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Schools' Readiness towards Change

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ABSTRACT This paper reports the results of a confirmatory analysis of the Readiness Towards Change Scale (RTC), which uses a four-factor structure to assess schools' readiness towards change. Moreover, it investigates schools' readiness towards change in four dimensions and the effect of teachers' teaching experience and gender on each dimension. A survey method was used because it can describe a large group of people's opinions about a topic or issue. To begin, the four-factor structure of the 5-point Likert scale used in the RTC was confirmed. Data were collected from teachers (N =257) in different fields. To answer the research questions, a multivariate analysis of variance (MANOVA) were conducted, and the findings confirmed the four-factor structure of the scale. Items with factor loadings less than .40 were deleted and were not considered in the confirmatory factor analysis (CFA). The model fit indices yielded a good fit to the four-factor structured model (comparative fit index (CFI) = .89; root mean square error of approximation (RMSEA)=.07; adjusted goodness-of-fit index (AGFI)=.90; standardised root mean square residual (SRMR)=.03). The findings of MANOVA showed that gender and teaching experience did not have a statistically significant effect on readiness towards change. Finally, a descriptive analysis was used to examine the readiness towards change displayed by teachers, administrators, school infrastructure, and parents.

INTRODUCTION

To increase the effectiveness and quality of education and meet the needs of the contemporary age, various changes have been implemented (Hesapcioglu 2003). These efforts towards change have been called 'reconstruction', 'educational reform', 'educational development', or 'restructuring'. In the Turkish educational system, such changes can be listed as (i) increasing the length of education from two years to four years in educational institutions to train teacher candidates, (ii)implementing a 'pass the course' system instead of a system in which students pass based on their total GPA, and (iii) increasing elementary education from five years to eight years and then reducing primary education from five years to four years and naming the other four-year period 'middle school education' (Kaptan 2001; Toklucu 2001; Ministry of National Education (MNE) 2013).

One of the most criticised aspects of the Turkish education system is that policy makers and politicians can change it or implement another one without evaluating the effectiveness of the current system. Indeed, instead of evaluating the needs and deficiencies, the policy makers tend to change the whole system's top-down decision-making process. Their selection of showy and easy changes instead of those addressing

long-felt needs, top-down decision making, and perception that 'I did it; therefore, it is the best' leads to a waste of time and money, and the changes may not yield the desired outcomes (Ozdemir 1995; Cafoglu 1996; Bursalioglu 2000). Failure to comply with the principles of change management and a lack of change management skills could be evaluated as unsuccessful and ineffective changes in education (Tanriogen 1995; Karip 1996; Erdogan 2005).

According to Karip (1996), there are insufficient studies on the factors that lead to successful changes or readiness to plan change in Turkey. Unsuccessful educational reform efforts made in the recent past might lead to prejudice towards new ones and resistance to change (Fullan 1993 as cited in Karip 1996). Thus, the issue of how to manage change in schools and the education system is open to research, and experts strongly advise conducting research on change implementation before changes are made (Alic 1990; Ozdemir 1995; Tanriogen 1995; Celikten 2000; Erdogan 2005).

Huberman (1973) underlined three important components of change in education. The first is hardware, which refers to instructional technologies, new laboratories, and books. The second is software, which means the curriculum and curriculum content. The third is interpersonal relations among staff such as teachers and princi-

pals, and students. This paper discusses the third component, as the aim is to determine the readiness towards change displayed by teachers, school administrators, parents, and school infrastructure.

Readiness towards change, innovation management, and its relations has received more attraction in schools, especially within the last 10 years in Turkey (Tas 2007; Ozkan 2009; Gulsen and Gokyer 2010; Titrek and Zafer-Gunes 2011; Bulbul 2012; Gol and Bulbul 2013; Polatcan and Titrek 2013). However, there is still a lack of comprehensive studies on the level of innovation and readiness towards change in Turkish schools.

METHODOLOGY

A survey was designed to gather data on schools' readiness towards change. A survey method was employed because it is advantageous in defining the characteristics of a population (Fraenkel and Wallen 2003). The survey comprised 50 items rated on a 5-point Likert scale. The participants were teachers from different teaching specialisations. The sample was determined by randomly selecting elementary schools from a list of those located in the centre of Usak city.

Participants

The study population was teachers working in Usak city, Turkey. The participants were elementary school teachers working in five different districts of Usak and the town centre of Usak city; they represented 10 different teaching fields. The survey data were collected during an in-service teacher education program in 2013. In total, 132 female (51.4%) and 125 (48.6%) male teachers participated in the study voluntarily (Table 1). The number of teachers in each teaching field was as follows: 101 (39.3%) classroom; 32 (12.5%) Turkish; 25 (9.7%) mathematics; 25 (9.7%) English; 19 (7.4%) science and technology; 17 (6.6%) social studies; 13 (5.1%) religions,

culture, and moral knowledge; 11 (4.3%) visual arts; 11 (4.3%) music; and 3 (1.2%) physical education. They had an average of 11.52 years of teaching experience (SD=1.51).

Data Collection Tool

The Readiness Towards Change Scale (RTC) was developed by the first author. It consists of two parts, namely, a demographic information section and the readiness towards change questionnaire that contains 50 items, each rated on a 5-point Likert scale. The results of confirmatory factor analysis (CFA) showed that 12 items were not loaded to the factor structure above .40; these items were deleted.

Data Analysis

Since the scale was used in an unpublished Master's dissertation supervised by the author, exploratory factor analysis was not run. For this reason, CFA was conducted to confirm the factor structure of the scale. The data were collected in an in-service teacher training program in the spring term of the 2012-2013 academic year. CFA was performed to assess the four-factor structure of the RTC by means of AMOS 16.0 software. SPSS version 15.0 was used to calculate Cronbach's alpha values to examine the internal consistency of the instrument subscales. Additionally, descriptive statistics and inferential statistics (multivariate analysis of variance; MANOVA) were used after the assumptions of MANOVA were checked with SPSS 15.0 version.

Results of Confirmatory Factor Analysis

An examination of factor loadings over .30 suggested each scale loaded on a single factor. Shevlin and Miles (1998) identified three levels of factor loadings for statistical analysis: low (.30), medium (.50), and high (.70). The results of CFA showed some statistically unacceptable fac-

Table 1: The teachers' gender and length of teaching experience (N=257)

Teaching experience (years)										
Gender	0-4	5-9	10-14	15–19	20-24	25 and more				
Female	21	29	20	26	36	-	132			
Male	33	43	20	11	17	1	125			
Total	54	72	40	37	53	1	257			

tor loadings, and the items with these loadings were deleted. The deleted items' factor loading in CFA ranged from .16 to .36. In order to reach more reliable results, .40 was determined as the minimum factor loading, as Velicer and Fava (1998) suggested. In the RTC, after 12 items were deleted because of low factor loading, the lowest and highest factor loadings were .42 and .86, respectively.

As for goodness-of-fit indices, the following criteria were used: a comparative fit index (CFI) of .90 and higher, adjusted goodness-of-fit index (AGFI) of .90 and higher, root mean square error of approximation (RMSEA) of .08 or lower, and chi-square/df ratio of 3 or lower (Bentler 1990; Kelloway 1998; Kline 2005). The analysis showed a χ^2 of 1549.7 with 659 degrees of freedom, p<.05, CFI = .89, RMSEA = .07, AGFI = .90, SRMR= .03. The model fit indices yielded a good fit to the four-factor structured model. The results of the modification indexes showed that noimportant modifications were required.

To assess the reliability of the scale, which refers to the consistency of scores (Fraenkel and Wallen 2003), a reliability coefficient was used. Cronbach's alpha reliabilities showthe correlation of one item with another in an instrument. Cronbach's alpha correlation of the instrument was .94. Reliability was calculated for each factor, and the results were as follows: α = .86 for factor 1 (teachers' readiness); α = .95 for factor 2 (administrators' readiness); α = .85 for factor 3 (readiness of school infrastructure); and α = .82 for factor 4 (parents' readiness) (Table 2).

Table 2: Correlation among factors

	Factor 1	Factor 2	Factor 3	Factor 4
Teachers' readiness	-			
Administrators' readiness	.52	-		
Readiness of school infrastructure	.23	.41	-	
Parents' readiness	.27	.35	.55	-

^{*}p<.05

The Effect of Gender and Teaching Experience on Readiness Levels

Before the MANOVA, the necessary assumptions (missing data, influential outliers, multivari-

ate normality, and homogeneity of variance) were checked. The data were examined in terms of the pattern of missing data distribution. The missing data were checked, and if a participant did not give a response for more than two items, the data of his or her questionnaire were excluded from the analysis. There were no variables with more than 4 percent missing data, and replacement with mean was done in these cases (Hair et al. 1998).

MANOVA was conducted to test whether there were any differences between schools' readiness with regard to the teachers' gender and teaching experience. In order to reduce the chance of a type I error, MANOVA was conducted and the interaction between teaching experience and gender was examined. As can be seen in Figure 1, firstly, teaching experiences were divided into six categorical variables, but the sixth variable with one participant did not represent a group, as a category cannot be named as a cell with only one participant; hence, the sixth category was deleted from the dataset. Finally, teaching experience was divided into five categorical variables, and each category was named as a cell. Not all cells have equal numbers of participants. According to van Voorhish and Morgan (2007), a cell size of 30 is appropriate, but the minimum size is 7 (for each sub-group like female teachers with 0-4 years of experience). The results showed that, overall, teaching experience and gender did not have a statistically significant effect on readiness for change (for teachers, administrators, school infrastructure, or parents) (see Table 3).

RESULTS

Table 4 summarises the responses given on the RTC with their mean ranges. Table 4 was determined as the foundation of readiness levels. The results are presented based on four factors. The first factor is 'teachers' readiness towards change', which was assessed through seven items (items 7, 8, 9, 11, 12, 13, and 14). The descriptive data analysis indicated that, overall,

Table 4: Mean ranges for responses given on the $\ensuremath{\mathsf{RTC}}$

Score	Scale	Mean range
1	Strongly disagree	1.00-1.79
2	Partially disagree	1.80 - 2.59
3	Moderately agree	2.60 - 3.39
4	Agree	3.40 - 4.19
5	Strongly agree	4.20 - 5.00

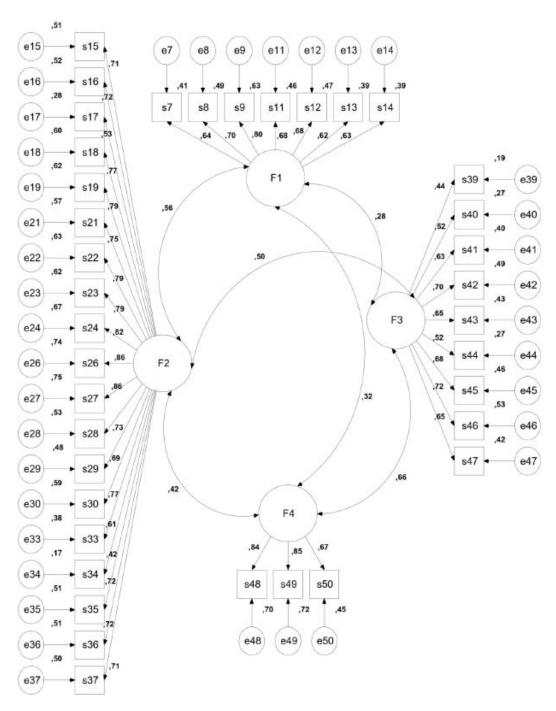


Fig. 1. Results of CFA of the RTC based on observations

Table 3: Interaction between variables

Source	Dependent variable	SS	df	MS	F	Partial η²
Experience	teachers' readiness	1.14	5	.23	.41	.00
	administrators' readiness	4.27	5	.85	1.50	.03
	school infrastructure readiness	1.44	5	.29	.41	.00
	parents' readiness	1.05	5	.21	.20	.00
Gender	teachers' readiness	4.20	1	4.2	7.62	.03
	administrators' readiness	2.65	1	2.6	4.66	.02
	school infrastructure readiness	.73	1	.73	1.03	.00
	parents' readiness	.12	1	.12	.12	.00
Experience * Gender	teachers' readiness	1.06	4	.26	.48	.00
•	administrators' readiness	1.80	4	.45	.79	.01
	school infrastructure readiness	2.00	4	.50	.71	.01
	parents' readiness	2.12	4	.53	.51	.00
Error	teachers' readiness	135.64	246	.55		
	administrators' readiness	139.92	246	.56		
	school infrastructure readiness	173.74	246	.70		
	parents' readiness	254.85	246	1.03		
Total	teachers' readiness	3105.9	257			
	administrators' readiness	3011.9	257			
	school infrastructure readiness	2183.5	257			
	parents' readiness	2110.6	257			

teachers' views were neutral (M = 3.4, SD = 1.01, n = 257) about the schools' readiness towards change. The general mean of the items of the first factor was M = 3.4, showing that the participants agreed teachers were ready for change. The mean and standard deviations for each item are presented in Table 5.

The results for item 8 showed the highest mean among the items of the first factor. The participants agreed that 'Teachers are aware of the necessity of changes to improve student-achievement in education' (item 8: M = 3.7, SD = .99, n = 257). While those who disagreed or strongly disagreed with the statement constituted 12.5 percent (n = 32) of all the participants, 69.3 percent (n = 155) of the participants agreedorstrongly agreed. Additionally, 27.2 percent (n = 70) of the participants were neutral.

The lowest mean in the first factor was for item 13 'I think teachers are able to followed ucational journals on educational changes' (M=3.09, SD = 1.08, n =257). The results illustrated that the teachers neither agreed nor disagreed about being qualified to follow educational academic journals. Negative views (strongly disagree and disagree combined) constituted 29.6 percent (n=76) of the total responses. On the other hand, 37.3 percent (n=96) of the participants heldpositive views (strongly agree or agree) on the content of the item.

Administrators' Readiness towards Change

The second factor of the scale is 'administrators' readiness towards change'. It comprised 19 items (items 15, 16, 17, 18, 19, 21, 22, 23, 24, 26, 27, 28, 29, 30, 33, 34, 35, 36, and 37). The descriptive data analysis showed that, overall, the participants were neutral (moderately agree; M = 3.32, SD = 1.03, n = 257) about administrators' readiness towards change. The means and standard deviations of the items of the second factor are presented in Table 6.

The highest mean in the second factor was for item16 'I think school administrators are open to change and innovation' (M = 3.51, SD = .96, n = 257). A total of 65.3 percent (n = 142) of the participants had positive views (agree or strongly agree) on administrators' openness to change and innovation, while 15.9 percent (n = 41) had negative views. Only 28.8 percent (n = 74) of the participants were neutral.

The lowest mean, M= 3.11, was for item 34 'I think school administrators are qualified to providesupport to non-governmental organisations around them' (M=3.11, SD=1.12, n=257). Negative views (strongly disagree or disagree) on the statement were given by 30.3 percent (n=78) of the participants, whereas 42.4 percent (n=109) of the participants had positive views. Additionally, 27.2 percent (n=70) of the participants were neutral on the content.

School Infrastructure Readiness towards Change

The third factor of the scale is 'school infrastructure readiness towards change', which was assessed through nine items (items 39, 40, 41, 42, 43, 44, 45, 46, and 47). The descriptive data analysis indicated that, overall, the participants were neutral (M= 2.78, SD= 1.24, n= 257) about the readiness of school infrastructure. The means and standard deviations of the items of the third factor are presented in Table 7.

The highest mean was for item 45(M=3.03, SD=1.16). The participants were neutral about the sufficiency of schools' human resources towork towards change and innovation. In total, 31.6 percent (n=81) of the participants had negative views (strongly disagree or disagree). A

similar percentage (37.7%, n=97) had positive views. Only 30.7 percent (n=79) of the participants were neutral.

The lowest mean was M=2.31 (SD=1.26), for item 43 'I think my school has a sufficient budget to meet the requirements of change and innovation'. This mean was also the lowest in the RTC scale. It was clear that the participants disagreed that their schools had a sufficient budget to meet the requirements of change and innovation. More than half of them disagreed with item 43. In total, 57.6 percent (n=148) had negative views (strongly disagree or disagree), while 37.7 percent (n=97) had positive views.

Parents' Readiness towards Change

The fourth factor of the scale is 'parents' readiness towards change', which was measured by

Table 5: Teachers' readiness towards change

Item	n		ongly igree	Dis	agree		lerately ree	Agı	ree	Stre agr	ongly eee	M	SD
		f	%	\overline{f}	%	\overline{f}	%	\overline{f}	%	\overline{f}	%		
7. I think teachers have high motivation towards change efforts.	257	9	3.5	39	15.7	89	34.6	91	35.4	29	11.3	3.36	.98
 I think teachers are aware of the necessity of chan to improve stude achievement in education. 		4	1.6	28	10.9	70	27.2	95	37	60	23.3	3.70	.99
 I think teachers tend to try differ teaching methods and techniques. 		7	2.7	30	11.7	83	32.3	93	36.2	44	17.1	3.53	.99
11.I think teachers are sensitive to cultural, social, at		6	2.3	24	9.3	85	33.1	98	38.1	44	17.1	3.58	.95
12. I think teachers voluntarily partic pate in in-service teacher education programs aimed a developing schoo	257 ei- e n at	13	5.1	56	21.8	89	34.6	69	26.8	30	11.7	3.18	1.06
13.I think teachers are ableto follow educational journals on educational changes.	257	20	7.8	56	21.8	85	33.1	72	28	24	9.3	3.09	1.08
14. I think teachers watch TV programs about educational changes.	257	9	3.5	47	18.3	83	32.3	87	33.9	31	12.1	3.32	1.02

Table 6: Teachers' views on school administrators' readiness towards change

Item	n		ngly gree	Disc	agree		lerately ree	Agr	ee _	Strongly agree M		M	SD
		f	%	f	%	\overline{f}	%	f	%	f	%		
15. I think school administrators believe that chang and innovation are essential.	257 ge	9	3.5	40	15.6	78	30.4	93	36.2	37	14.4	3.42	1.02
16.I think school administrators are open to change. and innovation	257	5	1.9	36	14	74	28.8	105	40.9	37	14.4	3.51	.96
17. I think school administrators believe that chang and innovation are necessary for school benefit:		16	6.2	36	14	72	28	84	32.7	49	19.1	3.4	1.13
18. I think school administrators are qualified to carry outchange management to realise change in schools.	257	14	5.4	36	14	81	31.5	96	37.4	30	11.7	3.35	1.03
19. I think school administrators are qualified to communicate the importance and necessity of change to teachers, students, parents, and other staff.	257	17	6.6	40	45.6	81	31.5	88	34.2	31	12.1	3.29	1.07
21. I think school administrators have the skills to prepare materials and understand staff psychology in efforts towards change and innovation.	257	20	7.8	52	20.2	87	33.9	69	26.8	29	11.3	3.13	1.10
22. I think school administrators have the ability to solve possible problems in changes and innovations.	256	13	5.1	44	17.1	88	34.2	82	31.9	29	11.0	3.28	1.05
23. I think school administrators have skills for predicting sources of resistance towards change in schools.	257	13	5.1	45	17.5	81	31.5	91	35.4	26	10.1	3.30	1.09

Table 6: Contd..

Item	n		ngly gree	Disc	Disagree M		erately ree	Agre	ee	Str	ongly ee	M	SD
		f	%	f	%	f	%	f	%	f	%		
24. I think school administrators have adequate knowledge and skills for reducing resistance	257	12	4.7	42	16.3	94	36.6	85	33.1	24	9.3	3.2	.99
towards change. 26. I think school administrators can plan a change	257	10	3.9	44	17.1	88	34.2	88	34.2	27	10.5	3.3	1.0
effectively. 27. I think school administrators can create a vision for change.	257	8	3.1	35	13.6	105	40.9	80	31.1	29	11.3	3.33	.95
28. I think school administrators have detailed information on the school's	257	7	2.7	30	11.7	76	29.6	114	44.4	30	11.7	3.5	.94
organisation. 29. I think school administrators willtake support from school members such as teachers, students parents, and othe staff.		8	3.1	35	13.6	71	27.6	110	42.8	33	12.8	3.48	.98
30. I think school administrators are qualified to motivate school staff towards change and innovation.	257	11	4.3	36	14	80	31.1	92	35.8	38	14.8	3.42	1.1
33. I think school administrators have sufficient skills for providin parents/teachers with consultation on change or		10	3.9	32	12.5	85	33.1	98	38.1	32	12.5	3.42	.99
innovation. 34. I think school administrators are qualified to provide support to nongovernmental organisations around them.	257	24	9.3	54	21	70	27.2	86	33.5	23	8.9	3.11	1.1
atherin. 35. I think school administrators are able to follow publications on professional development.	257	16	6.2	43	16.7	83	32.3	90	35	25	9.7	3.25	1.0

Table 6: Contd..

Item	n	Strongly disagree		Disagree		Moderately agree		Agree		Strongly agree		M	SD
		f	%	f	%	f	%	f	%	f	%		
36. I think school administrators are qualified to implement cont emporary and different method in educational studies.	257 s	15	5.8	44	17.1	91	35.4	81	31.5	26	10.1	3.22	1.03
37. I think school administrators are qualified to use contemporar instructional technology in schools.	257 y	15	5.8	32	12.5	101	39.3	79	30.7	30	11.7	3.29	1.02

three items (items 48, 49, and 50). The mean of all items for this factor was M=2.68 (SD=1.16). The participants' views on parents' readiness towards change were neutral. As can be understood from Table 8, the lowest mean in the factorwas for item 50 'I think the parents of children at my school have positive attitudes towards providing necessary financial support to realise change and innovation' (M=2.40, SD=1.16, n=257). The results showed that the participants disagreed that parents had a negative attitude towards change, indicating their belief that parents support change. The highest mean was for item 48 'I think the parents of children at my school can provide necessary support for change and innovation' (M = 2.83, SD = 1.17, n = 257). The findings showed that theparticipants were neutral about parents' ability to provide support for changes and innovation.

DISCUSSION

When the means of the scale's factors were examined, it was seen that the first factor, teachers' readiness towards change, had the highest mean (M=3.4). The lowest mean (M=2.68) was for the fourth factor, parents' readiness towards change. The lowest item mean (M=2.31) in the scale was for item 43 in the third factor of the scale, 'I think my school has a sufficient budget to meet the requirements of change and innovation'. The highest item mean (M=3.70) was foritem 8 'I think teachers are aware of the ne-

cessity of change to improve student achievement in education'.

Akbaba Altun and Buyukozturk (2011) developed the Change Tendencies towards Change Scale. The four factors of the scaleare Entrepreneurship in change, Belief in the usefulness of change, Resistance to change, and Keeping the status quo. The Cronbach's alpha reliability coefficients of the subscales were .86, .91, .82, and .67, respectively. The differences between scales were related to the sub-scales. While the aim of the RTC was to elicit data on readiness towards change shown by teachers, administrators, parents, and school infrastructures, the Change Tendencies towards C hange Scale was constructed with different sub-scales, thus indicating a different aim.

Omur and Nartgun (2014) recently contributed to the research on change by adapting Kearney and Smith's (2008) Faculty Change Orientation Scale into Turkish. They found the original scale to be both valid and reliable through descriptive and exploratory factor analyses of the Turkish version of the scale including three subscales of the original instrument (faculty/staff's openness to change, management's openness to change, and society's pressure for the direction of change) and 19 items.

One of the findings in this paper is that teaching experience did not have a statistically significant effect on readiness towards change. In Er (2013), the more experience teachers had, the more open they were to change. The differences

Table 7: Readiness of the school infrastructure

Item	n	Stro disa	ngly gree	Dis	agree		lerately ree	Agr	·ee	Str. agr	ongly ee	M	SD
		f	%	f	%	f	%	\overline{f}	%	f	%		
39. The technological infrastructure of school where I work is sufficient to implement changes and innovations in curricula.		54	21	61	23.7	63	24.5	46	17.9	33	12.8	2.77	1.31
40. The science and technology laboratory is sufficient to enhance teaching at my school.	257 a-	64	24.9	55	21.4	73	28.4	45	17.5	20	7.8	2.61	1.24
41. I think my school has an internet infrastructure that can help the curriculum development.		37	14.4	63	24.5	64	24.9	61	23.7	32	12.5	2.95	1.25
42. I think my school has physical equipment that can helpthe curriculum development.	257	61	23.7	53	20.6	61	23.7	50	19.5	32	12.5	2.76	1.34
43. I think my school has a sufficient budget to meet the requirements of change and innovation.	257	93	36.2	55	21.4	62	24.1	28	10.9	19	7.4	2.31	1.26
44. I think my school has sufficient installation to implement necessary changes in newly developed curricula.	257	41	16	77	30	54	21	57	22.2	28	10.9	2.82	1.25
45. I think that at my school, the huma resources are sufficient for change and innovation.		32	12.5	49	19.1	79	30.7	72	28	25	9.7	3.03	1.16
46. I think the administrative team atmy school is effective for implementing change and innovation.		32	12.5	54	21	80	31.1	69	26.8	22	8.6	2.98	1.15
47. I think the necessary guide books, rules, constitution, and regulations exist at my school.	257	39	15.2	63	24.5	80	31.1	43	16.7	32	12.5	2.86	1.22

Table 8: Parents' readiness towards change

Item	n		ngly gree	Disc	agree		lerately ree	Agi	ree	Str	ongly ee	М	SD
		f	%	f	%	f	%	\overline{f}	%	f	%		
48. I think the parents of children at my school can provide necessary support for change and innovation.	257	39	15.2	62	24.1	82	31.9	51	19.8	23	8.9	2.83	1.17
49. I think the parents of children at my school support school administrators for possible change and innovation.	257	41	16	59	23	81	31.5	58	22.6	18	7	2.81	1.15
50. I think the parents of children at my school have positive attitudes towards providing necessary financial support to realise change and innovation.	257	74	28.8	65	25.3	68	26.5	40	15.6	10	3.9	2.4	1.16

between these findings might be related to the teaching experience of the participants. The mean length of teaching experience was 11.52 years for the participants described in this paper, whereas according to Er (2013), teaching experience was divided into categories and mean length was not presented.

The literature includes many studies related specifically to curriculum change because new curricula in elementary education were announced by the MNE in 2004 and were implemented nation wide in the 2005-2006 academic year. Following this, various studies were conducted on the curriculum change (Bumen 2005; Gomleksiz 2005; Hazir 2006; Yapici and Leblebiciler 2007; Guven and Alp 2008). The aim of this paper is to presents the results of the confirmatory factor analysis of the RTC because the scale can be used as an umbrella measurement scale to determine the readiness of schools and school staff as a whole. It is expected that this paper will provide information on the structure of the scale factors and teachers', administrators', parents' and schools' readiness towards change.

CONCLUSION

First, CFA was conducted, and the findings confirmedthat the RTC consists of four subscales, namely, teachers' readiness towards change, school administrators' readiness towards change, school infrastructure readiness towards change, and parents' readiness towards change $(\chi^2(659) = 1549.7, N=257, p<.05, CFI=.89, AGFI=$.86, RMSEA = .07, AGFI = .90, SRMR= .03). As reliable authors in the field agree, values of CFI that are .90 and higher show a good fit for the factor structure. Here, the CFI was .89, and it was therefore evaluated as very close to the ideal value; the other fit indexes also showed a good fit. Although modification was not suggested by the program, correlations were added between randomly selected error terms, but the researchers cannot reach better model fit indexes. Therefore, the result was evaluated as acceptable. The value of AGFI was.90, and higher values show good fit to data. The results of the CFA also showed that factor loadings ranged from .42 to .86. In addition, the Cronbach's alpha reliability coefficients of the subscales were. 86, .95, .85, and .82, respectively, for the first to fourth factors.

After the four-factor structure of the scale was confirmed through CFA, MANOVA was conducted. The assumptions were examined before the MANOVA was performed. The results demonstrated that gender and teaching experience did not affect readiness towards change among teachers, school administrators, school infrastructure, or parents. In brief, gender and teaching experience did not show statistically significant effects on teachers' views of the four factors of readiness towards change.

RECOMMENDATIONS

According to the factor analysis, readiness towards change can be determined by teachers, administrators, the school infrastructure, and parents. In brief, this paper tried to evaluate the readiness of a school through statistical means.CFA was conducted with a sample of elementary school teachers. In subsequent studies, comprehensive information can be presented with different sample groups and CFA. Furthermore, in this paper, the sample group consisted of teachers who worked in a specific city and had participated in in-service training. Reaching a wider sample of teachers who work in different cities should be a goal of future studies. Moreover, the results in this paper indicated that the readiness that is related with the physical infrastructure of the school is insufficient. In this regard, improvements to physical infrastructure would be useful, and studies that identify the limitations of schools' physical infrastructure are expected to give detailed information.

REFERENCES

- Akbaba Altun S, Buyukozturk S 2011. Change tendencies scale development. Kalem Journal of Educational and Human Sciences, 1(1): 73-90.
- Alic M 1990. Need for Organisational Change in General High Schools. Eskisehir: Anadolu University, Faculty of Education Publications.
- Bentler PM 1990. Comparative indexes in structural models. Psychological Bulletin, 107(2): 238-246.
- Bulbul T 2012. Developing a scale for innovation management at schools: A study of validity and reliability. Educational Sciences: Theory and Practice, 12(1): 168-174.
- Bumen NT 2005. Teachers' views concerning new elementary 1-5th grades curricula and a sample in-service education study prepared for applying new curricula. Ege University Ege Journal of Education, 6(2): 21-57.

Bursalioglu Z 2000. New Structure and Behaviour in Educational Management. Ankara: Pegem Publications.

- Cafoglu Z 1996. Unchangeability in changing educational system. *Journal of New Turkey* (Education— Special Issue), 2(7): 37-46.
- Celikten M 2000. Change management skills of school principals. Education and Science, 26: 14-20.
- Er E 2013. Examining the Relationship between Primary School Teachers' Perceptions on School Openness to Change and School Change Capacity. Unpublished Doctoral Dissertation, Gazi University, Ankara, Turkey.
- Erdogan M 2005. Newly Developed 5th Grade Science and Technology Curriculum: Reflections from Pilot Study. 8th Symposium on Reflections in Education, Symposium on Evaluating New Elementary Curricula, Ankara, 2(3): 299-310.
- Fraenkel JR, Wallen NE 2003. How to Design and Evaluate Research in Education. New York: McGraw-
- Fullan M 1991. The New Meaning of Educational Change. New York: Teachers' College Press.
- Gol E, Bulbul T 2012. The perceptions of the teachers regarding the innovation management efficacies of the primary school administrators. Mersin University Education Faculty Journal, 8(2): 97-109.
- Gomleksiz MN 2005. Evaluating the effectiveness of implementation of new elementary curriculum .Educational Sciences in Theory and Practice, 5(2): 339-384.
- Guven B, Alp S 2008. Teachers' views concerning the programme outcomes of new social studies courses. Journal of National Education, 177: 153-165.
- Hair JF, Anderson RE, Tatham RL, Black WC 1998.Multivariate Data Analysis. 5th Edition. Upper Saddle River, NJ: Prentice Hall.
- HazirBikmaz F 2006. The elementary curricula and teachers. Ankara University Journal of Educational Sciences, 39(1): 97-116.
- Hesapcioglu M 2003. School, new public management and total quality management. Educational Sciences in Theory and Practice, 3(1): 77-88.
- Huberman A M 1973. Understanding Change in Education -An introduction. Experiments and Innovations in Education No.4. (ERIC Document Reproduction service).
- Kaptan Z 2001. Restructuring in Teacher Education. Organisation and Management of Turkish National Education in the year 2000. Reflections in Education: 4th National Symposium. Ogretmen H.H. Tekisik Foundation for Developing Education Publications 4: Ankara.
- Karip E 1996. Developing effective education systems. Educational Management, 2: 245-257.
- Kelloway EK 1998. Using LISREL for Structural Equation Modeling: A Researcher's Guide. Thous and Oaks, CA: Sage Publications.
- Kline RB 2005. Principles and Practice of Structural
- Equation Modeling. 2nd Edition. New York: Guilford Ministry of National Education [MNE] 2013. Ministry of National Education, Elementary Curriculum Files. From http://ttkb.meb.gov.tr/ogretmen/modules. php> (Retrieved on 16 November 2013).
- Omur YE, Nartgun SS 2014. Faculty change orientation scale: Adaptation to Turkish language, validity and reliability. Educational Administration: Theory

- and Practice, 20(3): 307-326. doi: 10.14527/kuey. 2014.013
- Ozdemir S 1995. Organisational Change in Education: A Research on Course Passing and Credit System. Ankara: Ministry of National Education, Directorate for Education and Research Development.
- Ozkan HH 2009, May. Necessity of Innovation in Vocational and Technical Education. Paper presented at The First International Congress of Educational Research. "Trends and Issues of Educational Research", Onsekiz Mart University, Canakkale.
- Polatcan M, Titrek O 2013. The Relationship Between Leadership Behaviours of School Principals and Their Organisational Cynicism Attitudes. 4th World Conference on Learning, Teaching and Educational Leadership (WCLTA), University of Barcelona, Barcelona.
- Tanriogen A 1995. Resisting change and roles of educational administrators in the resistance against. Contemporary Education, 211: 8-12.
- Tas S 2007. Barriers of innovation in education. Journal of Suleyman Demirel University Institute of Social Sciences, 17: 183-192.

- Titrek O, Zafer-Gunes D 2011. The Relationship Between School Administrators' Attitudes Towards Technology and Their Transformational Leadership skills. 3rd International Conference on Education and New Learning Technologies (EDULEARN), Barcelona, Spain.
- Toklucu E 2001. Problems of the Structure of the Central Organisation and Solutions. Organisation and Management of Turkish National Education in the Year 2000. Reflections in Education: 4th National Symposium. Ogretmen H.H. Tekisik Foundation for Developing Education Publications 4, Ankara.
- Van Voorhish CR, Morgan BL 2007. Understanding power and rules of thumb for determining sample sizes. Tutorials in Quantitative Methods for Psychology, 3(2): 43-50.
- Velicer WF, Fava JL 1998. The effect of variable and subject sampling on factor pattern recovery. Psychological Methods, 3: 231-251.
- Yapici M, Leblebiciler NH 2007. Teachers' views with regard to new primary school curriculum. *Elementary Education Online*, 6(3): 480-490.