a result, "Input Management" ($L = .759$; $p > .05$), "Innovation Strategy" ($L = .635$; $p > .05$), "Organizational Culture and Structure" ($L = .403$; $p > .05$), and "Project Management" ($L = .193$; $p > .05$) dimensions were found to be homogeneous. Then, the process of determining the difference between the means was started.

In Table 8, the results of the analysis regarding the comparison of the perceptions of the teachers working in primary and secondary schools regarding the innovation management competencies of their administrators by age groups are as follows. "Input Management" [$F(3, 578) = .96$; $p > 0.05$], "Innovation Strategy" [$F(3, 578) = 1.29$; $p > 0.05$], "Organizational Culture and Structure" [$F(3, 578) = 1.98$; $p > 0.05$] and "Project Management" [$F(3, 578) = 1.51$]; it is seen that there is no significant difference between age groups in all sub-dimensions with $p > 0.05$. Ömür's (2014) study supports these findings. Looking at the averages in Table 8, it is seen that in all sub-dimensions, teachers aged 21-30, aged 31-40 and aged 41-50, compared to the teachers aged 51-60, their administrators provide input to innovation, use innovation strategies effectively, create an innovative organization. It can be interpreted that they see them as less competent in managing innovative projects. It can be interpreted that teachers between the ages of 51-60 may have perceived their administrators as very competent in innovation management since they may be more closed to innovation as they approach retirement.

Perceptions of Teachers Working in Primary And Secondary Schools Regarding the Innovation Management Competencies of School Managers

Analyzes Based on the Variable of the Number of Teachers in the School

The mean scores were calculated to determine whether the number of teachers in their schools made a significant difference in the perceptions of the teachers working in primary and secondary schools regarding the innovation management competencies of their administrators.

Table 9. Comparison of Teachers' Managers' Perceptions on Innovation Management Competencies According to the Number of Teachers in the School

| Dimensions | Teacher number | n | \bar{X} | SS | Source of variance | Sum of squares | Df | Mean of squares | F | p | |
|--------------------------------------|----------------|--------------|-----------|------|--------------------|----------------|-----|-----------------|------|-------|--|
| Input Management | 1.0-10 | 45 | 3.33 | 1.20 | Between groups | 13.22 | 4 | 3.30 | 2,76 | .027* | |
| | 2.11-21 | 100 | 3.12 | 1.19 | Within groups | 690.10 | 577 | 1.19 | | | |
| | 3.22-32 | 181 | 2.81 | 1.08 | Total | 703.33 | 581 | | | | |
| | 4.33-43 | 161 | 3.00 | 1.10 | | | | | | | |
| | 5.44 AND OVER | 95 | 3.01 | .90 | | | | | | | |
| | | Levene: 3.98 | p=.003* | | | | | | | | |
| Innovation Strategy | 1.0-10 | 45 | 3.43 | 1.31 | Between groups | 10.32 | 4 | 2.58 | 2,07 | .82 | |
| | 2.11-21 | 100 | 3.30 | 1.14 | Within groups | 716.92 | 577 | 1.24 | | | |
| | 3.22-32 | 181 | 2.99 | 1.05 | Total | 727.25 | 581 | | | | |
| | 433-43 | 161 | 3.15 | 1.14 | | | | | | | |
| | 5.44 AND OVER | 95 | 3.13 | 1.03 | | | | | | | |
| | | Levene: 2.34 | p=.054 | | | | | | | | |
| Organizational Culture and Structure | 1.0-10 | 45 | 3.41 | 1.14 | Between groups | 8.99 | 4 | 2.24 | 1,88 | .111 | |
| | 2.11-21 | 100 | 3.36 | 1.15 | Within groups | 687.06 | 577 | 1.19 | | | |
| | 3.22-32 | 181 | 3.07 | 1.04 | Total | 696.05 | 581 | | | | |
| | 4.33-43 | 161 | 3.31 | 1.10 | | | | | | | |
| | 5.44 AND OVER | 95 | 3.22 | 1.06 | | | | | | | |
| | | Levene: 1.56 | p=.182 | | | | | | | | |
| Project Management | 1.0-10 | 45 | 3.33 | 1.15 | Between groups | 8.19 | 4 | 2.04 | 1,84 | .119 | |
| | 2.11-21 | 100 | 3.34 | 1.09 | Within groups | 640.96 | 577 | 1.11 | | | |
| | 3.22-32 | 181 | 3.02 | .99 | Total | 649.16 | 581 | | | | |
| | 4.33-43 | 161 | 3.19 | 1.10 | | | | | | | |
| | 5.44 AND OVER | 95 | 3.14 | .97 | | | | | | | |
| | | Levene: 2.37 | p=.051 | | | | | | | | |

* p < .05

Before determining whether the perceptions of teachers working in primary and secondary schools regarding the innovation management competencies of their administrators differ significantly according to the number of teachers in the school, the homogeneity of the variances of the distributions was tested with the Levene's test. The variances of the dimensions of "Innovation Strategy" (L= 2.34; p>.05), "Organizational Culture and Structure" (L= 1.56; p>.05), and "Project Management" (L= 2.37; p>.05) was found to be homogeneous. Then, the process of determining the difference between the means was started.

In Table 9, the results of the analysis regarding the comparison of the perceptions of the teachers working in primary and secondary schools regarding the innovation management competencies of their administrators according to the number of teachers in the school were examined. "Input Management" [F(4, 577)=2.76; p<0.05] was found to differ significantly in the dimension. "Innovation Strategy" [F(4, 577)=2.07; p>0.05], "Organizational Culture and Structure" [F(4, 577)=1.98; p>0.05] and "Project Management" [F(4, 577)=1.51; p>0.05] It is seen that the difference in terms of the number of teachers in the sub-dimensions is not significant. Table 10 below shows the results of the Kruskal Wallis H Test regarding the total items that do not show a homogeneous distribution in the dimension of "Input Management" according to the number of teachers in the school, of the perceptions of teachers working in primary and secondary schools regarding the innovation management competencies of their administrators.

Table 10. KWH Test Results of the Comparison of Teachers' Managers' Perceptions on Innovation Management Competencies by the Number of Teachers in the School (Input Management)

| Dimensions | Number of teachers | n | Mean rank | Df | KWH | p |
|------------------|--------------------|-----|-----------|----|-------|-------|
| Input Management | 0-10 | 45 | 349,52 | 4 | 12,69 | .013* |
| | 11-21 | 100 | 314,57 | | | |
| | 22-32 | 181 | 262,66 | | | |
| | 33-43 | 161 | 294,81 | | | |
| | 44 AND OVER | 95 | 289,06 | | | |

* p <.05

When Table 10 is examined, it is seen that there is a significant difference between the views of the groups in this dimension (KWH=12.69). In the "Input Management" dimension, the Mann Whitney U test was applied to the dimension to find out from which group the significant difference occurred between the views of the groups, and the result of the test is shown in Table 11 below.

Table 11. Mann Whitney U test results of the Comparison of the Perceptions of the Managers of Teachers on Innovation Management Competencies by the Number of Teachers in Their Schools (Input Management)

| "Dimension" | "Number of teachers" | n | MWU | p | Mean rank |
|--------------------|----------------------|-----|--------|-------|-----------|
| "Input Management" | 0-10 | 45 | 2905.5 | .003* | 139.43 |
| | 22-32 | 181 | | | 107.05 |
| "Input Management" | 11-21 | 100 | 7540.0 | .020* | 156.10 |
| | 22-32 | 181 | | | 132.66 |
| "Input Management" | 0-10 | 45 | 2905.5 | .042* | 119.43 |
| | 33-43 | 161 | | | 99.05 |
| "Input Management" | 0-10 | 45 | 1640 | .026* | 81.56 |
| | 44 AND OVER | 95 | | | 65.26 |

When Table 11 is examined, in the dimension of "Input Management", a significant difference was observed between the teachers whose number of teachers in their schools is between 0-11 and those whose number is between 22-32 (MWU=2905.5 $p<.05$). A significant difference was observed between the teachers whose number of teachers in their schools was between 11-21 and those who were between 22-32 (MWU=7540.0 $p<.05$). A significant difference was observed between the teachers whose number of teachers in their schools was between 0-10 and those with 33-43 (MWU=2905.5 $p<.05$). A significant difference was observed between teachers with 0-10 teachers in their schools and teachers with 44 or more teachers (MWU=1640 $p<.05$). Considering the mean rank it is seen that the mean rank of teachers with 0-10 teachers (139.43) is higher, while the average rank (107.05) of teachers with 22-32 teachers is low. It is seen that the average rank of teachers with 11-21 teachers is higher (156.10) while the average rank of teachers with 22-32 teachers is low (132.66). While the mean rank (119.43) of the teachers whose number of teachers is between 0-10 is higher, it is seen that the mean rank (99.05) of the teachers whose number of teachers is between 33-43 is low. It is seen that the mean rank of teachers with 0-10 teachers (81.56) is higher, while the average rank (65.26) of teachers with 44 or more teachers is seen to be low. Ömür's (2014) study also supports these findings.

Based on these findings, it can be stated that teachers in schools with a high number of teachers have more negative opinions about the "Input Management" dimension in terms of the competence of their administrators to manage innovation. According to the finding, teachers with a high number of teachers in their schools perceive their administrators to be more inadequate than teachers with a small number of teachers in their schools in terms of trying to find support from the environment for innovations, providing the necessary resources to initiate the innovation process, supplying resources to support the innovation process, and knowing how to use these resources in the innovation management process. In the "Input Management" dimension, the irregularity in the mean rank may be due to the fact that the number of teachers in their schools is higher than the other groups, and the mean rank of this group was observed to be lower.

In other words, the excess number of teachers in schools is thought to be a variable that negatively affects the opinions of teachers about the innovation management competencies of their administrators. The reason for this result is thought to be the negativities such as the lack of organizational trust, inadequacy of communication, and the increase in bureaucracy brought about by the high number of teachers in schools. It is thought that it is normal for teachers to evaluate the innovation management competencies of administrators negatively in such negative situations. As a matter of fact, Ruppel and Harrington (2000; cited in Ömür, 2014) also determined a relationship between trust and innovation in the organization and emphasized that the level of risk taking necessary for innovation is high in organizations with high trust levels.

Analyzes Based on the Variable of the Number of Students in the School

To determine whether the number of students in their schools creates a significant difference in terms of innovation management in the perceptions of the teachers working in primary and secondary schools regarding the innovation management competencies of their administrators, the average scores were calculated.

Table 12. Comparison of Teachers' Managers' Perceptions on Innovation Management Competencies According to the Number of Students in the School

| Dimensions | "Number of students" | n | \bar{X} | SS | Df | F | p |
|--|----------------------|--------|-----------|------|-------|------|-----|
| "Input Management" | 0-300 | 84 | 3.14 | 1.09 | 3.578 | 1,69 | .16 |
| | 301- 500 | 161 | 3.08 | 1.09 | | | |
| | 501-700 | 194 | 2.87 | 1.17 | | | |
| | 701-900 | 143 | 2.96 | .99 | | | |
| | Levene: 2.38 | p=.068 | | | | | |
| "Innovation Strategy" | 0-300 | 84 | 3.26 | 1.18 | 3.578 | 1,62 | .18 |
| | 301- 500 | 161 | 3.26 | 1.02 | | | |
| | 501-700 | 194 | 3.05 | 1.18 | | | |
| | 701-900 | 143 | 3.07 | 1.07 | | | |
| | Levene: 2.04 | p=.106 | | | | | |
| "Organizational Culture and Structure" | 0-300 | 84 | 3.26 | 1.09 | 3.578 | 1,11 | .34 |
| | 301- 500 | 161 | 3.36 | 1.04 | | | |
| | 501-700 | 194 | 3.18 | 1.12 | | | |
| | 701-900 | 143 | 3.15 | 1.09 | | | |
| | Levene: .52 | p=.667 | | | | | |
| "Project management" | 0-300 | 84 | 3.22 | 1.06 | 3.578 | 1,43 | .23 |
| | 301- 500 | 161 | 3.29 | .97 | | | |
| | 501-700 | 194 | 3.11 | 1.11 | | | |
| | 701-900 | 143 | 3.06 | 1.05 | | | |
| | Levene: 1.29 | p=.275 | | | | | |

Before determining whether the perceptions of teachers working in primary and secondary schools regarding the innovation management competencies of their administrators differ significantly according to the number of students in the school, the homogeneity of the variances of the distributions was tested with the Levene's test." (L= 2.048; p>.05), "Organizational Culture and Structure" (L= .523; p>.05), and "Project Management" (L= 1.297; p>.05) dimensions were found to be homogeneous. Then, the process of determining the difference between the means was started.

In Table 12, the results of the analysis regarding the comparison of the perceptions of the teachers working in primary and secondary schools regarding the innovation management competencies of their administrators according to the number of students in the school were examined. "Input Management" [F(3, 578)=1.69; $p>0.05$], "Innovation Strategy" [F(3, 578)=1.62; $p>0.05$], "Organizational Culture and Structure" [F(3, 578)=1.11; $p>0.05$] and "Project Management" [F(3, 578)=1.43; $p>0.05$] It is seen that the difference in all sub-dimensions is not significant.

When the averages are considered, teachers in schools with 0-300, 301-500 and 701-900 students in all sub-dimensions perceive their administrators at "medium" level. Teachers in schools with a score of 501-700 perceive it as "low" in the dimension of "Input Management" and at "moderate" in other dimensions.

Conclusion and Recommendations

This study was conducted with the aim of revealing the level of awareness among teachers working in primary and secondary schools about innovation management skills of their managers and to determine whether the levels whether this perception differs significantly under certain variables.

The opinion of teachers participating in the study on "Perception of competence in management innovation" was determined to correspond to the level of "Moderately agree." It is understood that teachers see their administrators most adequate in the dimension of "Organizational Culture and Structure", "Innovation Strategy" in the second place, "Project Management" in the third place and "Input Management" in the last place.

Similar results were obtained with the research findings of Ömür (2014), Öztürk (2017), Aydoğar (2018) and Demiraçan (2019), Dinçman (2020). In the research conducted by Karataş, Gök and Özçetin (2015), Görgel (2018), Göl and Bülbül (2012), and Argon, İsmetoğlu and İşeri (2014), it is seen that teachers' opinions on "Innovation Management Competence Perception" and all sub-dimensions correspond to the level of "Very Agree".

Teachers provide their managers with the necessary information, tools, people, environment, etc. for innovation studies. While they perceive it as less sufficient in providing inputs, they perceive it as more sufficient in creating an atmosphere of innovation in the school, adoption, and diffusion of innovations. This finding also shows that the competencies of school administrators should be developed in the dimension of input management. It is thought that the moderate level of teachers views on innovation management competencies of the administrators working in primary and secondary schools is a result of the school administrators inability to take much action on innovation. It can be interpreted that the managers may have abstained from the point of risk taking and innovation management.

When the analyzes made to determine whether the perceptions of teachers regarding innovation management competencies of primary and secondary school administrators differ according to their branches, it was determined that there was no significant difference

between the groups in any dimension. According to this result, it was concluded that the branch variable is not a variable that affects "teacher's perceptions of school administrators' innovation management" competencies. However, when the averages of the scores are considered, it is concluded that the classroom teachers consider their managers more competent in innovation management than the branch teachers. The studies of Göl and Bülbül (2012) and Karataş, Gök and Özçetin (2015) also support this result. Dinçman (2020), on the other hand, reached unparalleled results. When taken into consideration, it can be interpreted that primary school teachers see their administrators more competent in innovation management than branch teachers, and they perceive them as innovative leaders.

Again, when the results of the test conducted to determine whether the perceptions of primary and secondary school teachers regarding innovation management competencies of their administrators differ according to professional seniority, a significant difference was found in the dimensions of "Innovation strategy" and "Organizational Culture and Structure". In the dimension of "Innovation Strategy", it is seen that the differences between "teachers with 4-7 years of seniority and teachers with 8-11 years of seniority" are significant. If we look at the averages in this dimension, the averages of teachers with 8-11 years of seniority are higher than the averages of teachers with 4-7 years of seniority. Teachers with 8-11 years of seniority consider their administrators more competent in choosing and using appropriate strategies for successful innovations than teachers with 4-7 years of seniority. It can be interpreted that teachers with 8-11 years of experience perceive their administrators as innovative leaders who prioritize innovations that will contribute to the development of the school, who are open in communication during the innovation process, who ensure the efficient use of school resources, and who direct the staff. The reason for this situation can be considered as the fact that teachers with 8-11 years of seniority are in more communication with the administrators. It can be interpreted that teachers with 8-11 years of seniority may perceive their administrators as more competent since they may be more open to innovation in choosing and using appropriate strategies. Since teachers with less seniority focus more on understanding the functioning of the school, it can be thought that they may experience some difficulties in terms of bureaucratic socialization in terms of understanding the institution. In the dimension of "Organizational Culture and Structure", a significant difference was observed between teachers with 0-3 years of seniority and teachers with 8-11 years of seniority, and between teachers with 4-7 years of seniority and teachers with 8-11 years of seniority. Considering the mean rank; the average rank of teachers with 8-11 years of seniority is higher than the average of teachers whose seniority is between 4-7 years and 0-3 years of seniority. From this point of view, it can be concluded that teachers whose seniority is between 8-11 years have higher organizational culture/collaboration and awareness levels than teachers who come from behind in terms of seniority. The increase in seniority can be interpreted as a positive effect on their adaptation to the corporate culture, the increase in their bureaucratic socialization, and their ability to understand and empathize with the managers.

Perceptions of Teachers Working in Primary And Secondary Schools Regarding the Innovation Management Competencies of School Managers

In Göl and Bülbül's (2012) study, teachers with 21-30 years of professional seniority see their administrators as more competent in all dimensions. Ömür (2014), Argon et al., (2014) found that there was no significant difference in terms of innovation management in the professional seniority variable. It is thought that the difference between these results is due to the universe difference.

In the study, according to the results obtained from the age variable, no statistically significant difference was found in any of the sub-factors. Accordingly, it was concluded that age is not a variable that affects teacher's perceptions of school administrators' innovation management. When the averages are examined, it can be interpreted that teachers aged 51-60 see their managers as more competent in providing input to innovation, using innovation strategies effectively, creating an innovative organization and managing innovative projects in all sub-dimensions. It can be interpreted that teachers between the ages of 51-60 may have perceived their administrators as very competent in innovation management since they may be more closed to innovation as they approach retirement.

In the study of Göl and Bülbül (2012), "it was concluded that teachers' perceptions of the innovation management competencies of administrators differ according to their ages, and teachers between the ages of 20-35 see their administrators as more competent in innovation management." In the dimension of "Organizational Culture and Structure", it has been determined that teachers between the ages of 41-60 have a more innovative perception than teachers between the ages of 20-40.

Teachers' views on innovation management skills by administrators were also examined according to the number of teachers' variable. According to these results, a significant difference was found in the "Input Management" sub-dimension of the innovation management scale. The said difference is between schools with 0-10 teachers and schools with 22-32 teachers, schools with 11-21 teachers and schools with 22-32 teachers, schools with 0-10 teachers and schools with 33-43 teachers. It was determined among schools with teachers between 0-10 and schools with 44 or more teachers. When the averages of the groups are considered, the averages of the groups with a low number of teachers are higher than the averages of the groups with a large number of teachers. Based on these findings, it can be stated that teachers in schools with a high number of teachers have more negative views on the dimension of input management in terms of the competence of their administrators to manage innovation. According to the finding, teachers who are more in number in their schools perceive their administrators to be more inadequate in terms of trying to find support from the environment for innovations, providing the necessary resources to initiate the innovation process, supplying resources to support the innovation process, and knowing how to use these resources in the innovation management process. In other words, the excess number of teachers in schools is thought to be a variable that negatively affects the opinions of teachers about the innovation management competencies of their administrators. The reason for this result is thought to be the negativities such as the lack of organizational trust, inadequacy of communication, and the increase in bureaucracy brought about by the high

number of teachers in schools. It is thought that it is normal for teachers to evaluate the innovation management competencies of administrators negatively in such negative situations. As a matter of fact, Ruppel and Harrington (2000; cited in: Ömür, 2014) also determined a relationship between trust and innovation in the organization and emphasized that the level of risk taking necessary for innovation is high in organizations with high trust levels.

When "the teacher's opinions on the innovation management skills of the administrators" were examined according to the number of students, no significant difference was found in all sub-dimensions of the innovation management scale according to the results obtained. When the averages are considered, teachers in schools with 0-300, 301-500 and 701-900 students in all sub-dimensions perceive their administrators at "medium" level. Teachers in schools with a score of 501-700 perceive it as "low" in the dimension of "Input Management" and at "moderate" in other dimensions.

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