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Examining Innovation Needs of Primary Schools: *Teachers' Perceptions*

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Abstract

Education is an essential element for a country as it helps a nation move forward. In this process, when educational system does not function properly, it needs innovation. Main purpose of this study is to determine innovation needs of primary schools according to teachers' views. This study employed a survey method. Participants were 172 teachers chosen randomly from primary schools in İstanbul. The data were collected with "Determining Needs of Innovation Scale" developed by the researchers. Cornbrash Alpha of the scale was .82. The data were analyzed with arithmetic means, t-test and one-way ANOVA. Results reveal that teachers feel innovation need at "moderate" level in all sub dimensions.

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Keywords: Primary school, teachers, innovation, and innovation need

1. Introduction

Education is one of the basic elements of a nation as it plays important roles in people's lives. In this regard, when educational system does not work or meet basic requirements of any society, it must be reformed (Erdoğan, 1995; Fagerlind & Saga, 1989). Therefore, administrators must keep up with the latest developments, innovations and adapt them into its structure. However, it should be done within a plan.

As far as the Turkish educational system is concerned, no matter what their political beliefs and views are, it is considered that educational innovation is inevitable for the system. However, they may sometimes fall behind real needs of the system (Ekinci, 1996). For that reason, many reform, innovation and change initiatives do not meet real life problems. Indeed, they should eliminate problems encountered in the system and find solutions to them.

These movements are mostly derived from either external or internal forces. However, one thing is clear that educational field requires some changes in some fields like school administration, training administrators and teachers, educational technology, educational finance, program and instruction and human relations and democracy (Başaran, 1993; Bursalıoğlu, 1987; Hesapçıoğlu, 1994; Kaya, 1979; Varış, 1988).

As the world is changing rapidly, educational institutions cannot be indifferent to this movement. However, educational organizations are considered that they are clumsy and traditional organizations. By looking at this point of view, reforms and innovation initiatives are inevitable for these organizations. This study mainly sought the answer to the following questions: *According to teachers' views, what is the level of innovation need at primary*

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schools? What are teachers' views concerning innovation needs of primary schools? Are there any significant differences between their views concerning gender and professional experience?

2. Methodology

This research employed a survey method which is used to reach a decision on the population which consists many in number. In this method, it is possible to get a group or a sample which is considered to represent the general population (Karasar, 2004).

2.1 Population and Sampling

Population of this study is the teachers who work in Bağcılar and Esenler townships in 2010-2011 academic year. The sampling comprised of 172 teachers chosen randomly with unbiased sampling.

2.2 Data collection Instrument

The data were collected with a scale developed by the researches themselves. The scale had two parts. In the first part, demographic variables were collected and in the second part there were items 25 items concerning innovation needs of primary schools. Responses were indicated on a 5-point Likert scale ranging from Not at all (1) to Very much (5). As a result of reliability and validity process, it was piloted on 90 teachers. Cronbach Alpha was found as 0.88. Exploratory Factor Analysis (EFA) was employed to obtain evident related to construct validity of the scale. Before the factor analysis process, z values (between -3 and +3) and distances were checked. In the data set, as values of 5 participants were not in the limits, they were considered as extreme edges and removed from the data set. Therefore, analysis processes were carried on with 172 participants. It was commenced with 43 items. According to the analysis made here, factor load value was accepted as 0.30 and the items that had values below it were removed from the scale. Higher values in one item and lower values in other factors were taken into consideration secondly and items that presented higher factor loads in multi factor structure was accepted as overlapping items. In order to test data collecting structure for EFA considering sampling size, another criterion is Kaiser-Meyer-Olkin Test (KMO) results. For these data, the KMO results are calculated as 0.77, ($p< 0.01$). KMO values between .50 and .70 are mediocre, .70 and .80 are good, .80 and .90 are great and over .90 are superb (Hutcheson & Sofroniou, 1999, p. 224). The data were considered as appropriate for factor analysis according to the analysis.

Bartlett's (1954) spherical test is a notoriously sensitive test of the hypothesis that the correlations in a correlation matrix are zero. The test is available in SPSS factor but because of its sensitivity and dependence on sampling size, it is likely to be significant with samples of substantial size even if correlations are very low. Therefore, use of the test is recommended only if there are fewer than, say, five cases per variable (Tabachnick & Fidell; 2007, p. 614). For these data, Bartlett's tests are highly significant for EFA ($\chi 2= 1452, 452; p<0.01$).

As a result of the analysis, it was discovered that there are 5 factors of which Eigen value is higher than 1. It was understood that these 5 factors explained 53 % of total variance variance and variance of the scale. For factor design of the scale, principal component analysis and factor rotation, maximum varimax was chosen as orthogonal rotation.

As a result of this process, it was discovered that the scale had 25 items below 5 factors. Factor loads of the items in factor 1 are between 0.57 and 0,77; in the second between 0,52- 0,78, in the third between 0,69-0,78; in the fourth between 0,41-0,84 and finally in the fifth factor between 0,52 -0,73. Consequently, it can be concluded that construct validity was proved. For reliability of the data collected with the scale Cronbach Alpha Reliability Coefficient was found as 0,82 for the whole scale. Apart from that Cronbach value was calculated for all sub dimensions. According to that, it is 0,81 for the first factor (*Innovation Need Toward School Administration*); 0,75 for the second (*Innovation Need Toward Human Relations*); it is 0,76 for the third (*Innovation Need Toward Programs*); it is 0,71 for the 4th (*Innovation Need Toward Educational Technology*) and it is 0,66 for the fifth sub