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An Investigation of Dispositional Resistance, Change-specific Resistance and Change-related Information: The Case of the "4+4+4" Educational Reform in Turkey

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Abstract

The purpose of the current study was to investigate teachers' attitudes towards change, dispositional and change-specific resistance, and their perceptions of change-related information, within the context of the recent system-wide educational change, widely known as "4+4+4 Reform Initiative", in Turkey. The researchers conducted a correlational quantitative study. The sample of the study consisted of 402 primary and middle schools teachers selected randomly. Research results indicated that teachers resisted to the recent change cognitively, affectively and intentionally, respectively. The highest resistance level was associated with cognitive resistance. Teachers' perceptions of change-related information were at the "disagree" level. The paper ends drawing implications for educational reform initiatives in Turkey.

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Una investigación sobre la resistencia al cambio, la resistencia específica al cambio y la información relacionada con el cambio: El caso de la reforma educativa "4 + 4 + 4" en Turquía

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Resumen

El propósito del presente estudio fue investigar las actitudes de los maestros hacia el cambio, su Resistencia, el cambio específico y sus percepciones de la información relacionada con el cambio, en el contexto educativo actual conocido como "4 + 4 +4 Reform Initiative", en Turquía. Los investigadores realizaron un estudio cuantitativo correlacional. La muestra del estudio consistió en 402 maestros de escuelas primarias y secundarias seleccionados al azar. Los resultados de la investigación indicaron que los maestros se resistieron al cambio reciente cognitiva, afectiva e intencionalmente. El nivel de resistencia más alto se asoció con la resistencia cognitiva. Las percepciones del profesorado acerca de la información relacionada con el cambio estaban en el nivel de "desacuerdo". El documento termina trazando implicaciones para las iniciativas de reforma educativa en Turquía

Palabras clave: el cambio educativo, el sistema educativo 4 + 4 + 4, las actitudes de los maestros hacia el cambio, la resistencia al cambio, la información relacionada con el cambio

-Nothing endures but change-
Heraclitus (540 BC-480 BC)

Some internal and external overpowering factors such as the need to remain competitive, environmental demands and changes, technological developments, globalization and state policies force today's organizations and individuals to change (Reio, 2005; Liu & Perrewé, 2005; Van Dam, Oreg & Schyns, 2008). Knowledge production has reached an unprecedented level with the inception of the information age, and it has taken such a form that the extent of knowledge generated even in the last three decades has exceeded that produced since the origin of humankind (Gedikoğlu, 2005). Regardless of its name, form or the way it occurs, e.g. reform, transformation, innovation etc., change is likely to provide many opportunities for organizations and individuals. Once implemented properly, change can be a means of fostering a sense of mastery, accomplishment, professional growth; development, increasing resources, correcting past failures and cultivating new and long-term effective patterns of behavior (Fullan, 2007; Lewis, 2011; Newton & Tarrant, 1992). Failing to respond to change might impinge on the relationship between the organization and its environment (James, 2011). This is because change functions as a means of communication between organizations and/or individuals, and their broader environments.

The increasing globalization of the world has made change inevitable for all of the organizations, including educational organizations. Fullan (2010) argues that educational systems are loosely coupled, fragmented, overloaded, and faced with inertia, over the course of time. Therefore, in educational systems, change could serve a two-fold purpose; a) to improve the quality of learning and teaching processes in schools, thus making them more effective (Akşit, 2007), and b) to help them overcome friction and inertia, and prevent entropy from reigning schools.

Armenakis & Harris (2009) argue that change is a knotty phenomenon and suggest that it has to be treated seriously by both organizations and individuals. Understanding the nature of change, therefore, is critical for successful implementation of change (Harris, 2002). Despite its benefits for the organization, change could encroach on time, effort, energy and

extensive investments due to some misled, unnecessary or flawed changes (Lewis, 2011). For these reasons, every single phase in a change or reform initiative must be considered carefully by top management and policymakers, and any attempts requiring a change in critical tasks within the organization must be must be preceded by a caveat on its outcomes for the organization. Change or reform initiatives need to be built on a sound rationale to avoid devastating damages in the beginning and later phases of change. Harris (2002) proposes five questions to be considered by change leaders in the pre-change process: how important is this change?, how necessary is this change at this time?, what priority does the change have?, how will others view this change and respond to it?, what will be the main benefits from this change? (p.38). These questions and their answers could help change leaders act responsibly in terms of planning, initiating and implementing an incoming change, and truly see the pros and cons that the change will bring.

The New 4+4+4 Education System

Advances in technology and information have altered expectations from education, and forces of globalization and knowledge-based economies have transformed how schools and educational systems operate (Reyes, 2014). The Turkish education system is no exception. To keep up with changing dynamics around the world, a recent system-wide change was put into practice in the education system in Turkey so as to educate individuals to be fully equipped with the required skills and knowledge of the information age.

The recent educational change is widely known as the "4+4+4 Education System", and this new system covers 4 years of elementary education, 4 years of middle school education and 4 years of secondary education. The change was launched in 2012 and put into practice in the academic year of 2012-2013 and is still ongoing. Along with extending the basic compulsory education from 8 years to 12 years, this new system brought about change in some other aspects of the system, such as division of school facilities, new elective courses, and the reopening of religious and vocational middle schools. The"4+4+4 system" aimed at increasing the schooling and raising

the society's education level, decreasing the existence of disparities between various regions across Turkey, and making Turkish education more democratic and flexible, by offering some novelties at various levels (e.g. elective courses like Kurdish, Zaza and the Life of the Prophet Muhammad) to meet socio-cultural demands of citizens and students from education (MONE, 2012).

Critical Issues in the Change Process

Change literature has dealt with some critical issues regarding the quality and success of the change initiatives ubiquitously. Borrowing from computer science, the terms, "software" and "hardware" can be utilized as lenses in understanding reform and/or change initiatives. No matter how high the quality of the screen, monitor, and keyboard of the computer are, it does not mean anything without properly-operating software. As such, organizational aspects which could be considered as software would include culture, beliefs, attitudes etc., and need to be dealt with during the change process, because physical infrastructure, time and money do not warrant success and attainment of organizational goals, *per se*, during the change process.

One critical issue in the change process is *the human side of change*. More often, organizational change aims at altering some key variables in organizations, which might influence the members of the organization and their work behaviors (Jimmieson, Terry, & Callan, 2004). As the members of the organization are faced with uncertainty, rather than what they are already familiar with (Robbins & Coulter, 2012), their attitudes toward change affect their stance on the change. As change may bring about unfamiliar circumstances, breaking work routines and building on organizational memory, change may be embraced enthusiastically by organizational members under some circumstances, however, in others, it may be opposed to.

As a pivotal predictor of the success and quality of change, employee attitudes towards change have been investigated more than many other topics related to change (Rafferty, Jimmieson, & Armenakis, 2013). The success of change relies heavily on employee attitudes (Miller, Johnson & Grau, 1994). Lau &Woodman (1995, p. 549) posit that employee attitudes

are "an outcome of a cognitive understanding of change guided by the person's change schema".

Some key concepts related to change are widely investigated to shed light on employee attitudes towards change. These can be viewed as elements of the human side of change. One of these key elements is *readiness for change*. Holt, Armenakis, Harris, and Field (2007) define readiness for change as;

> … a comprehensive attitude that is influenced simultaneously by the content the process, the context and the individuals (i.e., characteristics of those being asked to change) involved and collectively reflects the extent to which an individual or a collection of individuals is cognitively and emotionally inclined to accept, embrace, and adopt a particular plan to purposefully alter the status quo… (p. 326).

Holt et al.'s (2007) definition implies that individuals with high levels of readiness for change have a tendency toward embracing and implementing change cognitively and emotionally and seeing it as a positive process. However, those with low levels of readiness for change are more likely to feel anxious and exhibit negative feelings.

Resistance to change is another key element examined in terms of change recipients' attitudes towards change. The term 'resistance to change' can be traced back to the human psyche (Reeves, 2009), and it has an *unconscious origin* (James, 2010). In the related literature, resistance to change is associated with some negative feelings, such as anxiety, insecurity, feelings of loss, and struggle (Newton & Tarrant 1992; Harris, 2002). Negative feelings may accelerate the process of feeling a threat to one's sense of identity, self-esteem, and self-worth (James, 2011) and could lead to change avoidance (Yukl, 2010).

Oreg (2006) argues that individuals' perceptions regarding change are one of the elements underpinning resistance to change. In addition to this, change recipients' general confidence about handling change successfully plays a significant role in their reactions to change (Yukl, 2010). Individuals with high levels of change-related self-efficacy are less likely to experience distress by feelings of inadequacy, unlike those with low change-related self-efficacy (Jimmieson, Terry, & Callan, 2004). Those individuals with lower

levels of self-efficacy are likely to think that they cannot cope with change. Focusing on the cognitive underpinnings of change, Lau & Woodman (1995) postulated that an individual's schemas about change are directly affected by individual-level factors related to change.

An elaborated and multifaceted analysis of resistance to change is required to get a wider picture of resistance to change. Piderit (2000) operationalized a multidimensional conceptualization of resistance to change, in order to examine change recipients' attitudes towards change through cognitions, emotions and intentions/behaviors. In the cognitive dimension, employees' response to change may range from positive beliefs (i.e. change is essential for the organization to succeed) to negative beliefs (i.e. this change could ruin the organization). In the affective dimension, employee responses may range from positive emotions (i.e. happiness, excitement) to negative emotions (i.e. anger, fear). In the intentional/behavioral dimension, responses to change may range from positive intentions of supporting change or negative intentions of opposing it. Using such a conceptualization facilitates exploration of different responses to different dimensions and "enhances accuracy in predicting employee behaviors" (Piderit, 2000, p. 789), at least for change-related contingencies. Likewise, Elizur and Guttman (1976) suggested a tripartite conceptualization composed of cognitive, affective and intentional/behavioral components (Bouckenooghe, 2010). In addition to these components, Schiffer (2011) asserts that there might be physical responses to change, such as burnout or stress-related disorders.

Information about change includes communicating information about the change to the recipients. Many researchers have emphasized the role (and importance) of receiving information in the change process (Reio, 2005; Liu & Perrewé, 2005; Wanberg & Banas, 2000; Sloyan & Ludema, 2010; Oreg, 2006; Jimmieson, Terry, & Callan, 2004). Providing information about the change is likely to reduce negative feelings, increase awareness and readiness, by preparing individuals for what is impending. However, providing information does not necessarily apply to all change initiatives. Harris (2002) proposes that information, which may affect individuals and organizations profoundly, must be communicated. To illustrate, provision of information may be pertinent to a whole-system change. Then it becomes a

moral imperative to inform the recipients about the change since changing the whole system results in changes in every context people work (Fullan, 2006), and an alignment is needed between the goals of reform initiatives and intrinsic motivations of stakeholders in such cases (Fullan, 2011). However, the recent change in Turkish education system is inconsistent with Harris' (2002) and Fullan's (2006) advice as the change was initiated abruptly without prior implementation and formal announcement of it to the change recipients, albeit being a system-wide change.

Figure 1 demonstrates change-specific resistance and the inverse relationship between change-specific resistance and some variables.
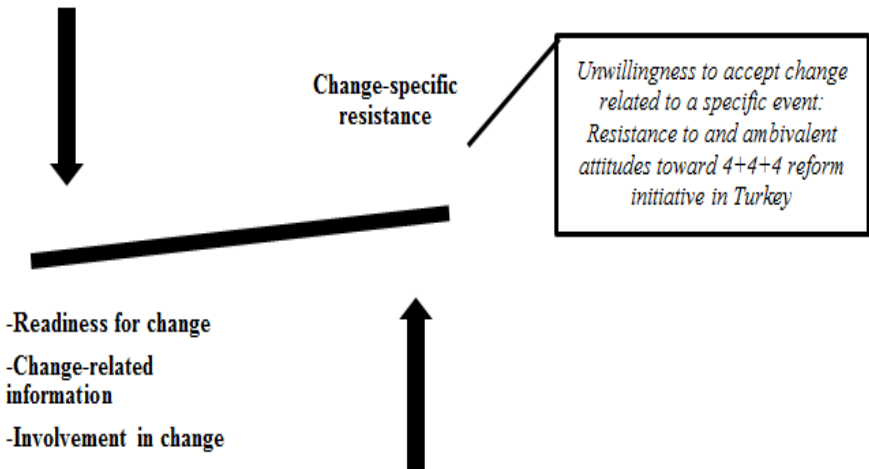

Figure 1. Change-specific resistance and the inverse relationship between change-specific resistance and some variables (these variables are by no means exhaustive).

Figure 1 shows the inverse relationship between change-specific resistance and readiness for change, involvement in change, and change-related information. The increase in the level of these variables could result in a decrease in the extent of change-specific resistance.

Individuals' attitudes towards change might also be influenced by some other variables such as their general attitudes towards change (Lau & Woodman, 1995), such as personality traits (Oreg, 2003; Oreg, 2006; Oreg et al., 2008) and variables in the environment (Van Veen, Sleegers, & Van de Ven, 2005). Among these variables, personal characteristics of change recipients' reactions to change have been exhaustively studied previously (Oreg, Vakola, & Armenakis, 2011). Reviewing literature about the resistance to change personality trait, Oreg (2003, pp. 681-682) identified six sources of *dispositional resistance* to change: a) reluctance to lose control, b) cognitive rigidity, c) lack of psychological resilience, d) intolerance to the adjustment period involved in change, e) preference for low level of stimulation and novelty and f) reluctance to give up old habits.

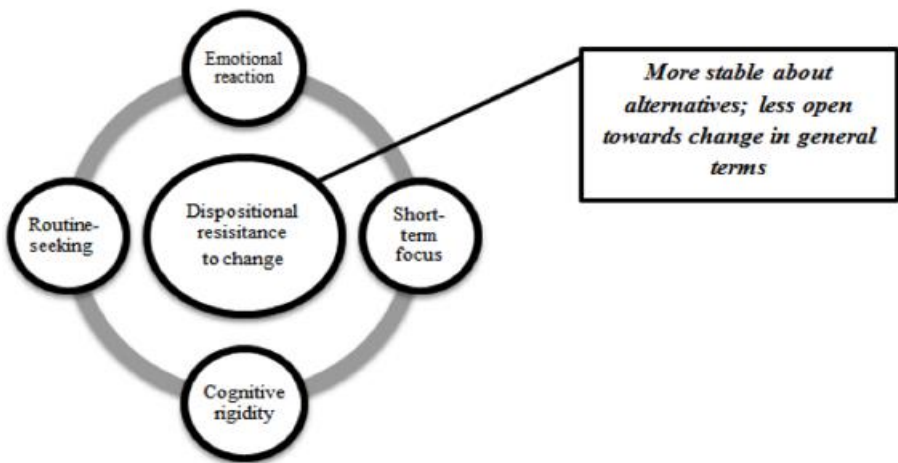Dispositional resistance and its components are elucidated in Figure 2.

Figure 2. Dispositional resistance to change and its components

As can be seen in Figure 2, dispositional resistance to change has four components: emotional reaction, routine-seeking, short-term focus and cognitive rigidity. Oreg et al. (2008) argue that dispositional resistance to

change might have an impact on individuals' stance in resisting or avoiding change.

The purpose of the present study was to explore the relationship between teachers' perceptions of the "4+4+4 Educational System", by treating it as a specific change event, and their dispositional resistance towards change in general, and change-related information about the new system using preliminary data collected about seven months after the implementation of the change.

Methodology

Research Design

This research is a correlational quantitative study of teachers' attitudes towards the change in the Turkish education system. The aim of the quantitative correlational studies is to determine the existence and level of change, between two or more quantitative variables (Karasar, 2009). These studies help clarify our understanding of important phenomena by identifying relationships among variables (Fraenkel, Wallen, & Hyun, 2012). Table 1 demonstrates the research variables and the research questions.

Table 1
Research variables and questions

Variables	Questions
Dispositional resistance to change	*Are teachers change-aversive in general terms? Is there a relationship between their attitudes toward the 4+4+4 Education System (a specific change) and change in general terms (for example, openness to adopt new ideas)?*
Attitudes towards change (with attribution to 4+4+4 system)	*What are teachers' attitudes toward the recent change (4+4+4) in Turkey?*
Change-related information	*Are teachers informed about the change process (viz. the implementation of the 4+4+4 system)?*

The research has three variables as demonstrated in Table 1: *dispositional resistance to change*, *attitudes towards change* and *change-related information*. Dispositional resistance to change as a stable personality trait refers to the role of change recipients' internal inclinations in embracing and resisting change. Change-aversive people are less likely to initiate change voluntarily and more likely generate negative attitudes towards change (Oreg, 2006). According to Oreg (2003), change recipients' internal inclinations towards adopting and resisting change can predict their reactions to specific change initiatives.

Attitudes towards change were used in this research as a variable which elucidated teachers' cognitive, affective and behavioral reactions to the change. This variable specifically measured their change-specific reactions in the case of the 4+4+4 education reform. This type of resistance may stem from the processes followed and outcomes emerged after change initiatives as indicated in the related literature.

Change-related information can be specified as a context-specific pre-change variable which may affect change recipients' attitudes towards change (Wanberg & Banas, 2000). This variable was chosen to be used in this research so as to unearth whether change leaders' approach to providing information in the change process affected teachers' attitudes towards change either in a positive or negative way. Research has shown that change-related information is positively associated with attitudes towards change (Van den Heuvel, Freese, Schalk, & Van Assen, 2017).

Participants and Procedures

The population of the study was comprised of primary and middle school teachers working at schools located in a large city in the Southeastern Turkey, during the academic year of 2012-2013. The city in which the data were collected is the sixth largest province in Turkey. The research was conducted during the first year of implementation of the change (in the second semester of the academic year). The sample of the study consisted of 425 primary and middle school teachers who were chosen randomly. There were 425 questionnaires collected from the teachers. Of these, 23 questionnaires which were incomplete or not filled out properly were

eliminated. Statistical analyses were performed on the data gathered from 402 of the teachers. Frequencies and percentages regarding participants' gender, age, school type and seniority are presented in Table 2.

Table 2
Frequencies and percentages regarding teachers' gender, age, seniority and school type

Gender	f	%
Male	191	47.5
Female	211	52.5
Total	402	100
Age	**f**	**%**
Younger than 30	198	49.3
31-40	181	45
41 and above	23	5.7
Total	402	100
School Type	**f**	**%**
Primary	201	50.0
Middle	201	50.0
Total	402	100
Seniority	**f**	**%**
1-10 years	274	68.2
11-20 years	114	28.4
21 and above	14	3.5
Total	402	100

As can be seen in Table 2, 47.5% of the teachers attending the current study were male and 52.5% of them were female. There were 49.3% of the participants who were below the age of 30, 45% of them were between 31-40 years, and 5.7% of them were 41 years and above. Moreover, 50% of them were primary school teachers, and 50% of them were middle school teachers. Of the participating teachers, 68.2% had 1-10 years of teaching

experience, 28.4% of them had 11-20 years of teaching experience and 3.5% of them had more than 21 years of teaching experience.

Instruments

In the study, the researchers used a personal information form, attitudes toward change scale, dispositional resistance to change scale and change-related information scale, to collect data. For the *Change-related Information Scale*, an exploratory factor analysis was performed. Meanwhile, a confirmatory factor analysis was performed for *Attitudes toward Change Scale* and *Dispositional Resistance to Change Scale* using LISREL 8.20.

Personal Information Form. This form was prepared by the researchers to determine some demographic variables (gender, age, school type and seniority) related to the participants.

Attitudes toward Change Scale. This scale was developed by Oreg (2006) to measure employees' attitudes toward change. The scale was translated into Turkish by five language experts working in the field of English language teaching. In the adaptation study, some minor changes were made in the wording of statements to make them applicable to the recent change in the educational system and to make sure that the concepts included in the scale had the same meaning in Turkish too. The sample items were *"I believed that the change would make my job harder (Cognitive)", "I protested against the change (Behavioral)", and "The change made me upset (Affective)".* The original three-dimensional factorial structure was confirmed. The dimensions of the scale were affective, behavioral and cognitive resistance to change. In this scale, three factors, consisting of 15 items, had an acceptable fit with the data (RMSEA= .09, NFI= 0.95, NNFI= 0.95, CFI= 0.96, IFI= 0.96, GFI=0 .90). Cronbach's alpha reliability coefficient of the scale was found to be .734.

Dispositional Resistance to Change Scale. This scale was developed by Oreg et al. (2008) to uncover employees' dispositional resistance to change.

The Turkish version of the scale developed by Oreg et al. (2008) was used in this study. The original four-dimensional factorial structure was confirmed. The four dimensions in the scale and sample items were *routine seeking* (I generally consider changes to be a negative thing), *emotional reaction* (When I am informed of a change of plans, I tense up a bit), *short-term focus* (Changing plans seems like a real hassle to me) and *cognitive rigidity* (I often change my mind). The scale was also validated by Güçlü, Özer, Kurt, and Kandemir (2010) in Turkish culture and used in research conducted on teachers (Paloş & Gunaru, 2017). In this scale, four factors, consisting of 17 items, predicted by the dispositional resistance to change latent variable, fitted with the data at an acceptable level (RMSEA= .07, NFI= 0.88, NNFI= 0.90, CFI= 0.92, IFI= 0.92, and GFI= 0.92). Cronbach's alpha reliability coefficient of the scale was found to be .776.

Change-related Information Scale. Change-related information was measured using Wanberg and Banas's (2000) modified version of Miller et al.'s (1994) scale. This scale consisted of four items. Exploratory factor analysis indicated that the KMO sampling adequacy coefficient was 0.798, and the result of Bartlett's Test of Sphericity was 778.984 ($p<0.001$). The scale explained 71.70 % of the variance. Cronbach's alpha reliability coefficient of the scale was found to be .864. One sample item on the scale was *"The information I have received about the recent change has been timely"*.

Collection and Analysis of the Data

Quantitative data were collected via questionnaires. Before administering the questionnaires, the researchers gave detailed information about the purpose and significance of the study to the participants and assured them that their personal information would be confidential. The questionnaires were administered by the researchers. The SPSS 20.00 program was used in the analysis of the quantitative data. Apart from the means and standard deviations, the Pearson moment-product correlation was used to uncover the relationships between teachers' attitudes towards change (i.e. the recent change in the education system), dispositional resistance to change and

change-related information. Furthermore, a multiple linear regression analysis was performed, to determine the effects of the independent variables (change-related information and dispositional resistance) on the dependent variable (attitudes towards change). Multiple linear regression attempts to predict the dependent variable based on two or more independent variables (predicting variables) associated with the dependent variable (Büyüköztürk, 2008, p. 98). The data of this research met the requirements of multiple linear regression analysis. The data had equal intervals, and it was found that the data were normally distributed. There was a linear relationship between the predicting variables and the independent variables. Durbin-Watson values were equal to 2, which enabled the researchers to conduct a multiple linear regression analysis.

Findings and Interpretation

Means and standard deviations regarding teachers' cognitive, affective and behavioral attitudes toward change, dispositional resistance to change and change-related information are presented in Table 3.

Table 3
Means and standard deviations regarding teachers' cognitive, affective and behavioral attitudes toward change, dispositional resistance to change level and change-related information levels

Variables	Means	Stand. dev.
Cognitive	3.302	.778
Affective	3.280	1.068
Behavioral	2.977	1.027
Cognitive rigidity	3.532	.915
Emotional reaction	3.171	1.055
Routine seeking	2.964	.800
Short-term focus	2.605	1.075
Change-related information	2.381	.945

The findings presented in Table 3 indicated that the means of teachers' resistance to change in the cognitive domain were higher than all other dimensions. The cognitive domain was followed by the affective and behavioral domains. Cognitive resistance to the recent change in the Turkish education system was at the highest level, while the lowest level was related to behavioral resistance. On the other hand, the findings revealed that the highest element of dispositional resistance was cognitive rigidity, while the lowest was the short-term focus. The teachers' perceptions of change-related information were at the "disagree" level. This finding indicated that teachers did not get enough information related to change in the Turkish education system prior to full implementation of the new system.

The relationship between sub-dimensions of teachers' attitudes toward change, sub-dimensions of dispositional resistance to change, and their perceptions of change-related information is given in Table 4.

Table 4
Correlation matrix of the relationship between sub-dimensions of teachers' attitudes toward change, sub-dimensions of dispositional resistance to change and their perceptions of change-related information

Variables	Information	Routine-seeking	Emotional reaction	Short-term focus	Cognitive rigidity
Affective	-.222**	.237**	.295**	.149**	.121*
Behavioral	-.096	.238**	.128*	.097	.177**
Cognitive	-.001	.222**	.235**	.162**	.088

*p>0.01 , **p>0.05

Table 4 indicated that there was a negative low but significant relationship between affective resistance and change-related information. A statistically significant low but positive correlation was found between affective resistance and sub-dimensions of dispositional resistance to change. Furthermore, there was not a significant relationship between

behavioral resistance and change-related information. Teachers' behavioural resistance correlated with routine-seeking, emotional reaction and cognitive rigidity at a low but significant level; whereas there was not a significant relationship between teachers' behavioural resistance and short-term focus. Teachers' cognitive resistance correlated with routine-seeking, emotional reaction and short-term focus at a low but significant level. However, no statistically significant relationships were found between teachers' cognitive resistance, change-related information and cognitive rigidity (one of the dimensions of dispositional resistance).

The results of multiple linear regression analysis of teachers' affective resistance, dimensions of dispositional resistance to change and change-related information are given in Table 5.

Table 5
Multiple linear regression analysis of teachers' affective resistance, dimensions of dispositional resistance to change and change-related information levels

Variables	B	SD	β	t	p
Constant	2.426	.265		9.156	.000
Change-related information	-.282	.052	-.250	-5.428	.000
Routine seeking	.219	.069	.164	3.193	.002
Emotional reaction	.255	.052	.252	4.902	.000
Short-term focus	5.059	.053	.000	.001	.999
Cognitive rigidity	.019	.059	.016	.324	.746

R=.413 R^2=.171   F= 16.296 p=.000

As shown in Table 5, a moderately significant correlation was found between teachers' change-related information levels, their perceptions of routine-seeking, emotional reaction, short-term focus and cognitive rigidity and affective resistance (R=.413, R^2=.171, p=0.00). Teachers' perceptions of change-related information, their perceptions of routine-seeking, emotional reaction, short-term focus and cognitive rigidity predicted 17% of the total variance of teachers' affective resistance. According to the standardized

regression coefficients (β), affective resistance was predicted by emotional reaction, change-related information, routine-seeking, cognitive rigidity and short-term focus respectively. When t-test results are examined, it can be seen that emotional reaction, change-related information, routine-seeking were significant predictors of affective resistance, but cognitive rigidity and short-term focus were not significant predictors of it.

The results of the multiple linear regression analysis regarding teachers' behavioral resistance, dimensions of dispositional resistance to change and change-related information levels are presented in Table 6.

Table 6
Multiple linear regression analysis regarding teachers' behavioral resistance, dimensions of dispositional resistance to change and change-related information levels

Variables	B	SD	β	t	p
Constant	1.949	.268		7.281	.000
Change-related information	-.127	.052	-.117	-2.418	.016
Routine seeking	.267	.069	.208	3.850	.000
Emotional reaction	.044	.053	.045	.843	.400
Short-term focus	-.035	.054	-.036	-.648	.517
Cognitive rigidity	.138	.059	.123	2.339	.020

R=.291   R^2=.085   F= 7.344   p=.000

The results of regression analysis in Table 6 demonstrated that a low-level but significant correlation was found between teachers' change-related information levels, their perceptions of routine-seeking, emotional reaction, short-term focus and cognitive rigidity and behavioral resistance levels (R=.291, R^2=.085, p=0.00). Teachers' perceptions of change-related

information, their perceptions of routine-seeking, emotional reaction, short-term focus and cognitive rigidity predicted 8% of the total variance of teachers' behavioral resistance levels. According to standardized regression coefficients (β), routine-seeking, cognitive rigidity, change-related information, emotional reaction and short-term focus predicted behavioral resistance, respectively. When t-test results are examined, it can be seen that change-related information, routine-seeking, and cognitive rigidity were significant predictors of behavioral resistance, but emotional reaction and short-term focus were not significant predictors of behavioral resistance.

Multiple linear regression analysis regarding teachers' cognitive resistance, dimensions of dispositional resistance to change and change-related information levels is presented in Table 6.

Table 7
Multiple linear regression analysis regarding teachers' cognitive resistance, dimensions of dispositional resistance to change and change-related information levels

Variable	B	SD	β	t	p
Constant	2.475	.203		12.177	.000
Change-related information	-.020	.040	-.024	-.500	.618
Routine seeking	.151	.053	.155	2.860	.004
Emotional reaction	.129	.040	.174	3.225	.001
Short-term focus	.031	.041	.043	.757	.449
Cognitive rigidity	-.017	.045	-.020	-.385	.701
R=.284 R^2=.081 F= 6.936 p=.000					

The results presented in Table 7 revealed a low-level but significant correlation among teachers' change-related information levels, their perceptions of routine-seeking, emotional reaction, short-term focus and cognitive rigidity and cognitive resistance levels (R=.284, R^2=.081, p=0.00). Teachers' perceptions of change-related information, their perceptions of

routine-seeking, emotional reaction, short-term focus and cognitive rigidity predicted 8% of the total variance of teachers' cognitive resistance levels. According to standardized regression coefficients (β), cognitive resistance was predicted by emotional reaction, routine-seeking, short-term focus, change-related information and cognitive rigidity, respectively. When t-test results are examined, it can be seen that emotional reaction and routine-seeking were significant predictors of cognitive resistance, but change-related information, cognitive rigidity, and short-term focus were not significant predictors of cognitive resistance.

Discussion and Conclusions

The researchers hoped to explore teachers' perceptions and attitudes towards the recent system-wide educational change in Turkey, and the role of information in their perceptions and attitudes towards change. The research results indicated that the teachers who were resistant to the recent change in the Turkish education system showed their resistance cognitively, affectively and intentionally, respectively. The highest resistance was associated with the cognitive areas. On the other hand, they did not believe that change was communicated to them in advance. Change literature has focused on the reasons for the resistance, overall. As mentioned by Oreg (2006), one reason for resistance to change is the extent to which change is perceived as beneficial or detrimental by change recipients. Consistently, Lau and Woodman (1995) maintain that cognitive understanding of change influences individuals' attitudes towards change. Bovey and Hede (2001) note that individuals create their own interpretations of what is going to happen, how the changes are perceived, and what others are thinking or intending during organizational change. Teachers' beliefs and behaviors, which are of critical importance for educational change (Fullan, 2007), are shaped by their perceptions of what is impending or coming in the future. In some cases, teachers may be eager for change but there may be a mismatch between what teachers expect and what they experience, which may result in their attaching little value to the change as is the case in the recent 4+4+4 education reform (Toprak, 2017).

The second type of resistance was related to the affective underpinnings of the change. According to Piderit (2000), affective resistance included strong positive emotions and strong negative emotions. For this study, it can be stated that teachers who believed that change would result in unpleasant consequences felt negative emotions, like anger, stress, frustration or fear. This may be a consequence of the lack of change-related information. Reio (2011) suggests that negative emotional reactions may be reduced with increased communication and the free flow of information, which could help decrease the uncertainty associated with change.

On the other hand, the lowest resistance level was related to behavioral resistance. This result could demonstrate that teachers did not resist change largely by such behaviors as voicing their dissatisfaction with the new system, protesting it, trying to find ways to prevent the change or making plans to quit their jobs. Oreg (2006) found in his study that there was a positive relationship between behavioral resistance and intention to quit.

Within the given dispositional resistance sub-dimensions, cognitive rigidity was the highest dimension of teacher resistance, while the lowest was short-term focus. It is surprising that the highest resistance dimensions were associated with cognitive domain (i.e. cognitive resistance and cognitive rigidity). Cognitive rigidity is an important dimension of dispositional resistance, and it is associated with stubbornness and unwillingness to think about alternatives (Oreg et al., 2008). Oreg (2003) proposes that cognitive rigidity is one of the characteristics of dogmatic people who are closed-minded and less willing to adjust to new situations. Thus, it may be concluded that teachers with a high level of cognitive rigidity wanted to sustain their traditional ways and methods, instead of revising their existing teaching approaches. Kondakçı, Zayim, and Çalışkan (2013) argue that teacher resistance is caused by an increase in workloads and the feeling of the uselessness of their existing skills and competencies. The finding on the cognitive rigidity may indicate that teachers' resistance was not solely related to the recent educational change in the system.

Teachers' perceptions of change-related information were at the "*disagree*" level; this finding suggested that teachers did not get enough information related to the change during the pre-change process. In their study, Wanberg and Banas (2000) found that increased information about

change was associated with greater change acceptance. Likewise, Jimmieson, Terry, and Callan (2004) argue that providing timely and accurate information can lower the negative feelings caused by organizational change. Stressing the importance of information about the change, Sloyan and Ludema (2010) propose that change leaders must communicate information about the change for those who are expected to implement the change. Obviously, providing information about the change may help the teachers prepare cognitively and affectively in the pre-change process. They can have a better understanding of the rationale behind the change.

The statistical analysis revealed a low, negative but significant relationship between affective resistance and change-related information. This finding demonstrated that when the level of change-related information increased, the level of affective resistance decreased. This implicates a reverse relationship between affective resistance and information. According to van Veen and Sleegers (2009), teachers' emotions should be considered because they implement change in schools, and their emotions are likely to provide valuable insight into a deeper understanding of teachers' professional lives in times of reforms. This is of utmost importance as teachers' emotions subsequently influence their learning and development, and ultimately their performance (Reio, 2011). Saunders (2013) maintains that knowledge of how emotions affect teachers in times of change could help in initiating and managing educational change more wisely. Liu and Perrewé (2005) caution that people sometimes leave their organizations as they are unable to overcome the emotional turmoil that they are experiencing during the change process. If teachers do not feel good about change, they are more likely to have negative feelings, and they might feel unmotivated to accept change.

A statistically significant, positive but low correlation was detected between affective resistance and the sub-dimensions of dispositional resistance to change. However, Oreg (2006) found that the resistance to change personality trait had a strong relationship with the affective component. Furthermore, the relationship between behavioral resistance and change-related information was not significant. The teachers' behavioral resistance correlated with routine-seeking, emotional reaction and cognitive

rigidity at a low but significant level; whereas the relationship between teachers' behavioral resistance and short-term focus was not significant. Teachers' cognitive resistance correlated with routine-seeking, emotional reaction and short-term focus at a low, but significant level. Consistently, Van Dam, Oreg, and Schyns (2008) found that personal characteristics were related to employees' resistance to the change. However, no statistically significant relationship was found between teachers' cognitive resistance, change-related information and cognitive rigidity.

A moderate though significant correlation was found between teachers' change-related information levels, routine-seeking, emotional reaction, short-term focus and cognitive rigidity, and affective resistance. Affective resistance was predicted by emotional reaction, change-related information, routine-seeking, cognitive rigidity and short-term focus respectively. In addition, emotional reaction, change-related information, and routine-seeking were significant predictors of affective resistance, but cognitive rigidity and short-term focus were not significant predictors of affective resistance. When receiving change, the recipients generate precursors which result in support for or resistance to change (Armenakis, Bernerth, Pitts, & Walker, 2007).

The results demonstrated that there was a low, though significant correlation among teachers' change-related information levels, their perceptions of routine-seeking, emotional reaction, short-term focus and cognitive rigidity and behavioral resistance. Behavioral resistance was predicted by routine-seeking, cognitive rigidity, change-related information, emotional reaction and short-term focus respectively. Moreover, change-related information, routine-seeking and cognitive rigidity were significant predictors of behavioral resistance, but emotional reaction and short-term focus were not significant predictors of behavioral resistance. It can be inferred that those who are change-aversive may tend to resist change behaviorally/intentionally. Consistently, Oreg (2006) suggests that some people are more likely to experience negative emotions and to act against organizational changes because of their dispositional inclination. In their study on IT-induced change, Laumer, Maier, Eckhardt, and Weitzel (2016) concluded that dispositional resistance to change had stronger effects on attitudes toward change more than some other variables such as gender, age,

and work experiences. According to Lamm and Gordon (2010), people generally think about how their personal work situation will be affected when making behavioral choices regarding organizational change.

It was found that there was a low, but significant correlation among teachers' change-related information levels, their perceptions of routine-seeking, emotional reaction, short-term focus and cognitive rigidity and cognitive resistance levels. Cognitive resistance was predicted by emotional reaction, routine-seeking, short-term focus, change-related information and cognitive rigidity respectively. Likewise, emotional reaction and routine-seeking were significant predictors of cognitive resistance, but change-related information, cognitive rigidity, and short-term focus were not significant predictors of cognitive resistance. Day (2002) argues that reforms mostly challenge teachers' practices and lead to increased workload. He adds that teachers' identities, which he argues to be central to motivation, efficacy, commitment, job satisfaction and effectiveness, are not addressed in the planning of reform initiatives. These may be some of the reasons why teachers resisted the change.

Overall, the quantitative findings of this study demonstrated that primary and middle school teachers resisted the recent change cognitively, affectively and behaviorally. Despite having low-level correlations with resistance to change dimensions, it could be stated that teachers' dispositional characteristics played a role in their resistance to change. More importantly, change-related information, which was not communicated to the teachers in the change process, may be a reason that the recent change was not regarded as a well-designed change, especially in the pre-change process.

Educational Implications

Because of its complicated nature, change leads to uncertainties, complexities, problems, negative feelings and resistance. It should be kept in mind that most changes are planned or implemented to take individuals and organizations one step forward from the previous state. Even though the ideas and reasons behind change initiatives are highly legitimate and reasonable, macro-, meso- or micro-level actions, or problems, could impede

the intended benefits at certain times. In this sense, policymakers and change leaders need to plan every phase in the change process, involve and inform all the stakeholders, and listen to their voices; and they must anticipate and plan for resistance to change (Shirley & Noble, 2016). More importantly, they must enhance teachers' readiness for change before initiating change as readiness for change is closely linked to the total experiences of teachers in their particular work settings (Kondakci, Beycioglu, Sincar, & Ugurlu, 2017). They need to conduct pilot studies, collect feedback about the process in the field of implementation, and make corrections if needed.

Further research must focus on the reasons why state authorities and policymakers initiated the recent change without consulting the most key players to obtain their views. What aspects of the new system are welcomed by teachers and school principals, what kinds of problems are faced by teachers in implementing the new system, and how teachers view the advantages of the new system over the former one are some of the topics which require further investigation. In addition, a longitudinal study should be conducted to reveal whether the teachers are right in their reactions to the recent change.

Limitations

This research has several limitations which must be acknowledged. First of all, this study gathered and used cross-sectional data from a large metropolitan city in South-east of Turkey. Therefore, the results of the study may not be generalized to teachers working in other cities across Turkey. Some work-related variables and experiences of the teachers working in this region may have affected their attitudes towards the recent change. The data were collected through self-report measurement instruments; therefore, the results drawn were based on their self-reported views determined through questionnaires.

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