

Developing a Scale for Schools as Learning Organizations towards Quality Culture

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ABSTRACT Being open to learning understanding is essential for increasing service quality. The study aims to develop a scale that measures whether secondary school institutions show the features of a learning organization. 297 teachers participated in this research process. Data was analyzed by using statistical analysis. The factor loads for the 30 questions in scale have been found satisfactory, and construct validity was ensured without adding or omitting questions. 'Duties and responsibilities', 'dialogue, sharing and teamwork', 'development, research and continuous learning', and 'organization learning obstacles' are the subdimensions as a result of the explanatory factor analysis. This scale will play a significant role in educational institutions that are trying to become learning organizations.

INTRODUCTION

Within the development and welfare of the society, dynamic and social learning of the all units of the society is crucial. In terms of anthropological and social improvements of the society, this development relies on education and the dynamic development of the schools. As schools are the small units of the society and also path to diffuse improvements to all system, schools need to capture learning culture in order to increase quality (Spillane and Hopkins 2013).

In a digital age where information is regarded as a most important power, learning can be considered as an effective process of collecting, developing and transferring information. Individuals who can learn, organizations with a learning culture, and systems that encourage learning have been the operating forces. According to Alipour and Karimi (2011), organizations need to focus on using information and continuous learning in order to increase their performance.

In an information society, schools as organizations should not be only teaching institutions, but rather, learning institutions. In such societies, active learning is considered as a principal value. Schools' adaptation to these developments is only possible by becoming learning organizations (Coppieters 2005). The sources of the dynamics of a sustainable development streak of schools improving themselves in modern education settings cannot be the orders of a

central authority, or the directives of the school administrators (Banoglu and Peker 2012). In this regard, it can be said that environmental conditions force schools to adopt a learning organizational structure (Lyle 2012). According to the literature, learning schools follow the processes around them, improve their goals, establish effective teaching and learning settings, encourage risk-taking and entrepreneurship, conduct continuous analysis in all aspects that influence schoolwork, and create opportunities to sustain the professional development of the school (Harkins and Roth 2008; Jokic et al. 2012).

A learning organization is an institution, which has the skills to change behavior in order to form new information and understanding through the creation, gathering and transfer of information based on a continuous learning cycle. Organizations that could shed light on the future are those with learning capacity and enthusiasm, and are able to form and use valid and reliable information. It is essential for the staff of an institution to be open to innovation and learning, in order to increase service quality, and also bring the significance of being a learning organization to foreground. Similar to the growing importance of being learning organizations in all fields and institutions, it is also gaining importance in educational institutions in terms of reforming information and adapting to change (Volante 2010). Especially, gaining awareness of the characteristics of learning organizations (as part of increasing service quality and the restructur-

ing of primary and secondary schools, which are the foundations of future) can result in dynamism and innovation, as well as increased motivation and enthusiasm in the mentioned institutions (Tasargöl 2013).

Organizational Learning

Organizational learning is the continual renewal of the organization through conscious use of learning processes at individual, group and organizational levels, to meet the needs and demands of the organizational stakeholders (Cengiz 2006). Organizational learning is information processing that leads to changes in the potential behavior series (Göztepe 2009: 49). Although, organizational learning originated in business life around the middle of the 1970s, and was defined as “catching mistakes and correcting”, due to the differentiations through time, it was later seen as a very important factor that closely influences all organizations. The reason behind this is that organizations should continuously learn new ways in order to survive. Change leads to a need for development and learning. It is revealed that organizations should have a strong inclination towards being a learning organization in order to experience this continuously (Bingöl 2005).

Schools as Learning Organizations

Learning schools are schools where students do not create active “teaching”, but involve “learning” activities. Learning schools try to embrace changes and internal restructuring within the framework of the system it is in. There is no difference between teachers and learners in learning schools. Everyone from the school administrator to the cleaner, from students to parents is a learner. Learning takes place at individual, team and business levels. Schools manage to know how to catch up with change, innovating themselves and being current through learning (Töremen 2013).

Learning schools always tries to know themselves, benefit from experiences, adapt to internal and external environmental factors, become independent by maintaining income higher than costs, and correct and improve themselves by getting continuous feedback from production and outcome stages (Basaran 2007).

In society, schools as educational organizations should not only be teaching institutions, but also become learning institutions. In this respect, schools are the dynamic source of anthropological and sociological developments within the society. This comes to the forefront in societies as principal values such as learn by experience, learning how to learn, educating oneself, and lifelong learning. Schools’ adaptations to these developments will be in balance with their speed of learning how to become a learning organization (Töremen 2001). The sources of the dynamics of a sustainable development streak of schools improving themselves in modern education settings are not the orders of a central authority, or directives of the school administrators. According to Senge et al. (2007), the only acceptable way to develop for learning schools is to spread the understanding, which places learning at the center (Banoglu and Peker 2012).

Objectives of the Study

In regards to learning organizations the following studies have been conducted on specific aspects: Sanal (2009) on views of academic staff working at Physical Education and Sport Higher Schools toward learning organizations, Bal (2011) worked on perceptions of school administrators and teachers working in primary schools regarding schools as learning organizations, and Alp (2007) worked on perceptions of primary school teachers’ perceptions regarding learning organizational culture. While there are a few studies on describing perceptions regarding schools as learning organizations available in the literature, there aren’t any studies conducted within the context of Turkish Republic of Northern Cyprus.

Regarding the literature, it is seen that schools need to be learning organizations in enhancing quality culture. In this respect, this research study aims to develop a scale that measures whether secondary schools show learning organization characteristics or not, based on secondary school teachers’ perspectives. Therefore, this research study is significant in underlining the performance criteria of being a learning organization, by providing insights on developing a scale in a North Cyprus education context. It is essential to give insights on learning organizations as schools for the quality culture.

METHODOLOGY

The research has a quantitative nature through using the scale. It has the nature of numbers for indicating meanings, and examines the aim of the research. In this respect, the survey approach in this research relies on developing a scale, and applying the usability of the scale (Cohen et al. 2000).

Study Group

The population of this study is teachers working in secondary schools throughout the following cities of the Turkish Republic of Northern Cyprus during the 2014-2015 academic years, namely, Nicosia, Kyrenia, Famagusta, Güzelyurt and Iskele.

A stratified sampling method is used to reach all members of the population due to time, financial and control limitations. The sample is a small group that is chosen based on certain rules, and is considered to be valid and reliable for representing the population (Karasar 2005: 110-111).

For this study, 297 teachers were interviewed through stratified random sampling. They were chosen out of 1,314 people population at ninety-five percent confidence interval, with five percent sampling error. Stratified sampling is used when there are substratum or subunits in the population. The important point here is to work on the population starting from the substratum within the population (Yildirim and Simsek 2005: 105).

Among from the participants, 62.29 percent are female and 37.71 percent of them are male teachers. 17.85 percent of the teachers are 30 years old or younger, 44.44 percent are in the 31-40 age range, and 37.71 percent of them are 41 years old or above. 50.84 percent of the participants graduated from education faculties, 23.23 percent graduated from undergraduate programs outside the education faculties, and 25.93 percent of them have postgraduate degrees. When the undergraduate areas of the participants are reviewed, it is seen that 30.30 percent of them graduated from educational sciences departments, 26.60 percent of them graduated from science departments, 10.10 percent of them graduated from linguistics departments, and 8.75 percent of them graduated from physical education or arts departments. 34.68 percent of the participating teachers are teaching in the field of

science, 41.08 percent of them are teaching in the social sciences field, 11.11 percent of them are teaching in the linguistics field, and 13.13 percent of them are teaching arts, music or physical education. The level of experience that the teachers have ranges from 5.39 percent of them having 3 years or less, 15.49 percent of them having 3-6 years, 17.51 percent of them having 11-15 years, and 18.52 percent of them having 16 years or more. When the working years of the teachers at their current schools were examined, it was found that 9.43 percent of them are teaching in the same school for 3 years or less, 16.16 percent of them have been teaching there between 3-6 years, 28.96 percent of them have been teaching between 7-10 years, 40.07 percent of them have been teaching between 11-15 years, and 5.39 percent of them have been teaching in the same school for 16 years or more.

Process of Data Collection

Upon the finalization of the data collection tools, the necessary permissions and approvals were requested from the TRNC Ministry of National Education (Youth and Sports Primary Education Department), in order to conduct the survey with the primary school teachers within the population of the study. The implementation of the data collection tool was done by the researchers in person, and all primary schools, kindergartens, and special education schools within the Guzelyurt area were reached. The questionnaires were distributed to, and collected from the schools by the researchers. The data was collected in the spring semester of the 2014-2015 academic year.

Data Collection Tool

The Personal Information Form developed by the researchers, and the Schools as Learning Organizations Scale, were used in this study as data collection tools. Detailed information regarding the data collection tools can be found below. The Personal Information Form developed by the researchers consists of demographic questions about the participants, as well as questions about their professional features.

The draft form of the "Schools as Learning Organizations Scale" (developed by the researcher) was used to measure the perceptions of teachers regarding learning organizations. The

Scale consists of a total of 30 statements, combining 20 positive and 10 negative questions. The statements numbered as 2, 13, 15, 20, 21, 22, 23, 24, 26 and 30 are negative, and the rest are positive statements. The positive statements in the scale have been rated as “Strongly Disagree: 1” and “Strongly Agree: 7” while the negative statements have been rated in the opposite way from 7 to 1. The scale involves 4 sub-dimensions of “roles and responsibilities”, “dialogue, sharing and teamwork”, “development, research and continuous learning”, and “organizational learning obstacles”. The high score gathered from the overall scale represents the positive attitude towards multicultural education, and the low score represents the negative attitude.

Analysis of Data

The data collected from the question forms was transferred into an electronic setting and were analyzed through the Statistical Package for the Social Sciences (SPSS) 20.0 software. Frequency analysis was used in order to determine the demographic features (gender, age range) of the participating teachers and their responses to the statements in the multicultural education scale. Additionally, descriptive statistics (mean and standard deviation) of the teachers’ scores from the statements of the multicultural education scale have also been calculated.

The Kaiser-Meyer-Olkin (KMO) and Bartlett Sphericity tests were implemented on the data set in order to ensure the construct validity of the scale before conducting factor analysis. Exploratory factor analysis was done through a main component analysis method, and varimax rotation, in order to ensure the validity of the scale.

FINDINGS

Developing Scale Phase I: Content Validity

The researchers reviewed the literature at the scale development stage and formed 40 questions inspired by the scale developed by Harun Yildiz and Sedat Yumusak (2001) from Watkins and Marsick’s (1997) “Learning Organization Dimensions Survey”, and Toremén’s (1999) “Learning School Survey”, along with the statements from a book on learning schools written by Toremén (2011). 10 questions were removed from the question pool based on the feedback

from the experts, and a scale with 30 statements was finalized. It was also concluded that the prepared scale was sufficient for measuring the perceptions of teachers towards learning organizations after implementing the scale as a pilot study to 40 people, and asking them to express the questions that they do not understand, or have difficulty in responding to.

Developing Scale Phase II: Construct Validity and Factors

Factor analysis was used to ensure the construct validity of the Schools as Learning Organizations Scale.

Before conducting factor analysis, the Kaiser-Meyer-Olkin (KMO) and Bartlett Sphericity tests were implemented in order to determine whether the chosen sample was valid for factor analysis. The Kaiser-Meyer-Olkin sample measurement value of the scale is 0.92. The chosen sample was not considered to be appropriate for factor analysis due to the high KMO coefficient value. The KMO test is a number related to the appropriateness of the sample size. As the KMO coefficient gets closer to 1, the data is accepted as appropriate for analysis, and as it is 1, it represents a perfect harmony. This result can be accepted as sufficient based on opinion from experts and the literature (Büyüköztürk 2006). Additionally, the result of the Bartlett Sphericity test was meaningful. These findings showed that the scale was appropriate for factor analysis.

The validity of the scale was tested through a principal component analysis method, and varimax rotation. When the factor analysis results of the scale are reviewed, it can be seen that the 30-statement scale is distributed under 4 sub-dimensions, and that the sub-dimensions explain the 64.03 percent of the total variation. The factor loads of the 30 statements in the scale were considered as sufficient, and construct validity was ensured without adding or omitting any items (Table 1). The sub-dimensions of the scale in light of these findings are as showed in Table 2.

Developing Scale Phase III: Reliability

An internal consistency test was implemented for the reliability of the scale, and the results of the reliability analysis revealed the Cronbach alpha coefficient of the scale as 0.77. The Cron-

Table 1: Factor loads of the statements in the schools as learning organizations scale

	<i>Factor loads</i>
<i>Roles and Responsibilities</i>	
2 - I only fulfill the duty I should do within the legal framework.	0.54
13 - I regard being a participant and learner when necessary while fulfilling my duties.	0.65
14 - I do not avoid taking responsibility about education in my duty.	0.77
18 - I make an effort to help the institution where I work and am responsible for achieving its goals.	0.80
9 - I take risks to improve the quality of education.	0.76
<i>Dialogue, Sharing and Team Work</i>	
1 - I pay more attention to team work than individual work.	0.80
3 - I like sharing my knowledge with my colleagues.	0.58
4 - I listen to criticism carefully and take it seriously.	0.62
7 - The success of our institution depends on the cooperation between our colleagues.	0.61
12 - I try to benefit from my colleagues and share my knowledge.	0.64
17 - I often exchange ideas with my colleagues.	0.72
<i>Development, Research and Continuous Learning</i>	
5 - I improve myself through observation.	0.87
6 - I follow the studies related to my subject field.	-0.84
8 - I improve myself with personal research.	0.66
10 - I improve myself with courses and conferences.	0.68
11 - I use the new instructional technologies efficiently in my profession.	0.60
15 - I do not have a systematic working plan to fulfill my duty.	0.69
16 - I try to adapt to innovations and change.	0.75
19 - I try to utilize learning opportunities.	0.61
<i>Organizational Learning Obstacles</i>	
20 - I am afraid that I will look weak and inadequate if I voice my doubts related to the works while fulfilling my duties.	0.50
2 - The problems and their solutions in education institutions cannot be foreseen.	0.52
22 - The lack of resources limits my studies.	0.61
23 - The lack of rewarding my learning and development efforts demotivates me.	0.58
24 - Daily routines prevent me from making innovations while fulfilling my duties.	0.57
25 - Our problems do not originate from others but from our own practices.	0.50
26 - The employees in education institutions do not take risks related to education.	0.59
27 - The mistakes are handled understandably and lessons are learnt from them.	0.52
28 - The problems faced in my institutions are not overlooked, everyone's contribution is asked for solutions.	0.74
29 - Managers and teachers do not see themselves as perfect but they try to find the perfect.	0.77
30 - Misuse of resources prevents learning processes in education institutions.	0.72

Table 2: Sub-dimensions of schools as learning organisations scale

<i>Sub-dimension</i>	<i>Questions</i>
Roles and responsibilities	Q2, Q13, Q14, Q18, Q9
Dialogue, sharing and team work	Q1, Q3, Q4, Q7, Q12, Q17
Development, research and continuous learning	Q5, Q6, Q8, Q10, Q11, Q15, Q16, Q19
Organizational learning obstacles	Q20, Q21, Q22, Q23, Q24, Q25, Q26, Q27, Q28, Q29, Q30

bach alpha coefficients of the scale are as follows: 0.73 for the roles and responsibilities sub-dimension, 0.76 for the dialogue, sharing and teamwork sub-dimension, 0.79 for the development, research and continuous learning sub-dimension, and 0.77 for the organizational learning obstacles sub-dimension.

DISCUSSION

A learning organization is a place where people explore how they create and how they can change their own truths (Senge 2013). As can be seen, different scholars put forward concepts such as “continuous learning”, “information pro-

cessing that leads to change”, or “exploring change”, while defining organizational learning. This situation enables transformation along with change. In today’s context, schools are the key places to adapt themselves to becoming a learning organization. Therefore, the results of the study aided the development of a scale measuring whether secondary schools show learning organization characteristics based on the perspectives of secondary school teachers.

At the development stage of the Schools as Learning Organizations Scale, the questions in the statement pool (which was formed based on the literature review) were introduced to expert opinions within scope validity, and they have been reorganized based on expert feedback.

The results of the exploratory factor analysis revealed that the scale has four subdimensions, namely, “roles and responsibilities”, “dialogue, sharing and teamwork”, “development, research and continuous learning”, and “organizational learning obstacles”. It was also found that 64.03 percent of the total variation is explained. Moreover, according to the internal consistency test results, the Cronbach alpha values of the scale in general, and the subdimensions of the scale range between 0.73 and 0.77. Based on this, the 30-item Schools as Learning Organizations Scale can determine whether secondary schools show learning organization characteristics, and is a valid and reliable scale that will contribute to the literature. Learning schools aim to create a ‘learning together’ discipline. This is based on forming a common vision and personal skills discipline, but common vision and skills are not sufficient. The key learning unit in organizations is the “individuals who need each other for the action”. Learning schools are the schools that can keep this need alive and guide the administrator, teacher and staff in the correct way. In any future studies, the performance of secondary schools as being learning organizations can be examined by using both qualitative and quantitative research designs. As this study points out how performance measurement is crucial for the learning organizations as schools, it further provides a ground to think on anthropological and sociological developments within the system for the welfare of the society.

CONCLUSION

Once the available literature is reviewed, it is seen that teachers as stakeholders in schools

have positive attitudes towards the concept of learning organization. Also reported that stakeholders share partly positive and partly negative approaches towards learning organization. Relevant studies have mostly used measurement scales regarding learning organizations (business administration, non-governmental organizations).

The obstacles for schools becoming learning organizations have not been touched upon in the learning school scale developed. This scale that is developed towards educational institutions as learning organizations will contribute to the available literature and play a significant role in educational institutions becoming learning organizations.

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