EXPERIMENTAL EXPLORATION OF ATTITUDE CHANGE:
A PATH MODEL OF COGNITIVE DISSONANCE, RESILIENCE, AND
READINESS FOR ORGANIZATIONAL CHANGE AMONG PROSPECTIVE
TEACHERS

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I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

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ABSTRACT

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TEACHERS

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The purpose of this study was to compare three different attitude groups (negative attitude group, positive attitude group, and control group) with respect to the magnitude of change obtained for Readiness for Organizational Change (RFOC) factors (*personal benefit, change efficacy, appropriateness, and management support*), and to test two separate path models investigating the nature of the relationships between Cognitive Dissonance and Resilience in predicting the magnitude of change obtained for RFOC factors, in relation to an upcoming educational change initiative (*Novice Teacher Training Program*). The sample included 201 undergraduate students pursuing degrees at the faculty of education in a public university in Ankara. The data was collected by creating a quasi-experimental setting through the RFOC, Cognitive Dissonance, and Resilience scales.

The results revealed that both the positive attitude group and negative attitude group significantly differed from the control group in terms of the magnitude of change obtained for RFOC variables. Regarding the separate path analyses, the first path

analysis revealed that Cognitive Dissonance positively and significantly predicted the magnitude of RFOC factors as; *change efficacy and appropriateness*. The second path analysis yielded that Cognitive Dissonance negatively and significantly predicted the magnitude of RFOC factors as; *change efficacy and appropriateness*. Last, Resilience did not predict Cognitive Dissonance and the magnitude of RFOC factors. Through this study, an experimental exploration of attitude change in Turkish education context was enabled by means of adopting persuasive change-message approach and cognitive dissonance theory. The findings offer insightful implications for theory, practice, and research in change implementations.

Keywords: Educational Change, Readiness for Organizational Change, Cognitive Dissonance, Resilience, Quasi-Experimental Design.

ÖZ

TUTUM DEĞİŞİMİNİN DENEYSEL YÖNTEMLE İNCELENMESİ:
ÖĞRETMEN ADAYLARI ARASINDA BİLİŞSEL UYUMSUZLUK,
YILMAZLIK VE ÖRGÜTSEL DEĞİŞİME HAZIR OLMA DURUMUNUN BİR
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Bu çalışmanın amacı, eğitimsel bir değişim önerisi (*Aday Öğretmen Yetiştirme Programı*) bağlamında, üç farklı tutum grubunu (olumsuz tutum grubu, olumlu tutum grubu ve kontrol grubu), Örgütsel Değişime Hazır Olma düzeyinin alt boyutları (*bireysel yarar, değişim yeterliği, uygunluk ve yönetim desteği*) açısından karşılaştırmak ve ayrıca Bilişsel Uyumsuzluk ve Yılmazlık değişkenleri arasındaki ilişkinin doğasını, Örgütsel Değişime Hazır Olma düzeyinin alt boyutları açısından iki farklı yol analizi ile test etmektir. Çalışmanın örneklemi, Ankara'da bulunan bir devlet üniversitesinin eğitim fakültesinde eğitimlerine devam etmekte olan 201 lisans öğrencisinden oluşmaktadır. Araştırma verisi, oluşturulan yarı deneysel ortamda Örgütsel Değişime Hazır Olma, Bilişsel Uyumsuzluk ve Yılmazlık ölçekleri ile toplanmıştır.

Bulgular olumlu tutum grubunun veya olumsuz tutum grubunun, Örgütsel Değişime Hazır Olma düzeyinin farklı boyutları açısından, kontrol grubundan anlamlı bir şekilde farklılaştığını ortaya koymuştur. İki farklı yol analizine ilişkin olarak, ilk yol analizinin sonuçları, Bilişsel Uyumsuzluk değişkeninin, Örgütsel Değişime Hazır Olma düzeyinin iki alt boyutunu (*değişim yeterliği ve uygunluk*) pozitif ve anlamlı bir yönde yordamakta olduğunu ortaya koymuştur. İkinci yol analizi sonuçları,

Bilişsel Uyumsuzluk değişkeninin, Örgütsel Değişime Hazır Olma düzeyinin iki alt boyutunu *(değişim yeterliği ve uygunluk)* negatif ve anlamlı yönde yordamakta olduğunu ortaya koymuştur. Son olarak, Yılmazlık, hem Bilişsel Uyumsuzluğu hem de Örgütsel Değişime Hazır Olma düzeyinin alt boyutlarını yordamamıştır. Bu çalışma kapsamında, ikna edici değişim mesajı yaklaşımının ve Bilişsel Uyumsuzluk teorisininin kullanımı yoluyla, eğitim bağlamında tutum değişikliğinin deneysel bir şekilde araştırılması sağlanmıştır. Elde edilen bulgular, değişim uygulamaları açısından kuram, uygulama ve araştırma anlamında önemli çıkarımlar ortaya koymuştur.

Anahtar Kelimeler: Eğitimsel Değişim, Örgütsel Değişime Hazır Olma, Bilişsel Uyumsuzluk, Yılmazlık, Yarı-Deneysel Desen

To my family…

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LIST OF ABBREVIATIONS

TES	Turkish Education System
MONE	Ministry of National Education
NTTP	Novice Teacher Training Program
RFOC	Readiness for Organizational Change
OC	Organizational Change
M	Mean
SD	Standard Deviation
MCAR	Missing Completely at Random
ANOVA	Analysis of Variance
CFA	Confirmatory Factor Analysis
AMOS	Analysis of Moments Structures
SPSS	Statistical Package for the Social Sciences
SRMR	Standardized Root Mean Square Residual
RMSEA	Root Mean Square of Error Approximation
CFI	Comparative Fit Index
TLI	Tucker-Lewis Index
NNFI	Non-Normed Fit Index
CI	Confidence Interval
MVA	Missing Value Analysis

CHAPTER 1

INTRODUCTION

1.1. Background of the Study

The beginning of educational change as a self-conscious field of study goes back to the aftermath of World War II (Lieberman, 2014) while the concept of change in schooling dates back to the mid-19th century (Cuban, 1990). Since those times, educational change has become so pervasive that it has turned into a policy priority and major public news, but the act of bringing about change in education generally outpaced our understanding of how to implement it effectively (Hargreaves, Lieberman, Fullan, & Hopkins, 2014). In view of the ever-increasing repeated change attempts which frequently dismantle the former practices (Cuban, 1990; İnal, 2012), the initiated educational changes seem to be either fully or partly far away from the intended objectives (Akşit, 2007; Gaziel, 2010). The disappointment with regard to the educational change attempts has also caught the attention of the scholarly community, orienting them to study the basic precursors of organizational change practices in Turkish education context (e.g., Çalışkan, 2011; Kondakci, Beycioglu, Sincar, & Ugurlu, 2017; Zayim, 2010).

The Ministry of Nationalg Education (MONE) introduced a large-scale change, *Novice Teacher Training Program*, in the spring of 2016 (Resmi Gazete, 2016). This drastic and nationwide change program offers an extensive training content to the newly assigned teachers at public schools before they start to teach at classes. On the one hand, the training program has appeared to involve promising

objectives as; providing special attention to the early orientation of novice teachers in their professional career; getting them to explore the social, ethnic, cultural, and racial diversities of the city/region where they will be teaching; and being mentored by a senior teacher during the training. On the other hand, after 642-hour of training, the program requires the attendants to pass both written and oral examinations to be qualified for taking the permanent job contract at public schools. In brief, while the announced objectives of the program seem quite plausible, the participants are subject to undergoing a period of tough training process

The rationales put forward by the MONE about this training program make it seem worthwhile to implement this change offering. However, the recommendations, critisims, and experiences in relation to former educational change attempts also suggest substantial issues to reconsider before launching it. In his book about the history of Turkish Education, Akyüz (2010) shared the following quotes from Big Journal (Büyük Mecmua) written in 1919 to illustrate a typical educational reformer; "the main characteristic of our reformers is that they don't feel the need to learn from previous reform attempts, the ideas developed, and the intended objectives in previous attempts, instead they prefer to implement a simplistic change initiative that just occurs to them with little or no thought put into it" (Büyük Mecmua, 1919, pp. 65-66, as cited in Akyüz, 2010). This historical and critical perspective seems still valid and is articulated by a number of scholars for the TES. For instance, Erdoğan (2014) states that a number of significant change attempts have been performed in recent years, but the efforts are largely based on the quantity side of change rather than the quality aspect, disregarding the prospective advantages or disadvantages of the respective changes. Similarly, İnal (2012) pointed out that the recent educational change (4+4+4) was not properly planned and implemented, and therefore doomed to failure because it lacked necessary piloting process and infrastructure facilities. In relation to other recent large-scale change initiatives such as rapid expansion of universities and Fatih Project, similar concerns have been shared (Arap, 2010; Ekici & Yılmaz, 2013). In brief, the type of change proposals differs in time, but the criticisms are more or less similar, even with the criticism

put forth one hundred years ago as reported in Big Journal (Büyük Mecmua, 1919, as cited in Akyüz, 2010).

In relation to this particular change proposal (Novice Teacher Training Program), considering the prevailing discontent against the educational changes by the teachers (Toprak, 2017) and prospective teachers (Duman, Kural-Baykan, Köroğlu, Yılmaz, & Erdoğan, 2014), one significant concern comes out whether the prospective participants (students of faculty of education) of the program are ready to welcome or embrace the addressed change. In addition, the question of what kind of dynamics and factors are likely to be pivotal in making the novice teachers ready for that particular change comes out. In relation to this, the history of change attempts in TES mentioned above and the broader organizational change literature provides a variety of empirical and theoretical findings for the scholars, practitioners, and policy makers to understand the adventure of a change process. In that sense, the bulk of information documented by the field of organizational change may shed light on the concerns and the questions about this particular impending change initiative for the prospective attendants.

In the Organizational Change (OC) literature, it is strongly stressed that all organizations inevitably undergo changes in accordance with the requirements of the dynamics surrounding them (Burke, 2017). Even more, on the one hand they face the challenges posed by multi-faced forces of changes (Choi & Ruona, 2013); on the other hand, several components of organizational change are becoming more and more complex with the ever-changing technology, and social and political developments that are also becoming more intricate. Therefore, dealing with change issue in organizations urges policy-makers to use different approaches in order to comprehend diverse features of organizations because each aspect of organizational structures may stand for a different side of change in organizations (Armenakis & Bedeian, 1999; Beer & Nohria, 2000; Burke, 2017; Van de Ven & Poole, 1995; Weick & Quinn, 1999).

According to Burke (2017), the organizational change can be classified under four main approaches; 1) order of change (first-order & second-order); 2) nature of change (evolutionary & revolutionary); 3) level of change (individual, group, organizational, & industry); and 4) intentionality of change (planned &

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unplanned). Armenakis and Bedeian (1999) offer four frames of change as; content, contextual, process, and outcome (criterion) issues to understand a typical change in an organization. In addition to these, there are other types of frameworks in change literature for explaining the organizational change (e.g., Burke & Litwin, 1992; Van de Ven & Poole, 1995). Parallel to the perspectives reported in the broader organizational change literature, Fullan (2007) frames educational change under various divisions (e.g., students, parents, community, district, principal, and government) to signify the role of each one in a typical change initiative. Also, he categorizes the educational change process with three-steps; initiation, implementation, and institutionalization, which is like the change process model of Armenakis, Harris, and Field (1999) that includes readiness, adoption, and institutionalization. With regard to Turkish Education System (TES), as one of former top administrators in the MONE, Erdoğan (2014) identifies the change initiatives until 2000s as attempts focusing on the quantitative aspects of schooling like number of schools or number of teachers in education system, but the years after 2000s, as the mass change attempts targeting quality of change such as curriculum change, in-service education for teachers, and modernization of textbooks. It can be concluded that, before 2000s, structural side of change seemed to be primed in order to meet the societal demands for basic schooling, but after 2000s, human aspect of change (individual side) has been primed in order to improve the quality of the Turkish Education system.

It is apparent that there is not one and common understanding about the perceptions or frames of change process (Poole & Van de Ven, 2004). Supporting this notion, for instance, Kezar (2001) suggests that choosing a model or a frame of reference in organizational change is helpful to understand what aspects of change we need to focus on in organizational change because each model of change offers a different perspective with its assumptions about the nature of reality and organizational members. The selection of appropriate change frame largely depends on the problems to be resolved. In the change literature, with regard to the problems encountered, a number of scholars (Beer & Nohria, 2000; Meaney & Pung, 2008; Probst & Raisch, 2005) particularly have stressed that a high rate of failure has been experienced in change interventions.

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Moreover, Choi and Ruona (2013) state that many change efforts cannot terminate as expected and nurture the sustainability of the intended change. Supporting this fact, according to a global survey done by McKinsey & Company (Meaney & Pung, 2008), two-third of participants stated that their companies failed to reach a desirable change or a true "step change" in terms of performance.

In relation to the reasons behind high failures in change initiatives, a number of explanations come forward with respect to the educational and business organizations; some of them are the following ones; failure in managing culture construct (Burke, 2017), focusing on structural aspects of change by excluding the human factor (Clegg & Walsh, 2004), poor management of change (Probst & Raisch, 2005), not giving enough consideration to political, emotional, and moral features of change (Hargreaves, 2005). In a similar fashion, recent educational change attempts in Turkey have been criticized with respect to the following concerns; paying little attention to the demands of teachers without employing a participatory decision-making process (Toprak, 2017), ignoring the complexity of educational changes involving sub-components (Eğitim Reformu Girişimi, 2013).

Of these arguments about the great failures of change attempts, paying little attention to human side of change or ignoring the micro level of understanding in change is especially emphasized. For instance, Schneider, Brief, and Guzzo (1996, p.7) noted that "If the people do not change, there is no organizational change". The great details of change are embedded in the behaviors of organizational members (Orlikowski, 1996) and therefore, it is argued that change necessarily takes place in a contextual setting of human social interactions (Ford & Ford, 1995). With regard to the micro or individual level, one important issue cited in the literature is the reactions or attitudes of people toward change which are thought to be influential factors to comprehend the basics of human side of change (Cunnigham et al., 2002) since the attitudes of people are associated with their perceptions about the offered changes (Prochaska et al., 1994); therefore, the attitudes of organizational members can be precursors for the perceptions that are likely to shape the future course of the

change initiatives. In the relevant literature, different types of attitudes towards change are listed as; openness to change (Wanberg & Banas, 2000), resistance to change (Piderit, 2000), cynicism about change (Reichers, Wanous, & Austin, 1997), and readiness for change (Armenakis, Harris, & Mossholder, 1993).

Among the attitudes represented by people towards organizational change, readiness of individuals towards organizational change is much stressed by some scholars for the sake of successful change interventions (e.g., Armenakis & Harris, 2009; Self & Schraeder, 2009; Stevens, 2013). Furthermore, more than 90 percent of conceptual works on change attitudes are studied within the frame of readiness for change, along with resistance to change (Bouckenooghe, 2010). The most cited definition of readiness for change is stated as "readiness is reflected in organizational members' beliefs, attitudes, and intentions regarding the extent to which changes are needed and the organization's capacity to successfully make those changes in the environment" (Armenakis et al., 1993, p. 681) or "as the degree to which those involved are individually and collectively primed, motivated and technically capable of executing the change" (Holt & Vardaman, 2013, p. 9). Besides these definitions, readiness concept was identified with the internal or cognitive orientation of people while resistance refers to the external or behavioral reflections towards change.

The defining terms of the readiness concept (Armenakis et al., 1993; Holt & Vardaman, 2013) imply that readiness for change seems to have a relationship with cognitions rather than behavioral aspects. Accordingly, it can be thought that readiness of individuals may not be explicitly shown since it relies on cognitive processes and internal occurrences in mind. With a supporting argument, Bernerth (2004) associates readiness with the first two steps (unfreezing & change) of change model suggested by Lewin (1947). Drawing on these, it can be concluded that the sense of readiness for change emerges before acting on the proposed change. Hence, exploring the precursors of the readiness concept is pivotal to understand how readiness develops and thereby turns into a behavioral act.

In the relevant literature, there are a number of predictors cited that can influence the readiness of people towards change. In relation to the classification of

predictors, Holt, Armenakis, Harris, and Feild (2007a) offered four main body of predictors as individual, context, content, and process factors. Of these predictors, the individual factors are linked much more with human side of change while the others are more structural, procedural, and environmental. For individual predictors, some of the mentioned ones in the relevant literature are listed as self-efficacy, adaptability, growth-orientation, influencing skills (Lehman, Greener, & Simpson, 2002), job related change self-efficacy (Cunningham et al., 2002), perceived personal competence, and organizational commitment (Kwahk & Kim, 2008).

With respect to the conceptualization of readiness in change process, Armenakis at al. (1999) offer a three-step model for a successful change process. In this model, readiness comes first as the process of attitude emergence towards the proposed change; then, adoption becomes apparent thorough the application and acceptance of the new orders conveyed by the initiated change; and last, institutionalization happens by way of maintenance of the change as norms in the organization. The model suggests that the successful beginning of a change depends on making individuals ready. In another study of Armenakis et al. (1993), creating readiness attitude is associated with the communicated change message. Also, the components of an effective change message are reported as having five aspects; personal valence, principal support, discrepancy, appropriateness, and self-efficacy (Armenakis et al., 1999).

In the extant literature, it is noted that the differing interpretations of organizational change by individuals turns the change process into a complex matter (Van de Ven & Poole, 1995), but this varying cognitive positioning of people has not much attracted the existing models and theories of organizational change (Weber & Manning, 2001). Bearing this in mind, social cognition theory (Bandura, 1986) also seems to have much to say about the individual side of change, readiness of people, and some other potential predictors of readiness of individuals towards change. Social cognition theory points out that each individual perceives change differently because of cognitive processes people experience while understanding change (Kezar, 2001; Weick, 1995). Moreover, the relationship between change and people cognition have been examined in

order to understand how change, learning, and development occur. As a result of this, some important terms around this topic were generated like knowledge structures, cognitive schema (De Vos, 2002), sense-making (Weick, 1995), cognitive cause-mapping (Weber & Manning, 2001), and cognitive dissonance (Festinger, 1957; Harmon-Jones & Mills, 1999).

In relation to all these processes, it is especially emphasized that people with their varying sense-making mechanisms or cognitive schemas create different realities or perception towards the encountered changes; so it is expected that they generate dissimilar reactions or behaviors towards change; accordingly, social cognition model helps us to examine how people interpret and make sense of change through their cognitions (Harris, 1994).

1.2. Statement of the Problem

Depending on the respective literature briefly stated, it is evident that the past change experiences in Turkish context do not satisfy the stakeholders in TES because of the failures and the steps followed in change process. In addition, a closer examination of human element in change process is much emphasized through the bulk of studies published by Turkish scholars in recent years, for the sake of getting a quality in change initiaitives rather than quantity. Bearing this in mind, a comprehensive investigation of attitude change seems important to capture how people become ready or show resistance towards the particular change proposal (Novice Teacher Training Program) enacted by the MONE in 2016 (Resmi Gazete, 2016). While already studied with respect to a number of predictors, readiness for change construct can be explored with the perspective of Armenakis et al's (1993; 1999) persuasive change message model through designing an experimental setting in which attitudes of individuals can be manipulated through influential change messages.

Based on this change message model for an effective enactment of change process and following a rigorous range of scale development steps, Holt, Armenakis, Feild, and Harris (2007b) offered a readiness for change scale with four factors; management support, change-efficacy, appropriateness, and personally beneficial. As evident from the literature above, the factors and items

of the scale show great similarity with five aspects (personal valence, principal support, discrepancy, appropriateness, and self-efficacy) of change message, which is required for ensuring readiness. In that sense, focusing on management support, change-efficacy, appropriateness, and personal benefit aspects of a change process, an effective change message can be conveyed to the organizational members, which improve their readiness. An effective way of conveying true change message appears quite substantive for creating readiness among employees considering the suggestions provided by Armenakis et al. (1993; 1999) and the readiness for change scale (Holt et al., 2007b).

Bearing this in mind, the participants of the Novice Teacher Training Program have not attended the respective program. However, it is clear that they are the most prospective members of the program and are likely to generate different levels of readiness attitude towards the change considering the importance of the proposed change for their professional career. In that sense, the already held-readiness level of those prospective teachers can be assessed by the readiness for change scale (Holt et al., 2007b) and their attitudes can be manipulated through an effective change message. By this way, the manipulated readiness of individuals towards change can be enhanced and the second step (adoption) of change process may be easily maintained.

Regarding the occurrence of attitude change, the social cognition theory pertaining to the organizational change literature describes an important term called cognitive dissonance which is known as a disharmony state resulting from opposing conditions among cognitive elements in mind (Festinger, 1957). In other words, a newly encountered condition or situation challenges the current beliefs or positions of individuals; so this challenging situation may urge people to accept the new phenomena by changing previous beliefs in different extents. The state of inconsistency between new and old order creates a sense of discomfort and force individual to change one of three dynamics; perception change, action change, or belief change in order to reach a consistency (consonance).

As mentioned earlier, readiness for change is somewhat identified with the internal and cognitive orientation of people towards change (Armenakis et al.,

1993; Clarke, Ellett, Bateman, & Rugutt, 1996); in other words, it is a kind of cognitive originator yielding the prospective behaviors that either resist or support change; similarly the cognitive processes of people when encountered with a new situation or change, either in dissonance or consonance, may have some relations with readiness of people towards change because readiness is put at the very beginning steps of organizational change process (Armenakis et al., 1999; Bernerth, 2004; Choi & Ruona, 2011). Cognitive dissonance level of people can be associated with these first steps because Cooper (2007) points out that the level of discrepancy between two situations (new and old order) in the mind of people affects the dissonance level (discomfort) of people. Similarly, a new offered change is likely to be very positive or negative, in various degrees, for individuals. Therefore, the results of change initiatives at the very beginning can be readiness or not. To sum, the levels of cognitive dissonance of people and their readiness for change seem to have some common implications to better understand how people can be strengthened in terms of readiness by reducing their tension (dissonance) and making them more comfortable (consonant) with the offered changes.

In addition to the potential role of cognitive dissonance in comprehending attitude change, another construct resilience meaning a type of power to recover from adverse situations (Davidson et al., 2005) and a developmental process occurring in the context of person-environment (Egeland, Pianta, & O'Brien, 1993) can also be related with both cognitive dissonance and readiness of people towards change. Weick (1995) points out that sense-making process, the manner of generating interpretation about the situations, can be facilitated through resilience; namely sense making is prompted by change since old and new orders in an organization may appear to urge the individual to have a certain position, either readiness or resistance. In this hard and challenging condition, the resiliency of individuals makes them stronger to think and act properly. In other words, being resilient which is defined as having an adaptation mechanism (Masten, 2001) makes individuals stronger against various difficulties of change (e.g., being vulnerable to new condition, experiencing stress, or showing resistance). By this notion, resiliency of individuals may play a role in the formation and degree of cognitive dissonance state, considering that cognitive

dissonance is also a sense of adverse condition. To the assumptions of cognitive dissonance theory (Festinger, 1957), this state of adversity triggers the formation of attitude change to make individuals get rid of the respective adversity. However, with a similar perspective, resiliency is also acknowledged as a facilitator to heal adverse conditions for a better transformation process. Accordingly, the question of how resilience and cognitive dissonance interacts in the formation of readiness for change seems a promising issue for a further exploration of readiness for change construct.

1.3. Purpose of the Study and Research Questions

Drawing upon the issues reported above, the main purpose of this study was two-fold; 1) to investigate the magnitude of Readiness for Organizational Change (RFOC) factors through the comparison of three different attitude groups (negative attitude group, positive attitude group, and control group), and 2) to test two separate path models investigating the nature of the relationships between cognitive dissonance and resilience in predicting the magnitude of RFOC dimensions among the prospective teachers within the context of a recent change proposal, *Novice Teacher Training Program.* In particular, the current study explored the mediating role of cognitive dissonance on the relationship between resilience and the magnitude of RFOC variables (management support, change efficacy, appropriateness, and personal benefit) dimensions, and tested the predictive role of both resilience and cognitive dissonance in the magnitude of RFOC factors.

To accomplish the goals of the study stated above, three main research questions and the relevant hypotheses were generated.

1. How do the three groups of participants (positive attitude group, negative attitude group, and control group) differentiate in the magnitude of attitude change obtained for each dimension of RFOC?

   Hypothesis 1: Treatment groups (positive attittude group & negative attitude group) will significantly differentiate from the control group in the magnitude of attitude change obtained for each dimension of RFOC.

Hypothesis 2: Positive attitude group will not significantly differentiate from the negative attitude group in the magnitude of attitude change obtained for each dimension of RFOC.

2. How do cognitive dissonance and resilience relate with the magnitude of attitude change obtained for each dimension of RFOC in the positive attitude group?

3. How do cognitive dissonance and resilience relate with the magnitude of attitude change obtained for each dimension of RFOC in the negative attitude group?

As stated in the 2nd and 3rd research questions, another purpose of the study is to test two different hypothesized models in which there are four factors of RFOC as dependent variables (personal benefit, change efficacy, management support, and appropriateness), cognitive dissonance as mediator, and resilience as predictor. While the direct and indirect pathways illustrated in Figure 1 seem to appear in one hypothesized model, the obtained data (negative attitude group and positive attitude group) for each model differ. Thus, two different path analysis will be performed with the same model but different participant groups.
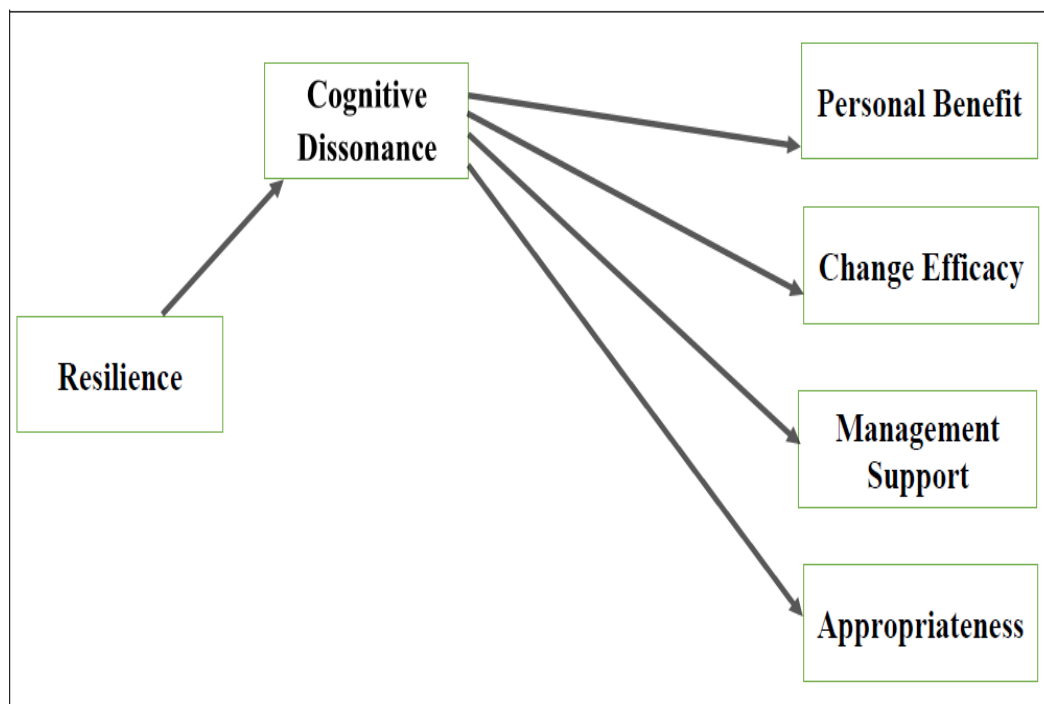
Figure 1. The hypothesized model of the 2nd and 3rd research questions

Based on the 2nd and 3rd research questions, the following hypotheses will be tested in the current study:

Hypothesis 3: Cognitive dissonance will be positively related to the magnitude of attitude change obtained for personal benefit in each attitude group.

Hypothesis 4: Cognitive dissonance will be positively related to the magnitude of attitude change obtained for change efficacy in each attitude group.

Hypothesis 5: Cognitive dissonance will be positively related to the magnitude of attitude change obtained for management support in each attitude group.

Hypothesis 6: Cognitive dissonance will be positively related to magnitude of attitude change obtained for appropriateness in each attitude group.

Hypothesis 7: Cognitive dissonance will be negatively related to resilience in each attitude group.

Hypothesis 8: Resilience will be negatively related to the magnitude of attitude change obtained for personal benefit through cognitive dissonance in each attitude group.

Hypothesis 9: Resilience will be negatively related to the magnitude of attitude change obtained for change efficacy through cognitive dissonance in each attitude group.

Hypothesis 10: Resilience will be negatively related to the magnitude of attitude change obtained for management support through cognitive dissonance in each attitude group.

Hypothesis 11: Resilience will be negatively related to the magnitude of attitude change obtained for appropriateness through cognitive dissonance in each attitude group.

1.4. Significance of the Study

As discussed above, change interventions and their potential results are vital to maintain a large-scale change in big organizations like the MONE. Therefore, the results of the study are expected to have significant contributions to theory, research, and practice in the field of educational change.

As part of this study, being inspired by the seminal works of Armenakis et al. (1993; 1999) about the role of conveying proper change message in creating readiness for change among the organizational members, the process of delivering two different change messages, having either positive or negative content, to the prospective members of the respective change was experimentally investigated. The results of the experimentation provided novel insights by proving that the influence strategies prior to change attempts became quite effective. Through the experimental steps within the comparison of three different groups, the magnitudes of variations in attitude-change observed in the process exhibit inspiring knowledge about the transformation of attitudes depending on the inputs addressed to the attendants of the study.

In addition, it is evident that the bulk of organizational change literature largely documents the potential variables associated with readiness for change construct while this study attempts to explore the effectiveness of change message model in creating readiness for change. Moreover, in view of the studies on change attempts in educational organizations, the application of this model is quite distinctive and informative for the educational change efforts. In brief, the present study provides a practical application of change-message-model of Armenakis et al. (1993; 1999) which has attracted the attention of many scholars in more than twenty-five years of research.

The idea of applying the change message model in Turkish Education context also required adapting the RFOC scale of Holt et al. (2007b), which was

basically constructed around the respective change message model, into Turkish. Conducting the necessary validity and reliability checks of the scale, a well-known RFOC scale of the organizational change literature was made ready to use for Turkish scholars in the field of educational change. Four-factor RFOC scale focuses on different aspects (management support, change-efficacy, personal benefit, and appropriateness) of readiness, all of which have been empirically studied and extensively discussed by a number of scholars. In that sense, this compact scale which has been applied in different organizational settings, appears to contribute a lot to our understanding of educational change attempts in national context.

A distinctive outcome of this study is also the use of cognitive dissonance theory in examining attitude change in educational context. As one of popular topics in social psychology, cognitive dissonance theory has been extensively utilized to explore attitude change of individuals in various areas (e.g., marketing, education, health, and politics). In that sense, the cognitive adventure of people in the course of receiving new information (change message) may shed light on the concept of readiness for change. Accordingly, at the experimental settings, the change message model was also scrutinized by way of observing the participants who experienced cognitive dissonance owing to the contradictory change messages against their existing beliefs or attitudes. In addition, as hypothesized, the empirical association of cognitive dissonance with readiness for change was verified. It is also expected that examination of cognitive dissonance with respect to the readiness for change in educational context will create a stimulation for the educational change scholars by focusing on the ground-breaking topic (cognitive dissonance) of social psychology because the exploration of educational change efforts from the perspective of cognitive dissonance theory appears relatively sparse.

As part of the investigation of cognitive dissonance within an educational change context, the cognitive dissonance thermometer (Eliot & Devine, 1994) was also translated into Turkish by following the required validity and reliability checks. While the dissonance literature notes the challenge of measuring dissonance experience of individuals (Devine, Tauer, Barron, Elliot, & Vance, 1999), the

scale developed by Eliot & Devine (1994) has become the most cited among the alternative assessments of cognitive dissonance construct. Therefore, the adaptation of the respective scale into Turkish will be useful for Turkish scholars. It is also evident that the Turkish literature does not pay enough attention to the dissonance studies, especially in the context of attitude changes in educational organizations while the literature about 60 years of classic theory documents numerous interpretation of it and thousands of empirical studies (Fried & Aronson, 1995).

Another output of this research is the use of resilience construct for the exploration of attitude change among the prospective participants of the particular training program. Resilience has a wide array of applications in differing areas of research (e.g., trauma, poverty, and academic achievement), the application of construct from the perspective of attitude change in educational settings is comparatively limited. Therefore, understanding the role of resilience through a hypothesized model is likely to create a fruitful discussion for the scholars, practitioners, and policy-makers in the field.

Along with the separate contribution of the experiments and adapted scales, two different hypothesized models with three variables (resilience, cognitive dissonance, and readiness for change with four-factor) also provide significant findings in order to observe the process of attitude change in educational organizations. Although the hypothesized model did not fully comply with the findings gathered in the path analysis, some distinctive associations between certain variables offer informative knowledge for the application of the change process to the stakeholders in the field.

1.5. Definition of the Terms

The definitions of the respective terms used in this research were reported below;

Readiness for Organizational Change: "...is reflected in organizational members' beliefs, attitudes, and intentions regarding the extent to which changes are needed and the organization's capacity to successfully make those changes" (Armenakis et al., 1993, p. 681).

Change Efficacy: "…the extent to which organizational members felt confident that they would perform well and be successful" (Holt et al., 2007b, p. 241).

Appropriateness: "…the extent to which members felt that a change was needed (i.e., discrepancy) [and]…the extent to which members felt the change would be beneficial to the organization (i.e., organizational valence)" (Holt et al., 2007b, p. 241).

Management Support: "...the extent to which organizational members felt senior leaders supported the change" (Holt et al., 2007b, p. 241).

Personal Benefit: "…whether the change was perceived to be personally beneficial" (Holt et al., 2007b, p. 241).

Resilience: "The capacity of the individual to effectively modulate and monitor an ever-changing complex of desires and reality constraints —that is the primary basis of long-term adaptability (Block & Kremen, 1996, p. 359).

Cognitive Dissonance: A psychologically uncomfortable state resulting from opposing conditions among cognitive elements in mind (Festinger, 1957).

CHAPTER 2

LITERATURE REVIEW

In this section, a comprehensive literature review with regard to organizational change, the different models of organizational change, readiness for organizational change, cognitive dissonance theory, resilience, and an educational change proposal (Novice Teacher Training Program) is presented. First of all, the literature about organizational change is provided in order to illustrate the number of dimensions or aspects of change because the field of organizational change has a number of varying facets, each of which stands for different side of change. Additionally, readiness for organizational change is especially explained in the context of organizational change literature. Subsequently, the literature about cognitive dissonance theory is briefly provided to reflect how cognitive dissonance can be associated with organizational change and readiness for change literature. Afterwards, the literature about resiliency and its factors are discussed in order to outline what resilience means for teachers and particularly readiness for organizational change. Last, the *Novice Teacher Training Program*, a large scale nationwide change proposal offered by the MONE, is briefly described in order to indicate why the respective change is chosen as an assessment mechanism in the current study.

2.1. Organizational Change

The ever-increasing pace of innovations, the growing amount of expenditures on research and development, and the changing habits of people have made us observe the concept of change a lot more than before. In short, change has become an inevitable part of human life. With regard to the delineation of change concept, Burke (2017) identifies organizational change with the following practices; executing fundamental alterations in the existing ways, re-organizing the structure for decision-making and accountability, and generating new vision for the

organizational members. According to Herold and Fedor (2008), organizational change refers to the revisions of the extant work practices and approaches affecting a whole organization. While the varying definitions of change are more or less framing a common boundary of the concept, understanding and implementing change has evolved through the new perspectives having emerged in the extant literature.

In fact, the seminal explanations of Lewin (1947) about organizational change have been assumed to be a pioneering path in the conceptualization of change. In his three-stage approach, change was identified with the steps; unfreeze, change, and freeze (or refreeze). In the first step, the implementation of change launches through the communication of information, which provides the discrepancy between the existing state and the looked-for state, to the organizational members. In the following step, generation of new values, attitudes, and behaviors comes. Last, the maintenance of new condition is guaranteed. Since those times, depending on varying metaphors like machine, political system, organisms, and flux and transformation (Cameron & Green, 2015; Morgan, 2006), a number of different models have been proposed to illustrate the change process by the scholars (Armenakis & Bedeian, 1999; Beckhard & Harris, 1987; Bridges, 1991; Kotter, 1995, etc.).

2.1.1. Models of organizational change

The organizational change literature has provided a number of helpful models and theories for explaining the changes that organizations carry out. It is evident that change practices differ in scope, content, context, and process. Therefore, change agents are advised to figure out a proper framework or language in order to better notice the nature of their particular change practices, which helps them attain a "peripheral vision" (Cameron & Green, 2015). Each model of change illustrates a simplified picture of the organization through answering the following questions; why the particular change happens; how it will proceed; and what it will result in (Kezar, 2001). In this section, some prominent approaches of the organizational change literature explaining the change process are provided.

2.1.1.1. Content, context, process, and outcome models of organizational change

Reviewing the theoretical and empirical studies conducted between the years of 1990-1998, Armenakis and Bedeian (1999) formulated four facets of a typical organizational change as; content, contextual, process, and outcome (criterion) issues. Guiding a number of research in organizational change in the subsequent years (e.g., Holt et al., 2007b; Walker, Armenakis, & Bernerth, 2007), the proposed model helped the researchers comprehend the boundaries of a change happening in an organization. The meta-analysis of Damanpour (1991) also supports the importance of the respective issues through stating that the success of change attempts is more likely to be related with the fit between content, context, and process of a change rather than the nature of change executed. In that sense, the model of Armenakis and Bedeian (1999) seemed to function as a promising perspective to comprehend change practices.

2.1.1.1.1. Content issues

Content research focuses on the question of what is involved in a change (Burke, 2017). In other words, what the constituents of modern organizational changes are either for successful or unsuccessful attempts (Armenakis & Bedeian, 1999). Some scholars offered varying elements reflecting the content of an organizational change. The models of Burke and Litwin (1992) and Vollman (1996) offer some content elements such as organization structure, strategic orientation, and organization environment fit (as cited in Armenakis & Bedeian, 1999).

In addition, as presented in Figure 2, Dainty and Kakabadse (1990) suggested a framework explaining the content of change as; structure, task, people, and technology. The framework puts people as the central element of a change-content, interacting with all other aspects of the content. In this respect, the so-called importance of human factor in change process also seems to be validated through the perspective of change-content elements.
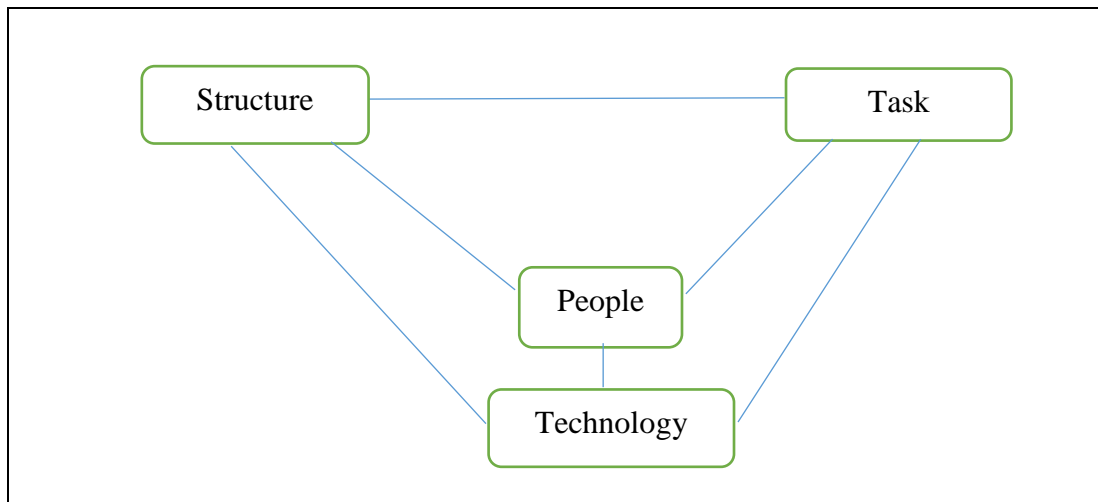
Figure 2. Content components of organizational change. Reprinted from "Organizational change: A strategy for successful implementation by P. Dainty and A. Kakabadse, 1990, *Journal of Business and Psychology, 4*(4), p. 466. Copyright 1990 by the Springer.

2.1.1.1.2. Context issues

The contextual issues of change are identified with the conditions pertaining to organization's internal and external environment. The external context issues are regarded as governmental regulations, technological developments, and conditions affecting competition in marketplace while the internal context issues are reported as change history, degree of organizational slack, and level of specialization (Armenakis & Bedeian, 1999). Apart from these contextual aspects, management attitude toward changes and managerial tenure (Damanpour, 1992), and trust (Bouckenoghe, 2009) are also stated as other contextual variables.

2.1.1.1.3. Process issues

Process factors are associated with the actions employed during the application of a change attempt (Armenakis & Bedeian, 1999). With respect to the question of how change occurs and proceeds, a number of suggestions have been made. However, in their reviews, Armenakis and Bedeian (1999) explained the process issues with two stages as; phases of implementing change and stages in understanding change. With respect to the phases as part of the change implementation, for example, Lewin (1947) identified the change process with three steps as; unfreezing, moving, and refreezing. In addition, with a more comprehensive approach, Judson (1991) offered a five-step change model for explaining the process of organizational change; (1)

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analyzing and planning the change; (2) communicating the change; (3) gaining acceptance of new behaviors; (4) changing from the status quo to a desired state; and (5) consolidating and institutionalizing the new state. Similar to the previous models of change, Kotter (1995) offers an eight-step change model as; (1) creating a sense of urgency; (2) building a guiding coalition; (3) forming a strategic vision and initiatives; (4) enlisting a volunteer army; (5) enabling action by removing barriers; (6) generating short-term wins; (7) sustaining acceleration; and (8) instituting change. In relation to the stages for understanding change, following a series of interviews with managers, Isabella (1990) stated four periods for understanding how a change proceeds; anticipation, confirmation, culmination, and aftermath periods. Similar to the naming of Isabella (1990), Jaffe, Scott, and Tobe (1994) presented a four-stage model of change as; denial, resistance, exploration, and commitment.

2.1.1.1.4. Outcome issues

According to Armenakis and Bedeian (1999), employee attitudes are regarded as the outcome side of organizational change such as stress, commitment, resistance, receptivity, and associated personal aspects. These reactions are assessed to have the critical roles for the success of changes within the content and context domains. Depending on this perspective, the importance of human side of change or personal factors seems evident. Supporting this argument, Clegg and Walsh (2004) noted the importance of employee attitude by stating that ignoring individual side of change may bring about unsuccessful change outcomes. In relation to the research about employee attitude in the extant literature, Bouckenooghe (2009) reported the classification of individual reactions towards change as negative and positive employee attitudes. In the subsequent sections of the literature review, this issue was discussed as employee attitude.

2.1.2. Theories of organizational change

The alternative explanations and theories are abundant as explained in the previous section. Another prominent and inclusive approach explaining the process of organizational change was offered by Van De Ven and Poole (1995), as life cycle, dialectical, teleological, and evolutionary. Including the respective theories of organizational change (Van De Ven & Poole, 1995) and utilizing the cultural model

and social-cognition approach of organizational change, Kezar (2001) provided a critical synthesis of organizational change approaches.

2.1.2.1. Evolutionary theory

Evolutionary model of change is reproduced by the term biological evolution (Van De Ven & Poole, 1995). However, the evolutionary model is classified as social evolutionary and biological models. According to Morgan (2006), biological changes represent the slow-stream changes shaped by the environmental factors, in which change is dependent on situational variables like natural selection process. Social evolutionary model also adopted similar concepts by explaining the changes in disciplines like political science and sociology. The emphasis in evolutionary model is slow process of change and interdependency of events.

Based on the evolutionary model, some different examples of evolutionary models are also discussed in the literature. One is resource-dependency model in which change leaders are active agents and organizations have more interactive structure, another one is strategic choice approach in which leaders choose optimum setting to steer the course of change by predicting possible alterations (Cameron, 1991). Besides that, another evolutionary model is population-ecology which is based on the diversification of sources and supports for certain organizational activities. In this model, the demographic features of setting along with the decisions taken by groups of organizations are critical for the survival of the organization. Last, chaos theory is also reflected in evolutionary theory. It frames change as unplanned actions and therefore it responds to the change organically in accordance with the environmental demands.

2.1.2.2. Teleological theory

Teleological theory is based on the idea that the development of organizations goes on towards a goal or purpose. There is an envisioned end state for organizations to reach that goal with a planned and linear manner (Van de Ven & Poole, 1995). The most distinctive agent of the theory is the leader, change-master who arranges all details of development such as goal formulation, implementation, evaluation, etc. In addition to this, under the field of teleological theory, some different approaches are

also clustered like strategic planning, total quality management, scientific management, organizational development, and adaptive learning (Kezar, 2001).

This model puts the leader at the center of change and follows a rational, linear, and planned way to reach the desired state in the change process. However, the theory is criticized since it identifies the process of change as an overly rational and linear process (Dufty, 1980) and ignores culture, cognition, and the instability of conditions. It is evident that managers cannot have full control over all of the aspects of change in complex organizations of modern time. Therefore, to launch a transformational change is rather difficult for a model that is overly dependent on the change-master's power and guide.

2.1.2.3. Life cycle theory

Life cycle theory is a kind of developmental model like some other developmental theories; moral development, human development, cognitive development (Van de Ven & Poole, 1995). In life cycle theory, organizations are thought to follow birth, growth, maturity, and decline stages of natural cycle (Goodman, 1982). In a similar vein, according to Burke (2017), organic growth is a distinctive metaphor for life-cycle theory because growth is cumulative and conjunctive in which previous stages are followed by later stages (Van de Ven & Poole, 1995). As for criticism, life-cycle theory is considered to be quite conceptual rather than empirical; also organizations do not always proceed with certain stages of linear development (Kezar, 2001).

2.1.2.4. Dialectical theory

Dialectical theory is stated by Van de Ven and Poole (1995) as "dialectical theory begins with Hegelian assumption that the organizational entity exists in a pluralistic world of colliding events, forces, or contradictory values that compete with each other for domination and control (p. 517)." At the end of this competition, each thesis and its antithesis (opposing force) produce a synthesis. In this theory, the social interactions of the contrasting powers cause opposition, struggle, political bargaining, and conflict. Therefore, change does not progress in a rational and planned way like teleological, evolutionary, and life-cycle theory (Kezar, 2001). The outcome of the process is determined by the powerful agent. With regard to the criticisms for this theory, ignoring the power of the environment is stated as

problematic; also the theory does not give any guidance for the administrators to use. It just states the existence of powers. Besides that, in dialectical theory, a macro-approach was highlighted rather than micro-oriented approach.

2.1.2.5. Cultural theory

In cultural theory, the change process is described as long and slow paced since the alterations in organization are not just limited to the structural mechanisms, but especially values, beliefs, myths, and rituals (Schein, 1985). Moreover, the phenomenological and social constructivist approaches are focus of interest in this theory (Kezar, 2001); therefore, change is perceived to be very deep in nature and have many segments. With regard to the similarities with other theories, cultural theory is similar with social cognition theory in terms of the emphasis on collective process of change and important role of each individual. For instance, for this parallelism, Martin (1992) states that all organizational members have unique understanding of organizational culture; therefore, the attempt of change is as difficult as the diversity of people. On the other hand, according to Burnes (1996), this theory is sometimes seen impractical for application because change issue is perceived as long-term with layers of culture that give the notion that change cannot be handled with so many details.

2.1.2.6. Social cognition theory

In the organizational change literature, the process of learning and development in change process was explained with life-cycle model (Van De Ven & Poole, 1995); however, the social learning theory and the role of individual cognition in interpreting the environment (Bandura, 1977) has led the scholars to generate new kinds of interpretations for understanding change process through the framework of cognitive processes. In addition to this, the development of cognitive psychology took place because of the frustration with the behaviorist approach towards learning. Cognitive theory is based on the idea that the problems and emotions are shaped through the manner of our thinking and individuals change their approaches to the conditions by way of altering their thought process (Cameron & Green, 2015). Depending on these perspectives, the interpretation of change has also been done

through exploring the cognitive approach in change, which is delineated as social cognition model (Kezar, 2001).

Social cognition model emphasizes that organizations are not comprised of a distinct and universal reality that is observed similarly by everyone, but instead socially constructed entities are perceived differently by each individual. In other words, in terms of viewing organizations, the functionalist theories (teleological, evolutionary, life cycle, and dialectical) advocate that organization is a single and similar constituent in all people's perceptions, but the social cognition model puts the individual at the center of analysis by advocating that members of organizations with their cognitive processes and thereby various attitudes make the organizations people-specific rather than single unit. Therefore, the insight of this model about organizational change is based on the idea that the cognitions of people were thought to be useful to understand what kinds of cognitive processes drive people to accept or resist something in the course of change implementation (Kezar, 2001). This type of model takes the individual as core element to understand and make sense of the proposed change (Harris, 1994). Instead of macro-oriented change in which human side of change is ignored, individuals are considered as the change agent with their various views about the change and its component because individuals actually make up the system (Tsoukas & Chia, 2002).

Besides the social cognition model, some other models exploring the relationship between cognitive processes and change have also been articulated by some scholars. These are cybernetics (Morgan, 2006), cognitive dissonance (Festinger, 1957; Harmon-Jones & Mills, 1999), cognitive schema (De Vos, 2002; Weber & Manning, 2001), and sense-making (Weick, 1995).

Cybernetics is based on the premise that the social cognition rejects prescribed developmental processes in change, but the functioning of change is explained with individuals' brain analogy. In particular, cybernetics defines the change process as complex, multi-layered, and overlapping sequences of processes (Morgan, 2006). The results of change attempts can be as various as the number of frames of references or mental models (Kezar, 2001).

Cognitive Dissonance theory explains that the conflicting cognitions (dissonance) lead individuals to look for stability (consonance) (Festinger, 1957). The course of transformation from dissonance state to consonance state yield attitude change (Harmon-Jones & Mills, 1999). Therefore, understanding the cognitive processes a person experiences is vital to explore individual change.

Cognitive schema is defined as the sense making mechanism of individuals to interpret the environment (Weber & Manning, 2001). Similarly, De Vos (2002) states that cognitive schema is a kind of reference frame serving as a guide for individuals to comprehend actions, events, and situations. In this environment, members of organizations receiving new information try to process it in order to generate various behaviors in accordance with their understandings. Likewise, for individuals, change attempts are also new atmospheres that sometimes contradict or accord with the existing knowledge of people because of their frame of reference in their cognitions.

Sense making deals with how people interpret their environment and restructure the reality (Weick, 1995). The encountered change urges the individuals to take a position towards it; afterwards, individuals try to reframe the new situation and show reactions in different patterns. These patterns are the multiple realties of a change that are constructed by differing cognitions and interpretations of people. For Weick (1995), sense making is prompted by change since old and new orders in an organization may come up against by urging the individual to have a certain position.

Table 1

Typology of Organizational Change Theories

	Evolutionary	Teleological	Life Cycle	Political	Social Cognition	Cultural
Why change occurs	External environment	Leaders; internal environment	Leaders guiding individual's natural growth	Dialectical tensions of values, norms, or patterns	Cognitive dissonance; appropriateness	Response to alterations in the human environment
Process of change	Adaptation; slow; gradual; non-intentional	Rational; linear; purposeful	Natural progression; result of training and motivation; altering habits and identity	First order followed by occasional second order; negotiation and power	Learning; altering paradigm or lens; interconnected and complex	Long-term; slow; symbolic process; nonlinear; unpredictable
Outcome of change	New structures and processes; first order	New structures and organizing principles	New organizational identity	New organizational ideology	New frame of mind	New culture
Key Metaphor	Self-producing organism	Change-master	Teacher	Social movement	Brain	Social movement
Examples	Resource dependency; strategic choice; population ecology	Organizational development, strategic planning; reengineering; TQM	Developmental models; organizational decline; social psychology of change	Empowerment; bargaining; political change; Marxist theory	Single-and double-looped learning; paradigm-shifting; sense-making	Interpretive strategy; paradigm-shifting; processual change

2.2. Attitudes toward Change

In the field of organizational change, there has been a broad consensus that how organizational members respond to the offered change has to do with the successful implementation of that particular change (e.g., Bovey & Hede, 2001; Piderit, 2000). Based on this perspective, a proper exploration of human attitude becomes vital to figure out a change journey with a foreseeable outcome. In that sense, the extant literature points out the importance of change at micro level (individual level or human side of change) (Beer & Nohria, 2000; Bouckenooghe, 2009; Clegg & Walsh, 2004). Attitude toward a change is delineated as one's general evaluation of the proposed change (Petty & Brinol, 2010) and psychological disposition emerged through the evaluation of the change as favor and disfavor with a varying degree (Eagly & Chaiken, 1998). The development of attitude toward change starts at an early stage when individuals first receive the information about the forthcoming change. That particular information leads organizational members to generate beliefs and emotions, either positive or negative, about the change (Petty & Brinol, 2010). Depending on the strength and direction (positive or negative) of the information provided in this early stage, it can be concluded that the varying degree of attitudes toward change are likely to occur.

In the extant literature, a number of types of attitudes towards change are reported. These are as follows: *openness to change* referring the willingness of organizational members to support the change (Wanberg & Banas, 2000); *cynicism about change* meaning the pessimistic position of individuals towards the proposed change (Reichers, Wanous, & Austin, 1997); *resistance to change* meaning negative external or behavioral orientation toward change (Clarke et al., 1996; Piderit, 2000); and *readiness for change* referring to the extent of beliefs, attitudes, and intentions held by organizational members towards the necessity of a change and the organization's competence to successfully execute the intended change (Armenakis et al., 1993).

Interpreting behaviors of people requires understanding their reactions or perceptions in change process (Cunnigham et al., 2002). Therefore, according to Prochaska and his colleagues (1994), the attitudes of people are precursors about how they perceive

the offered change. Accordingly, individual attitudes seem vital to steer the course of change process in terms of human side.

In addition to this, studies about attitude towards change seem to offer to analyze attitudes of people with different pre-defined factors. For example, in the literature about attitude towards change, the tripartite attitude structure (cognitive, emotional, and intentional) is proposed by Piderit (2000) by giving reference to the early attitude theorists (Katz, 1960; Rosenberg & Hovland, 1960). However, especially in readiness for change, with regard to the use of three-dimensional factor structure, there is still disagreement. For instance, intentional factor is thought to be excluded from three dimensions (Rafferty, Jimmieson, & Armenakis, 2013) because of the fact that intentions are much more associated with motivational factors that affect behavior (Ajzen, 1991) not the attitude. Yet, with a broader approach, Piderit (2000) does not exclude intentional from attitudes towards change by stating that conative side of the attitude can just be reflected with intentional level. On the other hand, Holt and his colleagues (2007b) followed a different path for developing a readiness for change construct, proposing four-factor model (appropriateness, management support, change efficacy, and personally beneficial), which are similar to the five important components (self-efficacy, principal support, discrepancy, appropriateness, and personal valence) of change message (Armenakis et al., 1999; Bernerth, 2004).

2.3. Organizational Change and Employee Attittude Studies in Turkish Context

In Turkish Education System (TES), it has become common to observe an accelerating speed of change attempts in the last decades (Erdoğan, 2014), depending on the technological, social, and political factors. Since the foundation of the Turkish Republic in 1923, a total of 64 education ministers have been assigned to the MONE (MONE, 2017), which is indicative of the fact that TES has always been open to different and fast-changing educational agendas offered by each minister. Supporting this argument, with respect to the recent changes, Erdoğan (2014) criticized the manners employed in change attemtps in recent years by noting that the quantity has superceded the quality and change attempts have not been critically evaluated in terms of advantages and disadvantages.

The growing desires of the top administrative units for changing the components of education seems to be disconnected with the desires of teachers because a recent study (Duman et al., 2014) about the interest of prospective teachers towards the educational changes indicates that they do not want to follow change attempts by noting that educational policies are unstable and lack of long-term-vision. The rapid and constant change attempts have made them lose their trust in change initiatives. In addition, the educational change attempts are constantly being repeated through dismantling the former practices within a short cycle (İnal, 2012) while readiness (piloting), adoption, and institutionalization steps in an order should be followed for a succesful change process (Armenakis et al., 1999). In other words, maintaining a change as a norm in organizations takes time considering the required piloting and implementation processes. In that sense, it seems imperative a good road map before offering changes in educational organizations in order to avoid the failures in change attempts and subsequently exhausted stakeholders.

Considering the importance of employee attitude in change attempts (Bouckenooghe, 2009; Clegg & Walsh, 2004), the critical role of teachers appears to be disregarded because of the manners employed in change attempts in TES (Türkan & Grossman, 2011). Given the significance of employee attitude in organizational change attempts (Armenakis, Harris, & Mossholder, 1993; Herscovitch & Meyer, 2002; Wanous, Reichers, & Austin, 2000) and educational change attempts (Akşit, 2007; Hargreaves, 2005), Turkish scholars have much more focused on this issue by studying different types of attittudes towards change within the TES in recent years. As presented in Table 2, there are a number of studies related with employee attittudes towards change in Turkish context. Most of the studies are related with readiness for organizational change and resistance to change. While there are some studies investigating some different constructs (e.g., trust, job satisfaction, knowledge sharing, distributed leadership) associated with attittude variables, most of the studies focused on some common categorical variables. With respect to the categorical variables, the common ones are gender and years of experience. The other variables are listed as level of education, number of students at school, number of teachers at school, employment status, having child, marital status, school type (elementary, secondary, and high school), teaching field, professional rank,

participating in in-service training, participating in a change project, class, GPA, and field of study.

In Turkish context, the scholarly orientation towards attitude studies in the last years reveals that there is a growing research interest in this particular topic, probably because of large-scale changes (4+4+4 compulsory education reform, Fatih Project, project schools, etc.) that have happened recently. However, in some of these particular studies, one important point to note is that target educational change or change initiative was not reported with respect to the measured employee attitude. In such studies, addressing which type of change is meant in the relevant research can sustain a consistent change issue in the minds of the respondents. Otherwise, the resistance or readiness level of the participants can be misleading if there is not a specific change initiative. In addition, the studies were conducted in different cities of Turkey. In brief, the importance of teacher attitude in change attempts attracts the scholary interest as the relevant literature supports the cruciality of employee attitude in change initiatives.

Table 2

Empirical Studies on Attitudes toward Change in Turkish Context

Authors	Study Design	Sample Size & Setting	Type of Attitude Towards Change	Change Initiative	Variables Associated
Erçetin and Demirbulak (2001)	Causal-Comparative	School Principals (217) Ankara	RFOC	8-year compulsory education	Gender
Helvacı and Kıcıroğlu (2010)	Causal-Comparative	Teachers (255) Uşak	RFOC	Not stated	Perceived readiness of teachers, principals, school infrastructure, and parents towards change. Gender.
Kondakçı, Zayim, and Çalışkan (2010)	Causal-Comparative	Principals (167) Ankara	RFOC	Recent changes in schooling.	Categorical variables (e.g., school type, years of experience, and number of students at school).
Çalışkan (2011)	Correlational	Teachers (691) Ankara	RFOC	Recent changes in schooling	Resilience
Gür-Erdoğan and Zafer-Güneş (2012)	Correlational	Pre-service teachers (503). Sakarya	RFOC	Not stated	Categorical variables (gender, department, GPA, and type of instruction). Individual innovativeness
Zayim and Kondakçı (2015)	Causal-Comparative Correlational	Teachers (603) Ankara	RFOC	Recent changes in schooling	Categorical variables (e.g., experience, gender, in-service training, level of education, and change project). Trust in principal, colleagues, and clients.
Levent (2016)	Causal-Comparative	Teachers (348) İstanbul	RFOC	Not stated	Categorical variables (e.g., age, gender, seniority, in-service training, level of education).
Demir-Erdoğan (2016)	Correlational	Teachers (556) Edirne	RFOC	Recent changes in schooling	Knowledge sharing Distributed leadership

Note. RFOC: Readiness for Organizational Change; OC: Openness to Change; ATC: Attitudes towards Change; CT: Change Tendency CAC: Cynicism about Change.

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Table 2

Empirical Studies on Attitudes toward Change in Turkish Education Context (continued)

Authors	Study Design	Sample Size & Setting	Type of Attitude Towards Change	Change Initiative	Variables Associated
Kondakçı, Beycioğlu, Sincar, and Ugurlu (2017)	Correlational	Teachers (1649) 29-province of Turkey	RFOC	Recent changes in schooling	Categorical variables (e.g., gender, years of experience, marital status, teaching field, employment status, school size-students, school size-teachers, in-service training, child, and teaching level) Job satisfaction, perceived workload, trust in colleagues/principals, social interaction, participative management, knowledge sharing
Aslan, Beycioğlu, and Konan (2008)	Causal-Comparative	Principals (156) Malatya	OC	A hypothetical change scenario	Certain categorical variables (e.g., school level, teaching field, work experience, working region, and level of education).
Yılmaz (2010)	Correlational	Teachers (552) Ankara	OC	Recent changes in schooling	Sense of efficacy.
Demirtaş (2012)	Causal-Comparative	Primary School Teachers (407). Malatya	OC	Not stated	Categorical variables (e.g., gender, years of experience, teaching field, and level of education).
Çankaya, Yeşilyurt, Yörük, and Şanlı (2012)	Correlational	Pre-service teachers (413). Konya	OC	Not stated	Imagination Creative thinking
Çağlar (2013)	Causal-Comparative Correlational	Teachers (600) Adıyaman	OC	Not stated	Categorical variables (e.g., school type, number of teachers, and number of students). Organizational commitment.
Çalık and Er (2014)	Correlational	Teachers (599) Samsun	OC	Not stated	Change capacity; shared vision; collaboration; and personal mastery.
Çağlar (2014)	Causal-Comparative Correlational	Teachers (605) Adıyaman	OC	Not stated	Categorical variables (e.g., gender, teaching field, school type, number of teachers, and number of students). Academic optimism.

Note. RFOC: Readiness for Organizational Change; OC: Openness to Change; RC: Resistance to Change; ATC: Attitudes towards Change; CT: Change Tendency CAC: Cynicism about Change.

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Table 2

Empirical Studies on Attitudes toward Change in Turkish Education Context (continued)

Authors	Study Design	Sample Size & Setting	Type of Attitude Towards Change	Change Initiative	Variables Associated with TATC
Çakır (2009)	Causal Comparative	Teachers and Principals (345) Konya	RC	Not stated	Categorical variables (e.g., gender, age, level of education, and professional rank)
Gürses and Helvacı (2011)	Causal Comparative	Teachers (750) İzmir	RC	Not stated	Categorical variables (e.g., gender and years of experience)
Doğru and Uyar (2012)	Causal-Comparative	Inspectors (87) Principals (221) Teachers (460) Konya	RC	Not stated	Categorical variables (e.g., gender, level of education, years of experience, administrative position, and in-service training about change).
Çalık, Koşar, Kılınç, and Er (2013)	Correlational	Primary School teachers (415) Ankara	RC	Not stated	Teachers' sense of efficacy (student engagement, instructional strategy, and classroom management)
Helvacı, Çankaya, and Bostancı (2013)	Survey	Inspectors (170) Seven different regions of Turkey	RC	Not stated	Not Applicable
Kadı and Beytekin (2014)	Causal-Comparative Correlational	Teacher candidates (343) İzmir	RC	Not stated	Categorical variables (e.g., gender, class, and field of study). Scientific epistemological beliefs
İnandı, Yeşil, Karatepe, and Uzun (2015)	Causal-Comparative Correlational	Teachers (274) Principals (43) Mersin	RC	Not stated	Categorical variables (e.g., gender and professional rank) Self-efficacy
Aydın and Şahin (2016)	Causal-Comparative	Teachers (368) Manisa	RC	Not stated	Categorical variables (e.g., gender, years of experience, teaching field, level of education, school size-students, involving in a project, and type of school)

Note. RFOC: Readiness for Organizational Change; OC: Openness to Change; RC: Resistance to Change; ATC: Attitudes towards Change; TC: Tendency towards Change; CAC: Cynicism about Change.

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Table 2

Empirical Studies on Attitudes toward Change in Turkish Education Context (continued)

Authors	Study Design	Sample Size & Setting	Type of Attitude Towards Change	Change Initiative	Variables Associated with TATC
Kalman & Bozbayındır (2017)	Correlational	Teachers (402) Gaziantep	RC	4+4+4 education reform	Change-related information Dispositional resistance
Kurşunoğlu and Tanrıöğen (2009)	Correlational	Teachers (326) Denizli	ATC	Not stated	Perceived instructional leadership behaviors of principals
Baglibel, Samancioglu, Keser-Ozmantar, and Hall (2014)	Correlational	Teachers (638) Gaziantep	ATC	Not stated	Change facilitator style
Maya (2014)	Survey	Primary and Secondary School Administrators (360) Çanakkale	TC	Not stated	Not Applicable
Canlı, Demirtaş, and Özer (2015)	Causal-Comparative	Administrators (212) Adıyaman	TC	Not stated	Categorical variables (e.g., gender, teaching field, school type, level of education, years of experience, and professional rank).
Polat & Gungor (2014)	Correlational	Teachers (715) Kocaeli	CAC	Not stated	Job satisfaction Alienation Intention to quit job

Note. RFOC: Readiness for Organizational Change; OC: Openness to Change; RC: Resistance to Change; ATC: Attitudes towards Change; TC: Tendency towards Change; CAC: Cynicism about Change.

2.4. Readiness for Organizational Change

In change literature, readiness for organizational change is expressed as "readiness is reflected in organizational members' beliefs, attitudes, and intentions regarding the extent to which changes are needed and the organization's capacity to successfully make those changes in the environment" (Armenakis et al., 1993, p. 681). Differently, Clarke et al. (1996) defined it as internal and cognitive orientation of people towards organizational change. On the other hand, in OC literature, Bernerth (2004) puts the readiness to the first two steps of change phases which were conceptualized by Lewin (1947) as unfreezing, moving, and refreezing.

Readiness for change has been studied by several scholars (Bouckenooghe & Devos, 2007; Shah, 2009; Weiner, 2009) with different perspectives. The broadest study in relation to the factors affecting readiness for organizational change was done by Holt and his colleagues (2007a). In this study, the predictors of readiness are classified under four headings as; process factors meaning how change goes on, content factors referring to what change includes, context factors meaning in which conditions or settings change goes on, and individual factors that are the personal attributes of people experiencing change. All of these dimensions give chance of separate examination of different predictors in readiness issue. For instance, the research done so far indicates that some attributes of people like self-efficacy, adaptability, influencing skills (Lehman, Greener, & Simpson, 2002), organizational commitment (Kwahk & Kim, 2008), and change self-efficacy in job (Cunningham et al., 2002) are helpful to make them ready for a newly offered change.

As mentioned earlier, it is known that the individual side of change or micro level of understanding refers to members in organization. Accordingly, for the readiness of people towards changes, the individual characteristics of people should be much more analyzed for the sake of successful changes. All in all, making individuals ready at the first steps of change seems critical for the successful implementation of a change plan.

In the literature, readiness for change construct has been associated with a range of variables through classifications under four factors; individual, context, content, and process (see Table 3).

Table 3

Predictors of Readiness for Organizational Change

Individual Factors	Context Factors	Content Factors	Process Factors
Self-efficacy	Trust	Feedback	Communication
Personal Valence	Change History	Job types	Participation
Organizational Commitment	Discrepancy	Policies & Structures	Management Support
Adaptability	Organizational Culture		

Note. Reprinted from "Investigation of the relationship between teachers' readiness for organizational change and resilience," by Ö. Çalışkan, p. 22, Unpublished Master Thesis, Middle East Technical University, Ankara.

However, the empirical association of the readiness sub-factors (management support, change-efficacy, personally beneficial, appropriateness) with those variables is not much discussed while the total readiness construct is reported. In addition, the probability that the relative importance of five key beliefs steering change (discrepancy, appropriateness, efficacy, principal support, and valence) may not be equally important for change recipients was emphasized and suggested for further research (Cole, Harris, & Bernerth, 2006; Armenakis & Harris, 2009).

For these reasons, this literature review was put together with the rationale that each factor of readiness should be separately discussed since each dimension (appropriateness, management support, change-efficacy, and personal benefit) stands for a different aspect of the construct. The literature review was organized depending on the direct empirical reports of the studies or interpretations of the findings about readiness for change and positive attitudes towards change. The discussed variables associated with the factors of readiness for change are not totally exclusive for one factor, but maybe inclusive for other factors because the readiness construct has been assessed as a total scale in most studies without separately discussing the sub-scales of it. In that sense, any variable associated with readiness in the literature will potentially have a shared variance for each factor in the total scale. Therefore, some

variables can be associated with more than one readiness factor depending on the evidence derived from the literature.

2.4.1. Appropriateness

Appropriateness refers to the extent to which one feels the offered change is proper for the organization, or not (Holt et al., 2007b). The perceived degree of appropriateness by organizational members for an offered change provides a basis for the creation of readiness for change. Based on the items of appropriateness factor, as part of readiness for change scale, suggested by Holt et al. (2007b) and the defining terms (Armenakis et al., 1993; Coole et al., 2006), the perception of appropriateness is defined with the following aspects; organizational valence of the proposed change, the discrepancy between the current state and the intended state, and the perceived personal benefit.

In the extant literature, as stated by Self and Schreader (2009), employees need to be convinced that the efforts for the proposed change are really appropriate; otherwise, resisting behaviors could be observed. Being one of crucial five aspects that a change message should contain for effective organizational change (Armenakis et al., 1999; Bernerth, 2004), the perceived degree of appropriateness by organizational members appears to be quite pivotal not only for organizational change but also for readiness for change. In other words, appropriateness indicates the probability that organizational members can embrace the stated change-vision or display hesitancy for the projected change depending on the organizational and individual factors.

As a key component of change messages in determining the course of change process, change appropriateness has been regarded as a critical precursor leading the extent of buy-in by organizational members (Armenakis, Bernerth, Pitts, & Walker, 2007). The prominent book of Kepner and Tregoe, *The Rational Manager* (1965), gives us the earlier insights about the appropriateness term for change-agents (Armenakis et al., 2007). In that research, the art of management and problem-solving were explained through indicating the appropriate ways of corrective actions in different organizational circumstances, which offers implications why the perception of appropriateness is substantial for successful outcomes in change attempts.

With respect to a broader framework explaining the course of appropriateness, *social accounts* (Bies, 1987) which are defined as the managerial rationalizations and excuses for influencing the perceptions of others for a situation, is also associated with change appropriateness (Rousseau & Tijoriwala, 1999; Armenakis et al., 2007). Social account is a kind of justification or explanation through which one side (manager) can manipulate the other side's (employees) perception of "1) responsibility for an action; 2) motives for an action; and 3) the unfavorability of an action" (Sitkin & Bies, 1993, p. 353). The strength of social accounts effects the navigation of perceptions. Regarding the usage and effectiveness of social accounts, Sitkin and Bies (1993) reviewed the empirical studies and identified two key influential factors; 1) message-communicator characteristics as perceived adequacy of the account and perceived sincerity of account giver); and 2) situational factors as outcome negativity and audience characteristics. With respect to the message-communicator characteristics, the *perceived adequacy of account* (explanation) is quite similar to the *communicated change message* which affects readiness for change (Armenakis et al., 1993). With a similar perspective, the *sincerity of account giver* is like the *perceived trust in management* influencing readiness for change. In brief, the social accounts approach and its antecedents can be associated with change appropriateness, and can also be a useful guide for exploring how a particular change is perceived to be appropriate by organizational members.

In accordance with the issues explaining the appropriateness detailed above, the organizational change literature was scanned in order to explore potential variables that can be associated with this particular construct. According to a study conducted by Coole et al. (2006), change appropriateness is positively correlated with job satisfaction, organizational commitment, but negatively correlated with role ambiguity and turnover intentions. Creating the sense of feeling that the proposed change is really appropriate for the organization could be through the practices which will provide persuasive information to the organizational members about the proposed change. Given the importance of persuasive communication in change process (Armenakis et al., 1993; Armenakis & Harris, 2002), the delivery of justifications about the proposed change will launch the creation of readiness for change and supportive attitudes (Armenakis et al. 1993; Young & Post, 1993). Therefore, an effective and trust-based communication channel is likely to be pivotal

in conveying the right and convincing message to the employees, and so in contributing to the appropriateness side of readiness for change. In a study about the changes occurring in governmental organizations (McKay, Kuntz, & Naswall, 2013), it was reported that the perceived adequacy of change related communication positively predicts the perceived appropriateness of change. In particular, employees considering change-related communications as informative and timely delivered reported more positive perception of appropriateness. In the same study, it was also reported that adequacy of change related communication impacts resistance to change through the perceived change-appropriateness while the perceived participation in decision-making in change process did not have any relationship with change-appropriateness (McKay et al., 2013).

In addition, in amother study conducted in health-care sector (Paré, Sicotte, & Poba-Nzaou, 2010), change appropriateness as a key sentiment in creating readiness was found to have positive influence on the organizational members' perception of organizational readiness. In the same study, it was also reported that change appropriateness was positively correlated with top-management support, presence of effective champion which refers to individuals actively promoting personal vision for change, organizational history of change, organizational flexibility, change efficacy, and self-efficacy, but negatively correlated with organizational conflicts and politics (Paré et al., 2010).

2.4.2. Management support

Management support is defined as "the extent to which one feels that the organization's leadership and management are or are not committed to and support or do not support implementation of the prospective change" (Holt et al., 2007b, p. 239). The management support is assessed through the perceptions of employees through a number of questions addressed to them in readiness for change scale developed by Holt et al. (2007b). In that instrument, the degree of beliefs or perceptions among the employees that their senior leaders are behind the proposed change are regarded as the degree of management support. Depending on the extant literature in broader organizational change field, the variables directly or indirectly associated with management support were scrutinized and the relevant variables were provided in order to discuss the role of the selected factors for the perceived

management support by the employees. The perceived support of the leaders towards a proposed change in an organization is critical for the organizational members' generating positive attitudes towards that particular change. With regard to the dynamics which are likely to promote the sense of management support among the individuals, a number of factors were reported by the scholars. For instance, support of top management is regarded as a vital factor in creating readiness attitude among employees by empowering their commitment and emotional involvement towards change (Bouckenooghe & Devos, 2007).

In another study, it was reported that adopting a transformational leadership behavior, defined as being effective leader in transforming the followers to be receptive to the change (Podsakoff, MacKenzie, Moorman, & Fetter, 1990), is likely to reduce negative employee attitude and cynicism about change (Bommer, Rich, & Rubin, 2005). In that sense, engaging in transformational leadership behavior by the organizational leaders is likely to contribute to the perceived supportive management behavior by the employees, and thereby their readiness level. One source of empowering the perceived management support for the sake of making organizational members ready for change may be enhancing flexible policies and procedures in the organization. According to Eby, Adams, Russell, and Gaby (2000), flexible policies and procedures are positively related with the perceived organizational readiness for change. Considering this empirical relationship in the light of the vitality of change message conveyed to the organizational members for creating readiness (Bernerth, 2004), an effective communication between bottom (employees) and up (management) would be much smoother through flexible policies and procedures. Therefore, any component in an organization contributing to effective transmission of constructive knowledge between employees and managers are likely to empower the sense of management support positively. Supporting this implication, the perception of adequacy of communication about an upcoming change was positively associated with management support for the respective change (McKay et al., 2013). On the other hand, the authors reported that participation to the change process was not associated with the perceived management support for change. However, considering the prominence of effective change-message for creating readiness, one other aspect having a potent role for empowering perceived management support could be the quality of change communication and participation

in decision-making. The communication serves as the delivery mechanism in change process and is regarded as having a leading function for creating readiness (Armenakis et al., 1993; Bernerth, 2004). With a similar perspective, an effective communication between leaders and the employees is indicated as a mechanism for reducing fear and uncertainty among the employees, and thereby negative employee attitude (Vakola & Nikolaou, 2005). Based on the discussions above, initiating an effective communication channel between employees and management is likely to lead organizational members to be better informed about whether their senior leaders are committed enough for change, or not. Therefore, a well-established communication channel in an organization appears to be crucial for the perceptions of the employees, thereby readiness for change.

Building trustworthy relationship between leaders and organizational members decreases the feeling of anxiety among the employees, stemming from the uncertainty in the organization (Özmen & Sönmez, 2007). In a similar fashion, creating a trust-based relationship atmosphere is regarded as an effective strategy to reduce the employee-stress generated by the change process (Sayılı & Tüfekçi, 2008). According to Rafferty and Simons (2006), trust in organizational leadership was positively correlated with readiness for change, self-efficacy, trust in peers, participation, and flexible policies. In this regard, the concept of trust in top management appears to be an important construct for the enhancement of perceived management support among the organizational members. According to a meta-analytic review including more than 70 studies (Rhoades & Eisenberger, 2002), supervisor support was reported as a strong precursor for perceived organizational support. Based on the same review, a number of positive employee attitudes (e.g., organizational commitment, job satisfaction, positive mood at workplace, and good performance) were also stated as the consequences of perceived organizational support. In short, given the direct findings and derived implications mentioned above, a variety of variables contributing to the occurrence of positive employee attitude have to do with the perceived management support in some way. In that sense, a separate exploration of management support as part of readiness for change may provide more prolific and specific sources of explanations.

2.4.3. Change efficacy

Change-efficacy or change related self-efficacy means "the extent to which one feels that he or she has or does not have the skills and is or is not able to execute the tasks and activities that are associated with the implementation of the prospective change" (Holt et al., 2007b, p. 238). In readiness for change literature, self-efficacy was reported as an important component of conveying change message (Bernerth, 2004) and also the terminology "change-efficacy" was delineated as one of readiness factors (Holt et al., 2007b). However, the factors that could be associated with personal-efficacy within the perspective of organizational change and readiness for change were not much discussed. Bearing this in mind, this section focused on elements contributing to the development of self-efficacy in change process, thereby change-efficacy.

As a construct of social cognitive theory, self-efficacy refers to the extent of belief in one's own capacity to achieve something (Bandura, 1977). The sense of personal efficacy was influenced by the following factors; 1) mastery experience, referring to providing opportunities for individuals to enact tasks for getting experience; 2) vicarious experience, based on the belief "If someone does it; then, I can do it" or modeling someone; 3) verbal persuasion (social persuasion), the encouragement or discouragement of others for the intended task; and 4) psychological factors (e.g., distress, fear, personal attributes) (Bandura, 1977).

Considering the predictors of self-efficacy indicated above, the change-efficacy factor of readiness can be associated with some of the change-related variables studied so far. For instance, the contextual factor, successful change history was indicated as an important predictor of readiness for change (Bernerth, 2004; Bouckenooghe & Devos, 2008). A successful change history for an individual means getting a positive and fruitful experience in former change attempts, indicating the recurrence of "mastery experience" (Bandura, 1977) in that particular change attempt. Therefore, the track record of organizations with respect to their change attempts is likely to have to do with the change-efficacy belief among the organizational members. With a similar perspective, Self (2007) noted that the confidence of employees bolstering that they are successfully able to make the proposed changes, stems from the past experience. Therefore, successful past

experience in organization is likely to reinforce the perceived degree of change related self-efficacy among organizational members.

In addition, one other way of getting experience through opportunities is likely to be probable with an effective involvement of employees (participation) in job-related decisions (decision-making), which is also reported as a strong determinant of change self-efficacy beliefs (Bell & Staw, 1989). In a similar vein, labeled as the factors affecting the sense of personal efficacy, mastery experience and vicarious learning (Bandura, 1977) are indicated as examples of active participation through which the intended change-message is effectively conveyed to organizational members (Armenakis et al., 1993). Therefore, a better information about change process through involvement of individuals in decision-making will empower their sense of achieving the proposed change and thereby change related self-efficacy. Knowing the scope and requirements of an upcoming change is likely to answer the questions in mind, especially whether the employees can handle the change with their existing capabilities. Nevertheless, a recent empirical finding reported the reverse by stating that the perceived participation to the change process was not associated with change related self-efficacy (McKay et al., 2013).

With respect to the other empirical studies on this issue, the study of Cunningham et al. (2002) conducted in a health-care setting revealed that there is positive correlation between job change self-efficacy and the following variables; readiness for change, active approach to job problem-solving, and contribution (participation) to re-engineering while there exists a negative correlation between job change self-efficacy and the respective variables as; depression, job insecurity, emotional exhaustion, job interference, and shift work. Both positive and negative factors reported in this study appear to be aligned with the concept of psychological factors mentioned above (Bandura, 1977) that are influential in steering the direction of the self-efficacy as high or low.

According to a study conducted by Kwahk and Kim (2008), perceived personal competence affects readiness for change. Given the meaning of change-efficacy as the belief about personal skills (Holt et al., 2007b), one's perception in his or her personal competence can be regarded as a factor that is likely to be associated with change self-efficacy. Rafferty and Simons (2006) conducted a study in which they

empirically explored that trust in peers and senior leaders, logistics and system support, and self-efficacy displayed strong positive relationships with readiness for change.

In their longitudinal research about the role of change related self-efficacy and change related information in adapting employees to organizational change, Jimmieson, Terry, and Callan (2004) reported a number of empirical findings; 1) employees perceiving higher change related self-efficacy reported higher degrees of job satisfaction, psychological well-being, and client engagement; 2) change-related self-efficacy served as a full mediator for the positive relationship between information provision and both job satisfaction and client engagement; 3) change related self-efficacy was associated with reduced perception of work stress, and so supporting client engagement, and 4) change related self-efficacy in the early phase of change implementation served as stress-buffering mechanism by inhibiting the negative effects of role ambiguity, which in turn supported the better adjustment of employees to change process in the subsequent stages.

In a recent study exploring the relationship between the adequacy of communication in change process and change-efficacy, it was reported that the perceived change-related communication positively predicted change-efficacy (McKay et al., 2013).

2.4.4. Personal benefit

Personal benefit (personal valence or personally beneficial) is delineated as "the extent to which one feels that he or she will or will not benefit from the implementation of the prospective change" (Holt et al., 2007b, p. 238). Personal valence was regarded as one of substantive factors for an effective change message (Armenakis et al., 1999) because individuals seldom reject change having apparent personal benefits (Self, 2007). Vakola and Nikolaou (2005) carried out a study about how some individual factors are influential in employee attitude towards a proposed change. They reported that there exists a negative correlation between occupational stressor and attitudes towards change, revealing that individuals with higher stress level reflect decreased commitment and increased reluctance to embrace organizational interventions. As the most common reason for the job-related stress among the employees, bad work relationship is reported. Depending on the

definition of the "personal valence" and the items of the construct, the scope of personal valence is framed around whether the employees personally become happy to be in that organization and what kind of extrinsic and intrinsic benefits will happen as a result of the change process (Bernerth, 2004; Holt et al., 2007b). In that sense, the low level of occupational stress, increased commitment, and good work relationships are likely to contribute to the development of the perceived personal benefit from the organization, thereby readiness for change.

A supportive finding reported by Madsen, Miller, and John (2005) revealed that organizational members' social relationships in the work-place are associated with readiness for organizational change, indicating that the positive attitudes of peers, subordinates, and managers are likely to make the organizational setting more encouraging for individual involvement in change attempts. Such positive organizational climate and social relatinships are likely to lead organizational members feel happy there, thereby contributing to the personal valence of the organizational setting. One important direct finding reported by a recent study (McKay et al., 2013) is that the adequacy of change related communication positively predicts the sense of positive personal valence while participation to decision making was not associated with personal valence. Within the same study, one other finding was that organizational members having higher affective commitment towards their organizations perceived the proposed change as personally beneficial (McKay et al., 2013).

2.5. Cognitive Dissonance Theory

The theory of cognitive dissonance has gained great popularity in social psychology with a considerable attention of the scholars in the last half century (Cooper, 2007). The concept of cognitive dissonance was first conceived by Festinger (1957) and delineated as a psychologically uncomfortable state emerging as a result of opposing cognitions in human mind.

In relation to how cognitive mechanisms in human mind serves, it is explained that individuals come across with new conditions along with their pre-existing beliefs. If the previously held beliefs do not have any contradiction with the new information, a sense of supportive feeling is experienced through newly experienced information

because of the mutual harmony with the prior knowledge. This state is alluded as consonance in which there is no incongruity or opposing situation between the new and old order in human mind. However, if this particular cognitive process ends up with a reversing state, a sense of disharmony occurs between the new information and previously held beliefs and gives rise to a discomfort and unpleasant condition creating inconsistency in mind, which is called cognitive dissonance (Festinger, 1957).

The degree of dissonance in cognitions depends on the magnitude of inconsistency between the two conflicting beliefs and also the importance of the beliefs (Cooper, 2007). The greater the discrepancy between two beliefs is, the more tension or discomfort an individual experience. Accordingly, both the existence of dissonance and consonance are potentially playing role in steering the future actions, attitude, and belief of people towards the newly encountered situation.

At the threshold of a decision or instability due to the arousal of dissonance, as illustrated in Figure 3, people have three options to follow. One is changing beliefs, another is changing actions, and the other is changing perceptions about actions. Thereby, the contradictions can only decline by yielding stability (consonance) in mind. The more difficult the decision is, the greater the dissonance becomes.
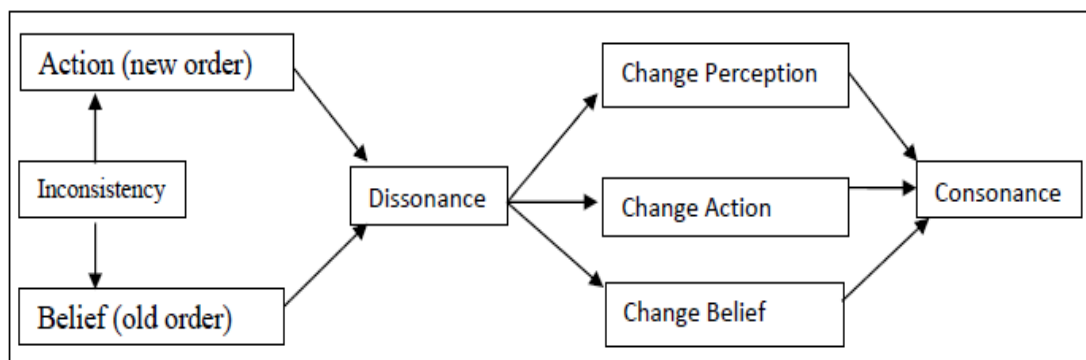
Figure 3. The development of cognitive dissonance. "Adapted from A Theory of Cognitive Dissonance," by L. Festinger, 1957, Stanford University Press.

Cognitive dissonance states that people desire to be consistent in their attitudes and behavior, so they mostly look for a stability to feel minimum dissonance (Burns & James, 1995). Therefore, the consonance or stability is desirable condition in order to feel relief. According to Brady, Clark, and Davis (1995), the extent of dissonance depends on the following matters; the significance of issue, the number of

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disagreeing or agreeing persons about the issue, the attractiveness of the disagreeing person, and the believability of disagreeing person. Hence, the reformulation of decisions is subject to several dynamics. The reduction of dissonance can be done in four ways; 1) avoiding the decision, 2) making the chosen alternative more attractive, 3) lessening the desirability of the unchosen alternative, and/or 4) creating more resemblance between alternatives.

In relation to the history and progress of this theory, it has a story of more than 50 years, but the varying discussions and applications in different fields continue since it is abstract to define and state (Harmon-Jones & Harmon-Jones, 2007). Since the emergence of the theory in 1950s; it has been refined and applied in various areas with differing frameworks. It firstly focused on psychological processes of people in terms of how attitudes and behavior could be associated with rewards and then how these behavior and attitudes could lead cognitions (Festinger, 1957). However, Cooper (2007) criticizes relating the cognitive dissonance issue with behavioral context of learning theory in which reward and punishment are seen as the prominent factor for changing individual (Skinner, 1953). As a result, having an active field of study more than five decades, the cognitive dissonance has a dynamic source of interpretation (Cooper, 2007). Even if there is not a consensus about it, the application of it has been especially seen in a wide array of issues. For instance, it has been cited that dissonance processes may decrease prejudice (Leippe & Eisenstadt, 1994), increase water conservation (Dickerson, Thibodeau, Aronson, & Miller, 1992), increase purchasing of condoms (Stone, Aronson, Crain, Winslow, & Fried, 1994), reduce hunger and thirst (Brehm & Cohen, 1962), and reduce pain (Zimbardo, Cohen, Weisenberg, Dworkin, & Firestone, 1969). On the other hand, the cognitive dissonance issue is classified with some paradigms, each of which differently explains the process and nature of dissonance with some experimental studies.

2.5.1. Paradigms in cognitive dissonance

The extant literature in cognitive dissonance field offers a range of studies using dissonance in order to explain attitude change for various topics mentioned above (e.g., marketing choices, health problems, educational issues). Based on the

empirical studies since the emergence of the theory in 1950s, a number of paradigms have come into prominence, explaining the function of the concept under different circumstances and with varying perspectives. Considering the cognitive dissonance process is not an explicitly and entirely observable course of action and is interpreted depending on some indirect (state of arousal; e.g., Brehm & Cohen, 1962) and direct indicators (affect measure; e.g., Eliot & Devine, 1994), it is not surprising to come across a number of models or paradigms explaining the occurrence of the cognitive dissonance as; belief disconfirmation paradigm, induced-compliance paradigm, free-choice paradigm, effort-justification paradigm, hypocrisy paradigm, and misattribution paradigm. The respective paradigms were explained and discussed in the subsequent sections in order.

2.5.1.1. *Belief disconfirmation paradigm*

Belief disconfirmation paradigm is explained with dissonance arousal state when people are confronted with information incongruent with their already held beliefs. If the experienced cognitive paradox (dissonance) is not reduced at such a situation, the dissonance may cause misinterpretation, denial, or rejection of the information, then individual seeks support from others who share the belief, and attempt to persuade others to admit the belief (Harmon-Jones, 2002). The first reference of this paradigm was exemplified within a story in the book, *When Prophecy Fails* (Festinger, Riecken, & Schachter, 1956). In the story, members of a cult believed a prophecy in which a global disaster was coming up soon, so they had to take precautions in order to save the earth. They met at a certain place and waited the prophecy to become real, but nothing happened and destructed the world. At that moment, they experienced a big cognitive conflict (cognitive dissonance) because of their strong beliefs about the issue. In order to resolve the severe situation; they started to believe that the aliens had given the Earth a second chance, and so the group was now empowered by increasing their faith to their beliefs despite the failed prophecy. This story indicates that an individual can continue to defend a belief with a whole heart even if the observable facts prove the opposite. Even, the degree of accepting the belief and persuading others may not be weakened but strengthened owing to group dynamics.

With respect to the occurrence of this process, Festinger and his colleagues (1956) point out that 5 circumstances must be in place for the individuals to get more passionate about their beliefs about a prophecy even if there exists an evidence that the belief is not correct;

1. There must exist a strong faith to the belief and the belief must bear some applicability for action by the believer.

2. The believer must deeply commit himself to the conviction and take a significant action which is tough to unravel because of the importance of the belief. With a broader description, how much prominent and hard the actions turn into, the engagement in the belief by the individual increases in that extent.

3. The belief must have enough grounds relevant to the real world without any ambiguity; thereby events could unarguably negate the belief.

4. An unquestionable disconfirmation must come into existence and be acknowledged by the individual defending the belief.

5. For the sake of maintaining the belief, and persuading or proselytizing nonmembers that the belief is accurate, the believer has to get social support.

The way of reducing dissonance in this paradigm happens through belief intensification rather than accepting the new condition like in other paradigms of dissonance because, according to the believers, the holy attributes ascribed to the belief must not be shattered, so the alternative way of moving away from the negative result was to affirm the belief through other rationales.

Another empirical study supporting this type of dissonance arousal was performed with a group of undergraduate students predominantly affiliated with Christian background. In the experiment, the researchers tested whether belief disconfirmation elicited a reduction in dissonance related-negative affect. The participants were given a newspaper article to read a news reporting that an 11-month old infant was killed by shooting in the arms of her grandmother while they were praying for protection from a similar case (shooting of someone) that happened two days ago. In

order to attract the attention of the participants much more to this tragic coincide, the following quote was also added to the experiment; "Some people would think that Rev. Williams's (i.e., the grandfather's) continued belief and trust in a good God is naive and misguided. What do you think?" (Burris, Harmon-Jones, & Tarpley, 1997, p. 21). Through this experiment, the individuals were challenged in relation to the inconsistency between their holy beliefs and the tragic outcome. As a result, they reported that the greater faithfulness towards God among the participants, after exposure to the belief-menacing newspaper article, was associated with reduction in dissonance related affects (discomfort and agitation) (Burris et al., 1997). Also, based on similar previous studies (Abelson, 1959; Batson, 1975), the researchers interpreted that the old belief was verified again and intensified through transcendence or superordinate values even if a sense of disconfirmation had happened while reading the newspaper. Briefly, the transcendence was regarded as having association with reduced cognitive related negative affect. This paradigm has not attracted the attention of the scholars as much as the "induced-compliance" and "free-choice" paradigms.

2.5.1.2. Induced-compliance paradigm

As expressed above, dissonance occurs at the time of a contradiction, resulting from the opposing conditions between the old belief and the new condition. At the time of dissonance experience, a way of providing consonant cognitions to individuals for reducing dissonance may also be possible with the presence of reward or threat, which are used as justification tools in order to change the belief or attitude. This form of creating dissonance and then reducing it is called induced-compliance paradigm (Harmon-Jones & Mills, 1999).

The induced-compliance paradigm (originally forced compliance) was experimentally tested by Festinger and Carlsmith (1959). In this experiment, a number of students were asked to spend one hour on a boring and dreary task. After they had completed the task, the experimenter wanted them to talk about the tasks by persuading others that the tasks were enjoyable, not boring. In addition to this, as a favor for their efforts, some of the participants were given $1, some were given $20, and the others (control group) were not asked to perform such a task. After all these steps, all the participants rated the tasks. It was found that the group who were paid

1$ rated the tasks more positively than the other ones in the 20$ group and control group. Festinger and Carlsmith (1959) explained this situation with cognitive dissonance theory since there were conflicting cognitions. That is, as opposed to the reality that the tasks were boring, participants tried to act as if it had not been so. Such an inconsistent condition made them internalize one of the ways (real or unreal). Since they were given certain amounts of money as a favor for their responsibility of persuading others, they were induced to behave in the opposite direction by avoiding their actual belief. However, the ones with $1 rated the tasks much more than the ones with $ 20 because twenty-dollars was seen as an external justification for their behavior. On the other hand, one-dollar did not seem to be any external benefit or justification for participants because the ratings of this group about tasks increased in spite of the reality. At the end of this experiment, the researchers concluded that if someone is urged to do or say something which is contrary to his private opinion, then there will be an inclination to change his private idea in order to make the concealed idea consistent with the one said or done. Besides such a conclusion, they also stated that if the pressure increases, the tendency mentioned above will be lower. In other words, it was seen that a large reward produced less opinion change than a smaller reward in the study.

One other experimental study done by Aronson and Carlsmith (1963) also supported Festinger's findings in terms of explaining induced-compliance paradigm. The researchers performed an experiment with 22 preschool children. In the experiment, children were gathered in a room with some toys. Then, the experimenter said to the half of the children not to play with certain forbidden toy; otherwise, there would be severe punishment while the other half were also said not to play with the similar toy, but the threat was milder for this group. Later, all children were said to play with the toys freely. However, the results showed that the mild punishment group seemed less likely to play with toys than the other group. The researchers interpreted that the mildly threatened group made a sensible justification about why the toys were not worth playing while the other group could not do such a thing because of severe threat.

2.5.1.3. *Free-choice paradigm*

Free-choice paradigm is explained with the choice of some alternatives offered to people. At the time of a decision-making, the positive features of the rejected alternative and the negative features of the chosen alternative were dissonant with the decision while the positive sides of the preferred alternative and the negative sides of the vetoed alternative are to become consonant with the decision (Harmon-Jones & Mills, 1999). Therefore, dissonance reduction following a decision can be done by way of eliminating negative aspects in the chosen alternative or positive aspects in the vetoed alternative. This way of manipulation for the desirability of the target alternative or undesirability of the other alternative was identified as "spreading of alternatives". In the experimental literature, this is called as the free-choice paradigm (Harmon-Jones & Mills, 1999).

In the extant literature, the experiment of Brehm (1956) clearly reveals how free-choice paradigm works. In his experiment which was actually showed as if it had not been a dissonance experiment, but consumer research; Brehm (1956) asked for participants to rate eight home appliances in terms of quality, usefulness, and attractiveness, with a rating scale from "extremely desirable" to "definitely not at all desirable". Afterwards, the participants were informed that they would be allowed to choose one of two alternatives as gift or payment for participation in the research. However, the two alternatives offered to the participants were secretly arranged by the experimenter in a way to create certain degrees of dissonance in the minds of participants. The offered pairs of appliances were put together in terms of highest rates and lowest rates in order to create different dissonance conditions. For example, in high dissonance group, two alternatives were chosen from the highest scores of ratings (i.e., at about 5, 6, or 7 on the 8-point scale). In a similar fashion, the lowest ratings were also chosen for the low dissonance group. In addition to these, one control condition was established by allowing some participants to choose just one item among the alternatives instead of having to choose between two. This control group was not thought as either dissonance group.

After all these steps, some of the participants from both high and low dissonance groups read some material about the products they had previously chosen while some of them did not read anything. Also, the control group just read about their chosen products. Afterwards, they all evaluated the products again with the same

desirability scale. The changes between the first and second ratings of the same products in terms of desirability became a clue for dissonance reduction among individuals. That is, if the firstly chosen with the highest rating is again rated higher than the other (the second highest rating), then this is an evidence that the most desired one is reinforced in the second round against the second alternative which is also desired as nearly as much as the first chosen alternative. By this way, the second one becomes less desirable.

The results of the experiment revealed that raising the desirability of one product with some supportive, positive, and new information seemed possible. In other words, participants who read material much more desired the products about which they gained extra information than the first rating condition. Accordingly, such an attempt caused dissonance reduction for someone who was in dilemma to choose one of two alternatives that were closely desired in the first rating. The other implication from the findings of the experiment was noted as; the greater the magnitude of the dissonance and the pressure were, the more closely desirable the alternatives were (Brehm, 1956).

In another experimental study by Egan, Bloom, and Santos (2010), similar results were obtained from four-year-old children and capuchin monkeys. In the experiment, children and monkeys chose two similar objects without paying attention to the object's identities. Afterwards, they chose between a third similar object and the rejected object of the first selection. It was observed that the rejected alternative was not chosen by them, so the rejected one was devalued. Hence, it was concluded that process of making a choice affects preference.

2.5.1.4. Effort-justification paradigm

Dissonance arousal occurs once being involved in an undesirable activity while seeking for a desirable thing. The more unpleasant effort an individual has to engage in for getting the target outcome, the more dissonance that individual will feel. One alternative way of reducing dissonance at that moment is to exaggerate the desirability of the outcome, adding consonant cognitions. These theoretical ideas were named as effort justification (Harmon-Jones & Mills, 1999).

In effort-justification paradigm, it is thought that individuals showing effort for something tend to value the issue more highly than the persons who exert less effort. This was experimentally reported in the study of Aronson and Mills (1959). The researchers randomly established three groups of women who would join a discussion about dynamics of group discussion and the topic of the discussion would be sex. Each group was randomly assigned to three experimental conditions (severe initiation condition, mild initiation condition, and control condition). In severe one, each participant had to read some embarrassing material about sex subject, mild ones were required to read less embarrassing material, and the members of the last group did not read anything. Afterwards, all of them just listened to a tape recording as if an ongoing discussion about the same issue had been on the stage because they could not see the real setting of the discussion which was actually just a tape recording and the members of three groups listened to them from headphones and reached their voices with the microphones. However, the discussion was rather banal and dull as opposed to the exaggerations of the experimenter. Then, the participants were asked how they found the discussion in terms of liking or not, and the results showed that the group with severe pre-requisite conditions much more significantly valued the discussion than the groups with mild conditions and no-condition (control group). This situation was explained with an implication from Festinger's (1957) theory of cognitive dissonance. That is, the severe group exerted much effort in order to gain membership to the discussion group, the employed struggle made the process costly and valuable in mind since a justification in mind was needed while answering, "Why did I experience such a pain or difficulty in order to join a rather dull and banal discussion". Otherwise, an unpleasant experience without any gain may trigger discomfort or dissonance in mind. Therefore, reducing dissonancy in cognitions becomes essential for people to overcome such a discomfort resulted from dissonant cognitions.

At this point, there are two options to reduce dissonance, one is to exaggerate the value of discussion in spite of the efforts, and the other is to undervalue the magnitude of the effort by convincing that the required conditions were not so much tiring compared with the worthiness of discussion. This situation is called effort-justification process in the cognitive dissonance literature.

2.5.1.5. Hypocrisy paradigm

Dissonance occurs through the undesirable actions leading people to question their self-concept or moral values and thereby to feel guilt due to acting upon the induced message rather than the already held belief, which is the course of action for the hypocrisy paradigm developed by Aronson (1999). This type of explanation for dissonance occurrence differs from Festinger's early formulation in which just holding discrepant cognitions would be enough for the manifestation of dissonance. Aronson (1999) advocates that the sense of self should be threatened to a certain extent for generating discomfort (dissonance); otherwise, the case would be interpreted as a strange phenomenon by the individual. The conception of Aronson is also consistent with the role of issue-importance in the arousal of cognitive dissonance (Voisin & Fointiat, 2013). In that, the researchers pointed out that the dissonance creating topics addressed to the individuals should carry some grounds relevant to their personal world otherwise the issue would not be paid much attention and become negligible without creating dissonance climate.

2.5.1.6. Misattribution paradigm

With regard to the assumptions about the occurrence and consequences of cognitive dissonance, misattribution paradigm was also proposed, based on the experiment of Zanna and Cooper (1974) in which the participants reflected differing attitude change after a counter-attitudinal essay writing. The differing orientations among the groups (three groups) were explained with the pills (placebo) which were given to the participants beforehand by saying that the pills would cause no side effect, relaxation effect, or tenseness with respect to the assigned group. The differing attitude change among the groups were rationalized on the assumption that some participants seemed to have attributed their uneasiness to the pill while some did not although none of the pills had bear any negative or positive effects. In this experiment, the placebo effect caused a dissonance state as assumed by the researchers; therefore, some of the participants behaved like they had been affected by the pills. Some other models explaining cognitive dissonance experience were Action-Based Model (Harmon-Jones, Amodio, & Harmon-Jones, 2009); Self-Standards Model (Stone & Cooper, 2001); New Look (Cooper & Fazio, 1984); and Self-Perception (Bem, 1967).

2.5.2. Reduction of dissonance

Dissonance reduction is expected step during the course of attitude change, but the strategies employed under differing paradigms have been extensively discussed. One strategy for reducing dissonance was suggested as trivialization (Simon, Greenberg, & Brehm, 1995), in which the dissonance creating elements are being devalued in terms of importance, so the sense of inconsistency is decreased. However, Voisin and Fointiat (2013) interpreted their experimental findings as when the particular topic had some normative standards and was primed (attached more importance) by the person within a free-choice setting, trivializing the issue did not work for reducing dissonance. Instead, overestimation of the research topic worked as a reduction strategy because the participants felt they were fulfilling a vital role in supporting an honorable research (the experiment) for the sake of behaving according to normative norms accepted by the society even if the exposed conditions were not personally desirable for them. The rationale behind this attitude was explained with the fact that toleration of discrepancy through overestimating the research came into effect in order to protect self-worth and self-integrity (Aronson, 1999; Thibodeau & Aronson, 1992) rather than reducing dissonance.

With respect to the discussions about the creation and reduction of dissonance, the experimental study of Wakslak's (2012) also suggests some implications. In the study, it was reported that the degree of construal-level as high or low, which refers to representing features of a case, had linkages with the role of issue-importance in dissonance related attitude change. That is, an object's degree of importance to an individual may not warrant the motivational direction in a context, so individuals ultimately act upon their foremost concerns about the issue. For instance, voting activity may be interpreted as taking part in democracy for high-level mindsets, but the same activity may only be associated with just ballot or voting machine for low-level mindsets. Specially, low-level mindsets will not perceive the voting activity as a democratic task as much as high-level mindsets will.

2.5.3. Application of cognitive dissonance in different fields

Generating and resolving cognitive dissonance seem to have great driving force on people's attitude and behavior in a number of areas like marketing and consumer

behavior (Gbadamosi, 2009; Lindsey-Mullikin, 2003; Sweeney, Hausknecht, & Soutar, 2000), psychotherapy and health (Cooper, 2007), and pro-social behavior (Fried & Aronson, 1995) when the relevant literature is reviewed. In addition to these fields, encouraging dissonance for promoting new situation is so often used by legislators, special interest groups, bureaucrats, etc. By this way, "scaring behaviors (dissonant individuals) are bought or rented" by manipulator for the sake of new condition. Such an atmosphere is constructed through recommending expertise, bringing some popular associations to the front, disseminating involuntary information with media, all of which support the new one, but discredit previously held belief (Brady et al., 1995). By this way, increasing dissonance becomes a really good exchange strategy to make people uncomfortable with their prior choices because the newly offered choice could be more preferable with such a give-and-take condition. However, in addition to the attractiveness of new position, the magnitude of experienced dissonance is vital in order to easily pass to the new condition.

Cognitive dissonance can be used in education sector by decision-makers or law-makers to their self-interests (Brady et al., 1995). As stated in the book of Aronson, *The Social Animal* (1995), cognitive dissonance is seen as a powerful impact on student learning and motivation. Even, the accommodation term of Piaget (1952) also supported that experiencing and reducing dissonance seem impulsive force behind learning process because people experience an accommodation referring the process of altering one's existing schemas, or ideas, as a result of new information or new experiences. In one study (McFalls & Cobb-Roberts, 2001), how presenting cognitive dissonance theory and thus creating an awareness could be helpful during instruction was experimentally shown. In this experiment, there was a big and largely white public university whose students were required to take a course on diversity issues. However, they experience resistance to diversity issues because their existing beliefs and understanding do not comply with the course content. Therefore, cognitive dissonance was used as a mechanism in the instruction on diversity issues in order to reduce resistance of students towards diversity matters. In the experiment, 124 undergraduate students were divided into two groups, one of whom took supplemental instruction about cognitive dissonance theory while the other group did not. Afterwards, they were required to read an article uncovering several hidden privileges about white people in life. When the reactions of two

groups to the article were analyzed, it was seen that the group taking cognitive dissonance instruction was more aware of the privileges than the other one. As a conceptual change strategy, cognitive dissonance has been integrated into the processes of learning, especially constructivist models. In that, through several educational interventions, students were confronted with conflicts between their prior beliefs and new information, and by this way, cognitive dissonance arousal in the minds of students was established in order to lead them to new, accurate information that will resolve the conflict (Guzzetti, Snyder, Glass, & Gamas, 1993).

Of the literature and the applications of cognitive dissonance in diverse fields given above, it can be concluded that cognitive dissonance has been used as mechanism to steer attitudes and behavior of people in the desired direction by experimenters, scholars or other appliers. Accordingly, attitude change and types of attitudes towards change in organizational change literature may have some commonalities with cognitive dissonance in order to provide some insights for us to understand attitudes toward change within perspective of cognitive dissonance.

2.5.4. Measuring dissonance

The greater part of dissonance studies has reported that the dissonance experience has motivational properties leading individuals to seek for consonance that is the new order, and the upcoming attitude change immediate after the counter-attitudinal information was recognized as an evidence for reduced dissonance. However, the actual magnitude of experienced dissonance could not be calculated through this assumption without having a measurable construct (Elliot & Devine, 1994). In order to suggest a direct way for this gap, a *cognitive dissonance thermometer* was suggested by Elliot and Devine (1994). In this thermometer, the discomfort index including the words; *uncomfortable, uneasy, and bothered* were generated as self-report items to measure the level of dissonance. In a wide range of studies, the scale was used in order to measure the degree of discomfort felt (e.g., Chait, 2010; Matz, Hofstedt, & Wood, 2008; Simmons, Webb, & Brandon, 2004). The psychometric qualities and Turkish adaptation of the scale was presented in the methodology part.

2.5.5. Cognitive dissonance studies in Turkish context

Cognitive dissonance studies in Turkish context appears to be limited with some conceptual discussions about the theory and a few empirical studies. The scholars from different disciplines such as marketing, finance, and religion utilized the theory to explain human behaviors within the perspective of their own fields. Regarding the studies in Turkish context, one important point to note is that theory of cognitive dissonance was not adequately discussed with respect to a number of paradigms and studies reported in the last 60 years and scholars seemed to rely on the definition of it without discussing how it occurs and how the occurrence of dissonance means for their own discussions.

In relation to the studies obtained from Turkish literature, Arslan-Ayazlar (2011) examined how web site quality affects the cognitive dissonance in electronic purchase and developed a cognitive dissonance scale as part of the study. The findings of the study revealed that lower dissonance was associated with higher reusage of web sites. That is, decreased dissonance orients individuals to prefer electronic purchase web sites much more. In addition, Hamurcu and Aslanoğlu (2016) investigated the impacts of behavioral biases in finance on the employees in the information and communication technology sector as part of a scale development study. The authors adopted cognitive dissonance as one of the propostions explaining behavioral biases in finance. In his conceptual discussion about poverty, human dignity, and religion, Macit (2014) stated that poverty could be a source of discomfort (cognitive dissonance), harming human dignity, and alleged that religion can function as an alleviating mechanism for the felt cognitive dissoanance.

In Turkish context, the cognitive dissonance theory was used by different scholars for explaining human behavior, but the findings and discussions of scholars are disconnected from the concepts and paradigms of cognitive dissonance theory. In view of the literature in Turkish context, cognitive dissonance field seemed not to attract the attention of scholars as it has been studied by a number of scholars and with numerous paradigms.

2.5.6. Variables associated with cognitive dissonance

In the existing literature, the studies have extensively focused on how the attitude change occurs through creating dissonance rather than which kind of variables have

associations with the cognitive dissonance. Yet, in a few studies, such variables were reported. The relationship between self-esteem and cognitive dissonance seems controversial because of the varying interpretation of dissonance occurrence and the role of self-concept. From the perspective of Aronson's self-consistency model of dissonance (1999), individuals having higher self-esteem experience more dissonance than the ones having lower self-esteem while behaving counter-attitudinally because the threat of self-concept will be felt much more among the high self-esteem individuals, challenging the statue of the self or rationality while the low self-esteem individuals are expected to feel less challenge or threat against their self-concept, resulting in lower degree of dissonance. However, the opposite perspective (Steele, 1988) advocates that high self-esteem serves as a protective factor by eliminating the negative feeling (following the cognitive inconsistency) and guarding the self-image. On the other hand, depending on the observation of attitude change upon a counter attitudinal behavior, self-esteem was associated with dissonance, only when the self was primed (Stone & Cooper, 2001).

Another variable moderating psychological discomfort (cognitive dissonance) is extraversion (Matz et al, 2008). With respect to the experiences of introverts and extroverts from the same experiment, introverts experienced much more dissonance related discomfort compared to the extraverts. This was explained with the implication that introverts are likely to be more sensitive to an arousal state or negative emotion while extraverts are likely to have less uptight nervous system.

Self-monitoring as a personality trait refers to how people observe and regulate their expressive behavior in differing conditions (Synder, 1974). Self-monitoring was reported as a variable having a moderating role in cognitive dissonance experience (Sastre, 2014). In a similar fashion, it was also informed that low self-monitors who are identified as having less adaptive dispositions under various social conditions, experienced much more cognitive dissonance than high self-monitors (DeBono & Edmond, 1989; Snyder & Tanke, 1976).

Defined as self-kindness and mindfulness towards ourselves without judging failures, self-compassion (Neff, 2003) was also studied with respect to the association with cognitive dissonance, but the experimental finding resulted that self-compassion did not have moderating power in cognitive dissonance experience

(Sastre, 2014). The study carried out by Brannon, Tagler, and Eagley (2007) suggests some implications for understanding the role of attitude strength in cognitive dissonance experience. In their experiment, the researchers reported that individuals holding strong attitudes were resistant to being exposed to information which is counter to their already held attitudes. That is, people with higher attitude strength will be likely to experience less cognitive dissonance and attitude change following a counter-attitudinal condition. This relationship also supports the implication that individuals having low level of readiness towards a particular change will be reluctant to accept an opposing change proposal and experience less cognitive dissonance following counter-attitudinal information.

Individuals having higher level of psychopathic traits felt less cognitive dissonance than the ones having lower level of psychopathic traits in an induced compliance experimental setting. This finding was interpreted with the assumption that psychopathic traits would carry less sense of guilt at the time of behaving opposed to the acceptable norms or moral values, so their level of discomfort or dissonance ratio would not increase while having to act upon the forced condition, but the ones with lower level of psychopathic traits would feel more guilt or shame while opposing the actual or correct issues (Murray, Wood, & Lilienfeld, 2012).

The variables associated with cognitive dissonance above suggest that individuals having positive or strong personality traits seem to feel the adverse conditions aroused through dissonance experience less. From this point of view, people identified as resilient can also be thought to have strong personality traits to overcome obstacles and stressful situations, depending on the defining terms of resilience (Block & Kremen, 1996; Panksepp, 2014). The cognitive adaptation theory (Aspinwal & Taylor, 1992) supports this view. The basis of cognitive adaptation theory is that personalities having highest degree of well-being at the time of stressful conditions are identified as the ones who "have high levels of self-esteem (e.g., high sense of self-worth), optimism (e.g., high positive outlook towards life), and perceived control (e.g., a view of life and situations as being under personal control)" (Taylor & Brown, 1988, as cited in Wanberg & Banas, 2000, p. 133). The respective variables were regarded as primary individual differences making easy the course of adjustment, coping, and general contentment at the time of stressful

circumstances (Taylor & Brown, 1988). In addition, these positive personality traits together were regarded as resilient personality (Major, Richards, Cooper, Cozzarelli, & Zubek, 1998). Based on the arguments above, the greater degree of resilience (self-esteem, optimism and perceived control) is likely to inhibit the dissonance related discomfort by way of eliminating the negative feelings. Supporting this argument, Festinger (1957) described the state of cognitive dissonance as a negative condition like hunger, frustration, instability.

In relation to the relationship between resilience and cognitive dissonance, a different view can also be derived from the self-standard approach in the field of cognitive dissonance. According to Stone and Cooper (2001), the self-standard model proposes "the standard used to interpret and evaluate the meaning of a given behavior determines the role of the self and self-esteem in the process of dissonance arousal" … "the role of the self in dissonance arousal and reduction is a function of the type of self- attributes and standards made accessible in the context of a discrepant behavior." (Stone & Cooper, 2000, p. 4). Specifically, the context-based interpretations of people about an issue generating dissonance define the role of self-relevant thoughts and self-esteem. Therefore, making specific predictions between cognitive dissonance and self-relevant thoughts seems inappropriate in accordance with the self-standards of people. Self-esteem was regarded as a component of resilience personality trait (Major et al., 1998). Based on this explanation, it can be inferred that the potential relationship between resilience and cognitive dissonance is open to some confounding variables (self-standards) that should be explored. In the following section, a brief literature review was provided to explain resilience more.

2.6. Resilience

A prominent definition of resilience is delineated as the ability to rebound from hardship and adversity and to adaptably adjust to fluctuating demands (Block & Kremen, 1996) or the ability to maintain a self-control together with creative problem solving manner at the time of repeated changes (Panksepp, 2014). Regarding the definition of the construct within the framework of teacher resilience, it was conceptualized as "a quality that enables teachers to maintain their commitment to teaching and their teaching practices despite challenging conditions and recurring setbacks" (Brunetti, 2006, p. 813). The operational definitions of

resilience show variation with respect to the field studied. Therefore, the extensive use of the concept in different fields make the construct have pluralistic definitions along with being a popular subject of interest. However, the studies of teacher resilience have recently popularized (Beltman, Mansfield, & Price, 2011). Resilience is regarded as positive personality trait (Taylor & Brown, 1988, as cited in Wanberg & Banas, 2000).

Considering the conditions (trauma, disaster, health problems, adolescent problems, work-place problems, family problems, etc.) through which the resilience term is associated, the defining boundaries of the resilience seems so wide. Therefore, understanding the concept could be easier to classify the factors associated with resilience. In the extant literature, two main factors were suggested to explore the resiliency of individuals; risk factors and protective factors. Resilience emerges through the dynamic relationships between protective and risk factors (Benard, 2004). The relative function of risk and protective factors in resilience process is illustrated with a framework through steps in Figure 4. This organizational framework displays four domains of influence; "the stressor or challenge, the environmental context, individual characteristics, and the outcome", and two transactional points between two domains; "the environment and the individual and the individual and choice of outcomes" (Kumpfer, 1999, p. 183). With regard to the domains of influence, challenger or stressors emerge first and produce a disequilibrium in the homeostasis of the individual, the environmental context contains a balance and interaction of the existing risk and protective factors leading the on-going process, the individual characteristics include attributes needed to be successful in developmental tasks in the process, and the outcome ends up with either positive or negative adaptation. The transactional process first comes as the environment and individual, the interaction of external and internal self-characteristics, and then the individual and outcome, the finalization of the process as either successful or unsuccessful adaptation.
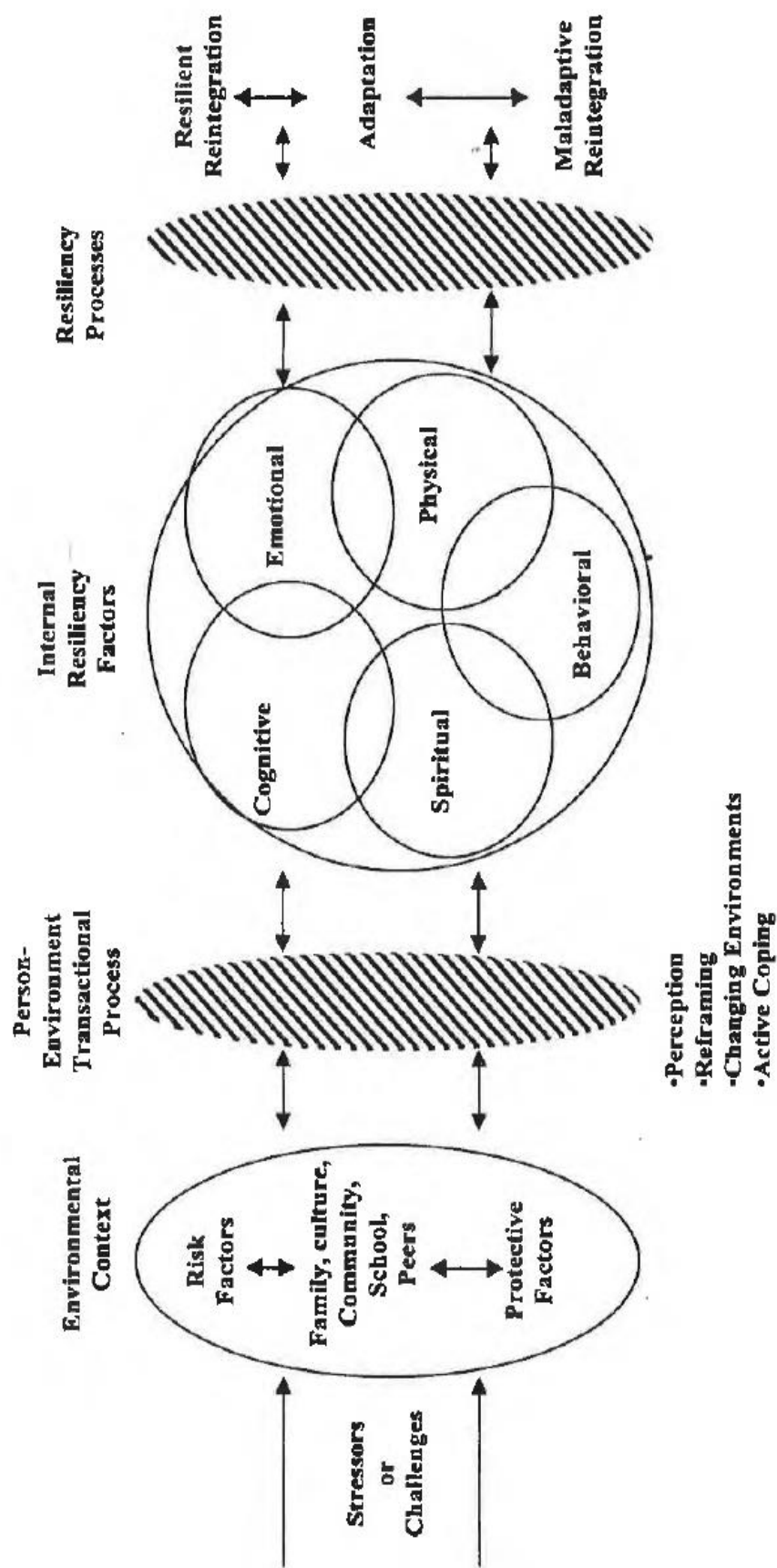
Figure 4. Graphical representation of resilience process. Adapted from "Resilience and development: Positive life adaptations," by M. D. Glantz & J. L. Johnson, 1999, p. 185. New York, NY: Kluwer Academic/Plenum Publishers. Copyright 1999 by Kluwer Academic/Plenum Publishers (now Springer Inc.).

2.6.1. Risk factors

Any contact with risky circumstances refers to the possibility of experiencing negative outcomes (Kirby & Fraser, 1997). The relative factors labeled as risky enabling individuals to be non-resilient depend on the target population (child, teen, adult, or old) and the setting (school, hospital, work-place, etc.). For instance, premature birth (Bradley et al., 1994) is exemplified as a risk factor in resilience literature, but it is evident that such risk condition is mostly related with the early period of infancy while low SES as a risk-increasing factor applies to all age-groups. However, Beltman et al. (2011) reviewed the potential risk factors increasing the chance of being non-resilient from the perspective of teacher resilience.

Depending on the extensive-review of research about teacher resiliency (Beltman et al., 2011), prominent risk factors were listed under different classifications. The factors influencing the resiliency of teachers are quite context-specific as professional or school-related challenges, or personal attributes negatively affecting the state of resiliency. The review also indicates that the most studied subject areas with respect to the challenges associated with resilience was classroom management and disruptive students under contextual risk factors while negative self-belief and negative self-confidence were the leading individual risk factors associated with lower resiliency of teachers. Based on the bulk of reviewed studies, the contextual aspects at school environment are quite worthy of attention for enhancing supportive actions that are likely to empower teacher resiliency.

2.6.2. Protective factors

Protective factors refer to the conditions moderating the negative influence of risky circumstances or hardship, and support the adaptation of individuals (Masten, 1994). In other words, they function as a defense mechanism against the risk factors (Greene & Conrad, 1999) surrounding individuals or organizations. The relevant literature about protective factors mostly highlight the factors associated with vulnerable groups (e.g., children, elderly people, disaster victims) while the research on teacher resiliency has started after 2000s (Beltman et al., 2011). Based on the reviews done by Beltman and her colleagues (2011), a number of factors shielding the maintenance of resiliency were systemically reviewed and categorically listed as

individual protective factors and contextual protective factors. With regard to the factors listed, the most studied issues identified as an individual protective factor are personal attributes with altruism (self-sacrifice), moral value, and faith while the contextual protective factors are the support of administration at school. The relative importance or effect size of the listed factors on resilience enhancement in the reviewed studies was not reported; hence, it is not possible to determine which one of them is more influential than others for the resiliency of teachers.

As a differing aspect of protective factors, individual factors over-weight the contextual factors while the case is reverse for the risk factors. This implies that decreasing the negative influence of contextual risk factors and empowering individual protective factors would strongly support the enhancement of resilience. Another issue is that individual factors for either risk or protective ones are quite consistent with the factors cited for resiliency of the other groups of people (e.g., child, adolescent, disaster victims, or elderly people), which is evident from the extant literature (Kumpfer, 1999). It can be concluded that the contextual factors and some individual attributes should be assessed depending on the population and setting-specific aspects for exploring resiliency.

2.6.3. Resilience studies in Turkish context

Resilience research in Turkish context largely began after 2000s (Karabulut & Balcı, 2017) and a variety of scales were adapted or developed by the researchers (e.g., Gizir, 2005; Gürgan, 2006; Karaırmak, 2007). As evident from the extensive literature, resilience research was conducted in different fields such as disasters, trauma, health problems, and family problems. In a similar fashion, in Turkish literature, different types of studies in various issues have been conducted by the scholars. Regarding the studies conducted, Gizir (2004) and Arastaman (2011) investigated the factors affecting the resiliency of students. Karaırmak (2007) conducted a study with the people who were impacted by the earthquake disaster that happened in Marmara Region in 1999. Özcan (2006) explored the resiliency of children whose parents were divorced.

Other than these studies, in relation to resilience research in education context, Kırımoğlu, Yıldırım, and Temiz (2010) studied the resiliency of physical education

teachers. Karabulut and Balcı (2017) searched the relationship between locus of control and school administrators' level of resilience, and also reported how the resiliency of school administrators differed with respect to certain background variables such as gender, school type, years of experience, and level of education. In addition, Gürgan (2006) investigated the resiliency of teacher candidates. Kaya (2007) studied to what extent hope, self-esteem, and external factors predict resilience among the students from a regional boarding school.

Considering the role of resilience in adapting people to the difficult conditions, the interest of scholars from the field of education towards resilience is not suprsing because of the ever-increasing speed of educational changes in recent years (Erdoğan, 2014) and the growing complexity of problems in schooling have seemed to make the members of TES exhausted. Accordingly, the question of how the members of TES can survive under those circumstances turns into a popular explorable subject among the scholars.

2.7. Readiness for Organizational Change and Resilience Relationship

In their seminal article that is based on conceptualization of readiness for organizational change, Armenakis et al. (1993) states: "individuals will avoid activities believed to exceed their coping capabilities, but will undertake and perform those which they judge themselves to be capable of…" (p. 686). Depending on this definition, the coping ability of people in maintaining activities or change attempts appears to be pivotal. In a similar fashion, in resilience literature, resilience is regarded as an important coping capability at the time of compelling conditions (Panksepp, 2014; Block & Kremen, 1996). In the literature, there are different studies about the relationship between employee attitude and resilience (e.g., Wanberg & Banas, 2000; Çalışkan, 2011). Also, in relation to the cruciality of resilience at the time of change implementations, Luthans (2002) identifies resilience as a "positive psychological capacity to rebound, to 'bounce back' from adversity, uncertainty, conflict, failure, or even positive change, progress and increased responsibility" (p. 702). Supporting this argument, Avey, Wernsing, and Luthans (2008) stated resilience as positive psychological capital including hope, optimism, and efficacy. In their studies, resilience was associated with positive emotions which in turn was related to employee attitude. Depending on these perspectives and

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studies conducted, readiness for change as a positive employee attitude has to do with resilience construct.

2.8. The Change Plan: Novice Teacher Training Program

In the spring of 2016, a large-scale nationwide change plan about the training of new teachers was executed by the MONE depending on the legislation (Resmi Gazete, 2016). This nationwide change initiative offers an orientation program taking six-months for the novice teachers who are recently assigned as teachers in different branches of teaching at K-12 schools across the country. The main rationales behind this particular training program are two-fold; 1) Helping teachers get used to the places where they will be carrying out their profession, and 2) Lessening initial burnout problems of new teachers through early orientation and mentoring. While the second rationale seems a common concern for all teachers, but the first rationale is specifically related with country-specific issues. In particular, there have been quite diverse socioeconomic, ethnic, and cultural groups of people all around the different regions of the country in Turkey. Especially, the rural parts, eastern and southeastern regions of the country are regarded as less developed places where disadvantaged groups are living compared with the larger and industrialized cities. Accordingly, the practice of teaching in those regions may be hardened and new teachers may need to be supported and well informed prior to starting teaching profession.

Every year, more than ten-thousands of new and mostly young teachers are assigned to the different cities of Turkey, mostly to the rural regions, and east and southeastern parts while these new teachers have been trained in big cities. However, most of people living in those places are socioeconomically weak and sometimes far away from the basics of schooling. For example, some children learn Turkish at school because their mother tongues are different from the official medium of instruction. Also, some families of children may not be fully aware of the importance of schooling or not capable of sending their children to school, depending on a number of factors (e.g., economic hardships; working at farmlands; biases in girls' education). All these matters make the teaching profession harder for the novice teachers than their senior colleagues. Therefore, these young teachers in their first

years are most likely to come across a number of issues other than those that just require basic teaching skills in the schools they are assigned to.

While the issues mentioned above are specific for Turkey, a research conducted in the United states points out that teacher experiences the highest level of burnout at the beginning of teaching career (Shakrani, 2008), and the rate of job exit for teachers in the first 5 years is 17% (Gray & Taie, 2015). Supporting this finding, the documented adaptation challenges of novice teachers in Turkey are consistent with the extant literature (Öztürk, 2008). Given these findings, the attempt for such an orientation program may serve as a means to minimize the burnout concerns of the novice teachers. Also, it is evident that the practice of teaching at actual classes does not totally comply with the theoretical subjects taught at undergraduate degree even if students at undergraduate level are required to practice internships at schools for a short period of time. It is also emphasized in Turkish literature that supportive educational opportunities in teaching profession are found to lessen burnout problems (Cemaloğlu & Şahin, 2007). Therefore, such a change attempt is likely to contribute to the professional well-being of novice teachers. Based on the concerns and motivations stated above, a six-month of novice teacher training program was launched in March of 2016. The details of the program were provided in the appendix section (Appendix I). The program has three main training divisions; 1) Training in-class & in-school taking 384-hour; 2) Training out of school taking 90-hour; 3) In-service training with a 168-hour program. The training program lasts a total of 642 hours, excluding the film-watching and book-reading periods. While some subjects of the program show similarity with the course contents taught at undergraduate level, the activities out of school and in-service training have unique attributes with contemporary local practices. Within the training program, a mentor teacher, more experienced teacher in the school, also accompanies novice teachers and grades her/his performance at the end. After all these training processes, the participants are also required to pass a written and oral examination to be assigned as permanent teacher. The implementation and coordination of program is left to the provincial authorities (Resmi Gazete, 2016).

In the current study, this large-scale change attempt was adopted as a change proposal in order to execute an experimental attitude change intervention and to

explore a hypothesized model of certain variables (resilience, cognitive dissonance, and readiness for change) among the target population, the 4th and 3rd year students of faculty of education. The selected participant groups are the closest prospective members of the impending change, so their sense of awareness and familiarization with the program is acknowledged as quite high. Since this training program was just used as an assessment tool for the research questions defined above and the offered change plan was quite recent, the necessary details of the program were conveyed to the participants during data collection-time. Therefore, the participants were well-informed about the forthcoming change in their professional career.

2.9. Summary of the Literature Review

In Turkish education system, the number of educational change attempts has accelerated, but the concerns of stakeholders have also raised in the same extent. Especially, the discontent of organizational members and the high failure rates have oriented scholars, practitioners, and policy-makers to answer the question of why change outcomes were not realized as expected. In the organizational change literature, there are a number of frames of references to explore the change process and respective sources of problems.

Given the bulk of research pertaining to the organizational change practices, the individual side of change has been much emphasized in such a way that human element in change practices is said to be ignored and thereby the change attempts are doomed to failure (Beer & Nohria, 2000; Bouckenooghe, 2009; Clegg & Walsh, 2004; Tsouskas & Chia, 2002). Supporting this notion, in Turkish educational context, the disregarded role of stakeholders prior to the implementation of educational change practices is articulated by numerous reserachers (Grossman, Önkol, & Sands, 2007; Güven, 2012; Türkan & Grossman, 2011). In that sense, a closer examination of scholars for understanding the attittudes of educators towards educational practices has become popular (e.g., Aydın & Şahin, 2016; Çalık & Er, 2014; Demir & Erdoğan, 2016; Kalman & Bozbayındır, 2017; Levent, 2016). Regarding the individual side of change, the positive and negative employee attitude towards change are identified as one of core aspects for a successful change implementation (Clegg & Walsh, 2004).

In relation to the positive employee attitudes, readiness for change is extensively studied (Rafferty et al., 2013) and identified as the initial steps or unfreezing and subsequent moving sections of a change process (Bernerth, 2004). The respective concept suggests that changing the attitude of people for making them ready may contribute to the success of change attempts. While the extant literature documents a number of factors associated with readiness for change, the occurrence of readiness for change or changing the attitudes of organizational members seemed to take less attention. In relation to the creation of readiness for change among organizational members, the guiding change message model of Armenakis et al. (1993;1999) provide some practical implications to explore. In this model, the communication of change message involving five key aspects (self-efficacy, principal support, discrepancy, appropriateness, and personal valence) to organizational members was identified as the source of successful change. With respect to the practicability of these aspects in organizational change and particularly readiness for organizational change context, Holt et al. (2007b) developed a RFOC scale representing these five aspects of change message. The scale was generated around these factors; appropriateness, management support, change efficacy, and personally beneficial (personal benefit). Depending on this change message model and relevant RFOC scale, an experimental attitude-change or creation of readiness for change seemed plausible through communicating a change message.

With regard to the depiction of change in organizations, varying frames of references have been offered as; content, contextual, process, and outcome aspects (Armenakis & Bedeian, 1999); life cycle, dialectical, teleological, and evolutionary perspectives (Van de Ven & Poole, 1995). Besides these, the frame of social cognition theory (Bandura, 1986) is also suggested to be adopted to understand change in organizations. In social cognition theory, it is assumed that each individual may interpret change differently because of cognitive processes people experience while understanding change (Kezar, 2001; Weick, 1995). Depending on this perspective, social cognitive theory is also thought to be a substantive theory for understanding the human side of change. For the explanation of the organizational change from the perspective of social cognition theory, the question of "why change occurs" is explained with the occurrence of cognitive dissonance (Kezar, 2001).

Supporting this approach, in the relevant literature, an experimental attitude change concept has extensively been discussed with respect to the cognitive dissonance theory for more than fifty years (Festinger, 1957). The formation of cognitive dissonance and subsequent attitude change seemed to have some communalities with the idea of experimental attitude change through appropriate change messages. That is to say, cognitive dissonance theory assumes that people are prone to change their attitudes when they receive a counter attitudinal information. The act of receiving counter attitudinal message or information makes individuals dissonant and thereby these individuals feel forced to change their attitude to get rid of dissonance and reach consonance. Even more, the higher degree of dissonance is likely to lead to more attitude change. Based on this idea, the change message model and cognitive dissonance theory may help us better explore the course of attitude change.

Other than these issues, one other construct regarded as positive personality trait, resilience can be associated with the development of cognitive dissonance experience and thereby the factors of RFOC. Depending on cognitive adaptation theory (Aspinwal & Taylor, 1992) and the defining terms of resilience (Major et al., 1998), resilience can be considered as a strong personality trait identified with self-esteem, optimism and perceived control (Taylor & Brown, 1988, as cited in Wanberg & Banas, 2000, p. 133). In this respect, resilience as coping mechanism is likely to influence the generation of discomfort at the time cognitive dissonance. Specifically, depending on the studies reporting the negative relationship of positive personality traits (psychopathic traits, extraversion, & low self-monitoring) and cognitive dissonance related discomfort, resilience can be another potential factor that may serve as inhibitor for cognitive dissonance and accordingly the occurrence of less attitude change experience.

The theoretical knowledge derived from the relevant literature review was thought to suggest a practical perspective for exploring attitude change. In this regard, the recent change attempt, Novice Teacher Training Program, executed by MONE (Resmi Gazete, 2016) was adopted as a change plan to examine the attitudes of the attendants in the program. The training program offers an extensive variety of tasks to be achieved by young teachers who are found to be eligible as prospective teachers upon passing the Public Personnel Selection Exam (KPSS). However,

exploring the initial attitudes of the prospective attendants of this program towards the change and helping them change their attitudes through creating cognitive dissonance may provide some insightful findings and interpretations.

CHAPTER 3

METHOD

The following chapter presents the methodological components of the study. First, the overall design of the study was described. Second, sampling procedure with participant information is provided. Subsequently, the data collection instruments used in the study along with the information about the adaptation and piloting of the instruments were introduced in detail. Finally, the data collection procedures, data analysis, and the prospective limitations of the study were presented.

3.1. Overall Design of the Study

One part of this study employed a quasi-experimental design since experimental studies aim to explore the cause-and-effect associations among the variables (Fraenkel, Wallen, & Hyun, 2012). Of the experimental designs, a pretest/posttest quasi-experimental design with nonequivalent groups was employed (Charles & Mertler, 2002) in order to understand whether the participants' readiness for organizational change level (personal benefit, change-efficacy, management support, and appropriateness) altered as a result of the addressed instruction types (positive instruction, negative instruction, and no instruction or control condition) which were about a recent change proposal (Novice Teacher Training Program). The participants being exposed to one of three instruction types at the post-test stage were classified depending on their initial RFOC levels (positive attitude group, negative attitude group, and control group) assessed at the pre-test stage.

In data analysis, however, the relevant RFOC scores occurred over time (pre-test & post-test) were transformed into a new variable termed as *Magnitude of Readiness for Organizational Change*, obtained through subtracting the posttest scores from the

pretest scores for each factor of RFOC. By this transformation, the experimental data provided the amount of attitude change, which occurred over time (pretest and posttest) for each factor of RFOC. Following the transformation of the raw RFOC data, One-Way MANOVA was performed in order to compare the magnitude of RFOC that each group experienced.

The other part of the study sought to explore the potential relationships among the following variables; the magnitude of RFOC (personal benefit, change-efficacy, management support, and appropriateness) generated over time (pretest and posttest) in the experimental design, cognitive dissonance, and resilience. To accomplish this, correlational design was thought to be appropriate because this particular design allows for the investigation of potential relationships between two or more variables (Fraenkel et al., 2012). In this regard, path model was adopted as a correlation method, depending on the suggestion that path model provides an effective exploration of the associations among the selected variables simultaneously (Kline, 2011).

In brief, this study was designed to answer the following research questions through the data analysis methods described above.

1. How do the three groups of participants (positive attitude group, negative attitude group, and control group) differentiate in the magnitude of attitude change obtained for each dimension of RFOC?

2. How do cognitive dissonance and resilience relate with the magnitude of attitude change obtained for each dimension of RFOC in the positive attitude group?

3. How do cognitive dissonance and resilience relate with the magnitude of attitude change obtained for each dimension of RFOC in the negative attitude group?

3. 2. Sampling Procedure and Participants

The data was collected in the spring semester of the 2015-2016 academic year. Before starting data collection, the required permission for collecting data at the selected university was received through applying to the university's Human

Subjects Ethics Committee (Appendix A). The participants of the study were the 3rd, 4th, and 5th grade students pursuing undergraduate education from a wide range of disciplines (Foreign Language Education, Mathematics and Science Education, Computer Education and Instructional Technology Elementary and Early Childhood Education) at the Faculty of Education of the particular university. The population of the study was the total number of enrolled 3rd, 4th, and 5th grade students which were 754 for the 2015-2016 academic year, based on the provided official records of the university. For the sample selection, considering a quasi-experimental design was chosen in this study, the random assignment of the samples was not feasible. Therefore, ten different intact classes of EDS (Educational Sciences) courses were chosen in order to ensure an optimum sample homogeneity because EDS classes hosted different students from all the departments at the same time, serving as the provider of teaching pedagogy subjects to the students of Faculty of Education. The collection of all data was done by the researcher and each participant of the study took a stationary gift card as an incentive for taking part in this research. Also, at the time of data collection, the researcher especially asked for the respondents to pay enough attention to any probability of missing case while answering the questions. Therefore, the proper collection of data was assured by way of these precautions. Upon completing the data collection process, necessary debriefing was done in relation to the respective study.

3.2.1. Participants

The data was collected from 10 intact classes with approximately 25 students in each class. A total number of 201 undergraduate students participated in the study. The participants were pursuing their undergraduate degrees as the 3rd, 4th, or 5th graders and having majors in various fields of education as follows; Foreign Language Education (32.8%), Mathematics and Science Education (49.7%), Computer Education and Instructional Technology (15.4%), and Elementary and Early Childhood Education (1.5%). The proportion of the students participating to the study was almost consistent with the total population of each department of the Faculty of Education. The sample were made up of 165 (81.6%) female and 36 (17.4%) male students. The percentage of male and female participants of the study were also nearly consistent with the official record of Faculty of Education regarding

the proportion of female students (75.6%) and male students (24.4%) in total. With respect to the distribution of grades, 36.8% of the participants were 3rd graders, 60.2% of the participants was 4th graders, and the rest 2.5% was the 5th graders. Besides the demographic information of the participants, they were also asked how important they found the "Novice Teacher Training Program" recently proposed by the MONE for new teachers who will be assigned to the public schools. Majority of them reported the training program as important for them with a mean score of 3.79 out of 5, which was an indicator of the fact that the proposed change plan was much valued by the participants.

Conducting the study as pretest and posttest in two phases, the number of participants for each stage showed variation. For the pretest, there were a total of 201 participants as stated above while the number of the participants at the posttest decreased to 163 participants because of the absent students at the time of instrument implementation. The demographic characteristics of the participants were displayed in Table 4. There were two experimental groups which took either positive instruction or negative instruction about a change plan (Novice Teacher Training Program), and one control group having no instruction. There were 52 participants for the positive experimental group, 52 students for the negative experimental group, and 59 students for the control group.

Table 4

Demographic Characteristics of the Participants

		Attitude Groups		
		Negative	Positive	Control
Gender				
	Female	44	41	48
	Male	8	11	11
Class				
	3rd Grade	21	17	26
	4th Grade	31	32	33
	5th Grade	0	3	0
Department				
	Foreign Language Educ. (FLE)	28	19	12
	Elementary Science Educ. (ESE)	5	5	15
	Elementary Math. Educ. (EME)	4	5	13
	Computer Educ. Instructional Tech. (CEIT)	3	8	16
	Early Childhood Educ. (ECE)	10	12	0
	Chemistry Educ. (CE)	1	1	2
	Physic Educ. (PE)	1	2	1

3.3. Data Collection Instruments

With respect to the data collection tools, the following instruments were used; Readiness for Organizational Change Scale (Holt et al., 2007b), Ego Resiliency Scale (Block & Kremen, 1996; Karaırmak, 2007), and Cognitive Dissonance Thermometer (Elliot & Devine, 1994). Prior to the main study, a pilot study was conducted in order to assess the reliability and validity of the instruments used in the study. The following section provided the details of the piloting process.

3.3.1. Pilot study

Regarding the pilot of the selected instruments, the scales were administered to a total of 343 undergraduate students. Of the participating students, the number of females ($N = 276$) outnumber the number of males ($N = 67$). With regard to the grade level variations among the students, they were from the 2nd (2%), 3rd (40.3%), 4th (54.5%), and 5th (2.7%) grades. The participants represented a range of academic disciplines, including Foreign Language Education (39.1%), Mathematics and Science Education (47.2%), Computer Education and Instructional Technology (12.5%), and Elementary and Early Childhood Education (1.2%).

3.3.2. Sample and procedure

The data for pilot study was collected through stratified sampling. Stratification in sampling allowed to reach the same proportion of students from each department as they existed in the population (Fraenkel et al., 2012). With regard to the adequacy of the sample size for conducting CFA (Confirmatory Factor Analysis), as a rule of thumb, at least 200 participants were suggested to be enough (Kline, 2011). The number of 343 cases in this particular pilot study met the suggested sample size criteria. Prior to moving on to the analysis of the pilot data, the recommended assumption checks were made as follows: missing value analysis, univariate outliers, multivariate outliers, univariate normality, multivariate normality, linearity, and multicollinearity (Tabachnick & Fidell, 2007).

Conducting the missing value analysis through Little's MCAR Test (Little & Rubin, 1987), the results yielded non-significant Chi-square values for all scales, meaning that the missing patterns of the data were in a random way. For detecting the extreme cases in the data set, univariate and multivariate outlier checks were done respectively. Univariate outliers were identified as the cases with standardized z-scores above +3.29 and below -3.29, as recommend by Tabachnick and Fidell (2007). As for the detection of multivariate outliers, Mahalonobis distance was calculated (Tabachnick & Fidell, 2007) and nine cases exceeding the critical Chi-square value were treated as the multivariate outliers to be excluded from the analysis. Observing that the exclusion of the detected outliers from the data set made

the results of the analysis normally distributed, the outliers were not kept in the data set at the end.

Upon reorganizing the data set in accordance with the results of univariate and multivariate outlier analysis, univariate normality was checked through the skewness and kurtosis values in order to detect the non-normal data. The results of univariate normality indicated that few items in different scales were slightly over the recommended cut-off values, between +3 and -3 for skewness and kurtosis (Tabachnick & Fidell, 2007). In addition, the observational check of histograms, Q-Q plots, and box-plots assured the researcher that the univariate normality was satisfied. With regard to the inspection of multivariate normality, the AMOS Version 18 (Arbuckle, 2009) output revealed that the multivariate kurtosis values for all the scales were below the critical ratio of 10, indicating moderate non-normality. Thus, it can be concluded the normality assumptions were satisfied. As for the detection of linearity assumption, the residual plots and scatterplots were created. Visual check of the plots revealed that the assumption of linearity was met. Next, the assumption of multicollinearity was controlled through Pearson correlation coefficients. All the scales met the assumption without having any variable, exceeding the cut-off multicollinearity value of .90 (Tabachnick & Fidell, 2007). After satisfying the required assumptions of the Confirmatory Factor Analysis, a series of CFA analyses were executed for each scale through AMOS (Analysis of Moment Structures) Version 18 (Arbuckle, 2009), in the following section.

3.3.3. Readiness for Organizational Change

Readiness for Organizational Change scale (Appendix B) was developed by Holt and his colleagues (2007b) in order to measure the readiness of individual members towards the change activities initiated within their organization. The scale consisted of 25 items with 4 factors as follows; change efficacy, appropriateness, management support, and personal valence. With respect the reported reliability of the scale by the developers, the coefficient alphas ranged between .65 and .94. The response format of the scale was a 7-point Likert-type ranging from "strongly disagree" (1) to "strongly agree" (7), but the researcher administered the instrument with a 5-point Likert-type scaling in this particular study in order to ensure a consistent (5-point Likert-type) scaling among all other scales administered. Adaptation of the scale to

Turkish was done by the researcher through this study. Upon obtaining the permission from the developers of the instrument, the instrument was translated into Turkish by three different experts: two English Language Teaching instructors who work at a university; one doctoral student who has an undergraduate degree of English Language Teaching. Afterwards, in order to figure out the best combination of three different translations, the researcher and one expert from the field of Educational Administration and Planning evaluated the translations and agreed upon the appropriate items. Later on, with the help of two different experts from the field of Educational Sciences, some minor modifications were made on the scale in order to contextualize the items within Turkish education context in general and the addressed change proposal "Novice Teacher Training Program" in particular.

3.3.3.1. Confirmatory factor analysis of Readiness for Organizational Change

For the validation of Readiness for Organizational Change instrument, item-parceling method was preferred because Kline (2001) recommends using item-parceling while conducting CFA for the scales having more than 5 items. Considering that the scale has a total of 25 items, ten item parcels were created. The CFA results revealed an acceptable model fit as presented in Table 5

Table 5

Goodness of Fit Indexes for Four Factor Model of RFOC

	χ^2	df	χ^2/df	CFI	TLI	RMSEA	SRMR
Model 1	100.168***	28	3.58	.96	.93	.09	.04

***$p < .001$

3.3.3.2 Reliability of Readiness for Organizational Change

The reliability of Readiness for Organizational Change Scale was assessed by conducting Cronbach Alpha coefficient. The Cronbach alpha was found as .78 for personal benefit subscale, .78 for change efficacy subscale, .75 for management support subscale, and .93 for appropriateness subscale. In relation to improvement of the reliability scores if any of the items was deleted, no item was detected to make the reliability scores much better for each subscale.

3.3.4. Ego Resiliency Scale

The Ego Resiliency Scale (Block & Kremen, 1996) (Appendix C) was developed in order to measure the personal capacity of individuals in adjusting to the ever-changing life events. The original scale has 14 items with one dimension with a Cronbach's alpha coefficient of .76. Turkish adaptation of the Ego Resiliency Scale was carried out by Karaırmak (2007) and the scale was reformulated as a three-factor structure as; Personal Strengths Relating Recovery; Positive Self-Appraisals; Openness to New Experience. The reported reliability scores for Turkish participants were respectively .66, .63, and .67. However, depending on the original one-factor structure, one-factor solution was tested in this particular study.

3.3.4.1. Confirmatory factor analysis of Ego Resiliency Scale

For the validation of the scale in the present study, CFA was run to test one-factor structure of the scale for the current data. Depending on the suggestions of Kline (2011), which recommend item parceling for the scales having more than five items, item parceling technique was performed for the Ego Resiliency Scale. Upon creating four parcels for the total 14 items, CFA was conducted for the one-factor solution. As presented in Table 6, the CFA model provided a perfect fit for the one-factor model. The range of standardized estimates were between .66 and .76.

Table 6

Goodness of Fit Indexes for One-Factor Model of Ego Resiliency Scale

	$\chi 2$	df	$\chi 2/df$	CFI	TLI	RMSEA	SRMR
Model 1	5.97 (p =.05)	2	2.99	.99	.97	.08	.02

3.3.4.2. Reliability of Ego Resiliency Scale

In order to assess the internal consistency of the scale, Cronbach's alpha coefficient was calculated for the total scale. The reliability score was found as .83 for Ego Resiliency Scale. With respect to the improvement of the reliability scores if any of the items was deleted, excluding any item does not contribute to the reliability score much better for the total scale.

3.3.5. Cognitive Dissonance Thermometer

In the measurement of cognitive dissonance, Cognitive Dissonance Thermometer (Devine, Tauer, Barron, Elliot, & Vance, 1999; Elliot & Devine, 1994) (Appendix D) was adapted into Turkish through this study. The scale has 14 items asking participants to rate how they feel "at that moment" on a 7-point Likert type scale ranging from 1 "does not apply at all" to 7 "applies very much". However, the response format of the scale was rearranged as a 5-point Likert type scale in order to ensure consistency of scaling among all other instruments having a 5-Likert type format. The scale has four factors as; Discomfort, Positive, Negself (Negative self-directed affect), and Embarrassment, which consist of a number of words describing personal feelings such as "bothered", "uncomfortable", and "uneasy". However, only the discomfort construct was identified with cognitive dissonance thermometer, other sub-constructs were used as discriminant validity measures and unobtrusive questions to minimize the concerns of experimental demand (Elliot & Devine, 1994) which is an internal validity threat in experimental studies (Orne, 1962). The reported reliability coefficient of the whole scale was .80. After receiving the permission from the corresponding author for adapting the scale to Turkish, three different experts having a major of English Language Teaching translated the instrument. Subsequently, depending on the evaluations and agreements of the researcher and an expert from the field of Educational Sciences, the most appropriate translations from three versions of Turkish translation were chosen and the final version of the scale was made ready for piloting.

3.3.5.1. Confirmatory factor analysis of Cognitive Dissonance Thermometer

To examine the validity of the scale for Turkish context, one-factor structure of the Dissonance Thermometer was tested through conducting CFA. The initial CFA results gave out a poor fit of the structure to the model. Checking the modification indexes, the error covariance of the pairs (6-9; 7-8; 12-13) was freely estimated. The subsequent CFA indicated a good fit of the factor structure to the model (Table 7). Standardized estimates of the scale ranged from .45 to .90.

Table 7

Goodness of Fit Indexes for Cognitive Dissonance Thermometer

	χ2	df	χ2/df	CFI	TLI	RMSEA	SRMR
Model 1	114.171***	59	1.90	.92	.90	.06	.05
Model 2	92.486 (*p* = .02)	56	1.65	.97	.96	.05	.05

***$p < .001$

3.3.5.2. Reliability of Cognitive Dissonance Thermometer

With respect to the reliability of the scale, the Cronbach's alpha coefficient values were found as .83 for Discomfort, .87 for Negative-self, .89 for Positive, and .39 for Embarrassment. None of the items contributed to the improvement of the reliability of the scores in any case of deleting the items. Considering the Discomfort construct would be actual cognitive dissonance measure, it was decided that the low reliability of Embarrassment would not affect the main data analysis.

3.4. Operational Definition of the Variables

Readiness for Organizational Change: The mean score obtained from Readiness for Organizational Change (RFOC) Scale.

Magnitude of Readiness for Organizational Change: The score obtained through subtracting the posttest RFOC scores from the pretest RFOC scores.

Change Efficacy: The mean score obtained from the Change Efficacy subscale of RFOC Scale.

Magnitude of Change Efficacy: The score obtained through subtracting the posttest Change Efficacy scores from the pretest Change Efficacy scores.

Appropriateness: The mean score obtained from the Appropriateness subscale of RFOC Scale.

Magnitude of Appropriateness: The score obtained through subtracting the posttest Appropriateness scores from the pretest Appropriateness scores.

Management Support: The mean score obtained from the Management Support subscale of RFOC Scale.

Magnitude of Management Support: The score obtained through subtracting the posttest Management Support scores from the pretest Management Support scores.

Personal Benefit: The mean score obtained from the Personal Benefit subscale of RFOC Scale.

Magnitude of Personal Benefit: The score obtained through subtracting the posttest Personal Benefit scores from the pretest Personal Benefit scores.

Resilience: The mean score obtained from the Ego-Resiliency Scale.

Cognitive Dissonance: The mean score obtained from the Cognitive Dissoance Thermometer.

3.5. Data Analysis

The purpose of the present study is two-fold. First, a pretest/posttest quasi-experimental design with nonequivalent groups was employed. Based on the pretest and posttest scores, one-way MANOVA was conducted in order to see how the magnitude of change obtained for each RFOC factor differed among the groups of the experiment.

Second, the obtained magnitude of change for each RFOC factor was also explored through establishing two path models (positive attitude group and negative attitude group) including one mediator (cognitive dissonance) and one predictor (resilience). In the path models, the control group was excluded because one variable of the path model (cognitive dissonance) could only be measured by way of creating a sense of inconsistency resultant from counter attitudinal information between two time points (pretest and posttest). This sense of inconsistency can only be achieved through the instructions, either negative or positive, addressed to the participants while the control group participants were not exposed to any kind of instruction and subsequent essay writing. Accordingly, the conditions for creating cognitive dissonance do not exist for the control group and thereby the control group was excluded.

3.5.1. Steps followed in the experimental stages and creating Cognitive Dissonance

In this study, the source of data was obtained from a created experimental research. In this part, the steps followed in each stage of experimentation is provided. As displayed in the Figure 5, at the pre-test stage, a total of 201 students participated in the study in their classroom setting at class-hour. Ten different classes were visited by the researcher for collecting data and in each class the same course of actions were followed. First, the instructors of the respective class left the class for creating an appropriate data collection environment for the researcher. Then, the students were informed about why such a research was needed and conducted by especially stating the importance of their contributions to the study. In addition, in order to raise the awareness of the participants about the research, the participants were briefly informed about the upcoming training program in which they would be trainees in order to be assigned as qualified teachers at state schools.

The participants were requested to identify themselves with a nickname and to write the respective nicknames on the first page of the instrument booklets. Through this approach, confidentiality concern was eliminated and the students were easily detected for data collection at the follow-up session. The students first completed the RFOC scale on which they expressed their opinions about an upcoming educational change plan, *Novice Teacher Training Program*. Then, they completed the resilience scale. After this step, the data collector left the classroom. This pre-test session took an approximate of 15 minutes.

The gathered RFOC scales were examined in relation to the total RFOC scores for each attendant. Prior to moving on to the post-test stage, based on the ratings of 201 participants, three groups were generated as; positive attitude group, negative attitude group, and control group. In the formation of the groups, the calculated mean score ($M = 3.16$) for all participants was adopted as reference point to classify the participants into groups because the cut-off mean value ($M = 3.16$) was the average mean for all the participants. The negative group was constituted with the participants who rated below the cut-off RFOC mean value ($M = 3.16$) while the positive group was formed with the participants rating above the cut-off mean value. Last, the control group was created through the equal assignment of participants

from both negative attitude group and positive attitude group. Upon assignment of the participants to one of three groups, four weeks later, the post-stage was followed.

At the post-test session, each of the classes included previously in the pre-test session was again visited by the researcher. Before starting the post-test sessions, the instructor of the respective class again left the classroom. Then, the researcher reminded the students of the purpose of his visit and stated that "You all know that we (with the advisor of the research) are conducting a research about the recent change initiative (Novice Teacher Training Program). This particular change is of prime importance for all of you considering that you are pursuing your degrees at the faculty of education. Your ideas and suggestions for this change initiative are quite precious for the subsequent steps of this research and thereby the change proposal; therefore, we ask you to provide your perspectives about this change. It is important to note that you all are free to leave the session if you feel that you do not want to participate". After this short informing session, as part of voluntary participation to the experiment, all the students were given a stationary gift card.

Next, the researcher divided the participants into three groups (positive attitude group, negative attitude group, and control group) by calling their nicknames from a previously prepared paper. Through this way, each of the three groups was seated in different parts of the class in order to maintain independent observation. In addition, the students were strongly requested to be silent like an exam-time while completing with their individual tasks.

Afterwards, a bunch of instruments involving all post-test session documents was handed out to the participants, depending on their pre-assigned groups and identified nicknames from the pre-test session. First, the positive attitude group read a one-page information sheet providing negative information (see Appendix E) about *Novice Teacher Training Program* while the negative group read a one-page information sheet providing positive information (see Appendix G) about *Novice Teacher Training Program.* However, the control group was not given any kind of information sheet, but they just completed RFOC scale. After the intervention groups finished reading one-page information sheet. Then, they were requested to write a one-page persuasive and strong essay about *Novice Teacher Training Program* (see Appendix F & H). In essay writing, the negative attitude group was induced to write

an essay (see Appendix H) favoring the training program while the positive group was induced to write an essay (see Appendix F) disfavoring the training program. In the instruction section of essay-writing part, for the positive attitude group, the following statements were emphasized;

"As part of our scientific research, we are trying to gather personal opinions about *Novice Teacher Training Program* in order to understand about why this program can be useless and inefficient. We have already received the opinions of some people about why the program will not work and become inefficient. We ask you to write a strong and persuasive essay explaining why this program will not work and become inefficient. You can express your opinions in paragraphs or in lists of items. You have 10 minutes to complete the essay writing section".

With a similar approach, for the negative attitude group, the following instruction was established;

"As part of our scientific research, we are trying to gather personal opinions about *Novice Teacher Training Program* in order to understand about why this program can be beneficial and efficient. We have already received the opinions of some people about why the program will work well and become efficient. We ask you to write a strong and persuasive essay explaining why this program will become beneficial and efficient. You can express your opinions in paragraphs or in lists of items. You have 10 minutes to complete the essay writing section".

The essay writing method was an application conducted within the induced compliance paradigm in cognitive dissonance researches (e.g., Elliot & Devine, 1994; Sastre, 2014); therefore, the participants were induced to write a persuasive essay. After this step, the intervention groups completed the Cognitive Dissonance scale and then RFOC scale. In the end, necessary debriefing was done in relation to the respective study. The post-test session took approximate 30 minutes.
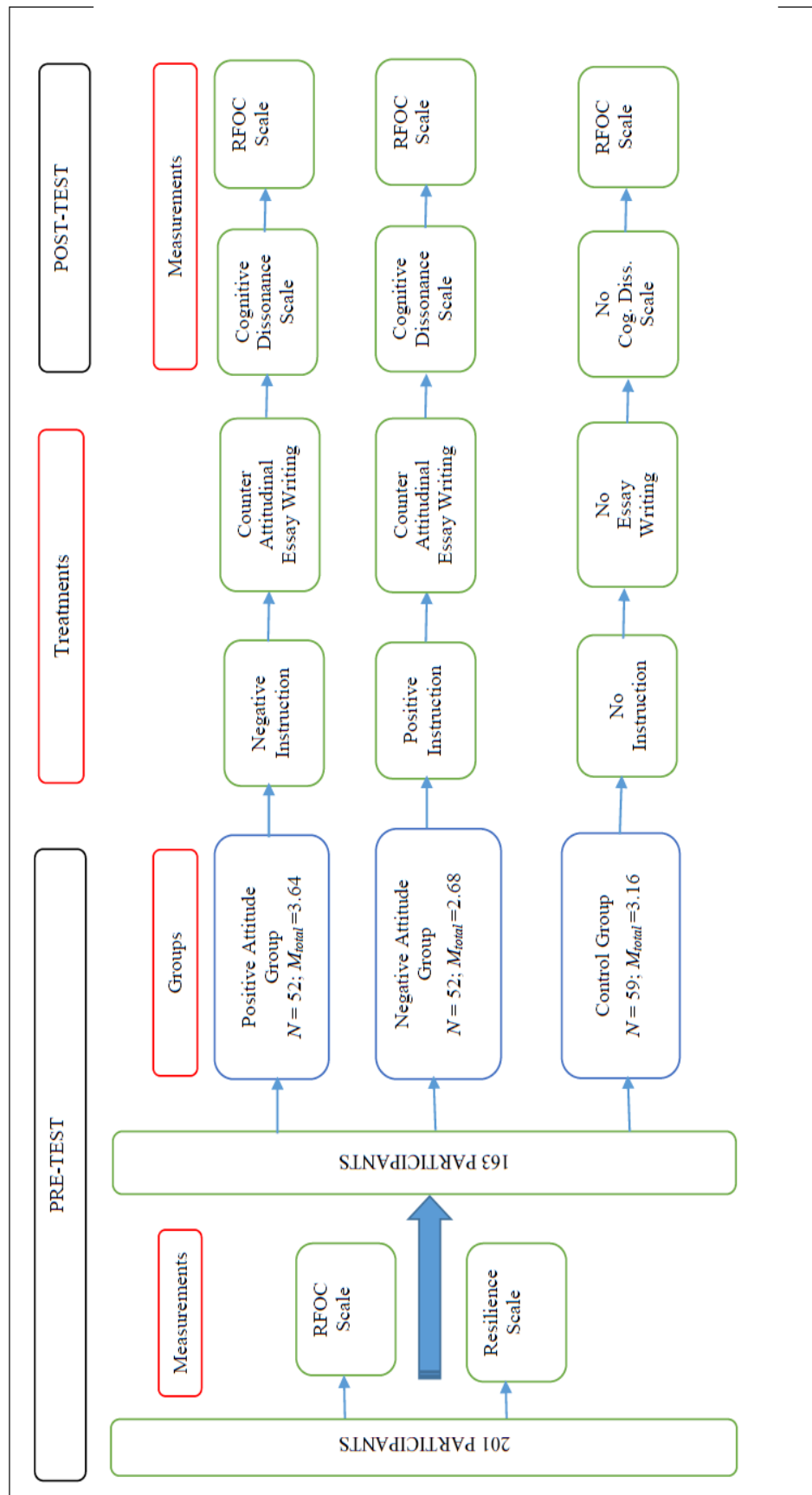
Figure 5. Graphical *Representation of the Experimental Stages*

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3.5.2. Preparation of the information sheets

As part of the experimental design, two types of information sheets about *Novice Teacher Training Program* were prepared beforehand. The information sheets were prepared as negative information sheet (for positive attitude group) and positive information sheet (for positive attitude group). In relation to the steps followed for the preparation of information sheets, the mass media speeches done by the top administrative staff from the MONE, two prominent education unions, and the Minister of Education at The Grand National Assembly of Turkey were used. In addition, some scientific findings that noted the challenges of young teachers in their early years, high rate of failures in change attempts, and the reasons behind the change failures were utilized to prepare the information sheets. In each sheet, either negative or positive information was included. While it was possible to prepare hypothetical sheets, the information found in the mass media and scientific researches were taken as reference in order to maintain the objectivity of sheets. Also, the content and strength of each sheet was checked through putting similar types of information from each side (negative or positive information).

One important point to note is that the information sheets were also considered as supplemental material for the subsequent essay writing task because the pilot study of the particular research had revealed that students seemed reluctant to express their opinions in essay writing task without a prompting information sheet. Depending on this fact, the participants were encouraged to reflect their ideas more in essay writing section by way of provided information sheets. In addition, in cognitive dissonance studies, a number of similar steps were adopted to create dissonance state (e.g., Burris et al., 1997; Glock & Kneer, 2009). In that sense, the use of information sheets seemed feasible to encourage the attendants to involve in essay-writing task much more, and thereby to experience cognitive dissonance.

3.6. Supplementary Analyses

In this section, before conducting main analysis, some supplementary analyses were needed to be reported because the experimental nature of this study raised some concerns like; whether the created dissonance scores really represented the discomfort level of the participants; whether the induced essay writing task

proceeded as thought by the researcher; and whether the addressed change proposal really attracted the attention of the participants. All these issues mattered in this study for the sake of true interpretation of the data findings, depending on the recommendations from previous cognitive dissonance studies (Elliot & Devine, 1994; Sastre, 2014) and the nature of experimental designs (Haslam & McGarty, 2004).

3.6.1. Counter-attitudinal essay writing task: Framing negative and positive information

In this study, the participants in the intervention groups were required to read a one-page information sheet (negative or positive) about the change plan and write a counter attitudinal essay. In the literature, it is noted that positive or negative information will not be framed or perceived in the same manner by the individuals. In particular, the persuading power of negative information was found to be much stronger than that of positive information (Fiske, 1980; Maheswaran & Meyers-Levy, 1990; Meyerowitz & Chaiken, 1987). These imply that attitude change may not proceed as assumed in accordance with the provided information. Supporting this notion, in a cognitive dissonance research, Elliot and Devine (1994) found a negative relationship between attitude change and cognitive dissonance although there had to be a positive relationship, based on the assumptions of the cognitive dissonance theory (Festinger, 1957) Upon this finding, Elliot and Devine (1994) checked the written essays and concluded that extreme and important attitudes were likely to be more resistant to change than non-polarized and unimportant attitudes (Krosnick, 1988; Osgood & Tannenbaum, 1955; Rhine & Severance, 1970, as cited in Elliot & Devine, 1994) and it was suggested to make the individuals involved in more "cognitive work" prior to changing their attitudes (Goethels & Cooper, 1975, as cited in Elliot & Devine, 1994).

Depending on the perspectives above, the essays of the participants were checked to understand whether the participants confirmedly wrote the essays as they were instructed. It is apparent that the task of essay writing was quite critical for the development of cognitive dissonance and subsequent attitude change in this study. Accordingly, for each treatment group, the individual essays were reviewed and

rated under one of three sets as; "totally confirmed"; "partially confirmed"; or "totally disconfirmed". The selection of three sets (three- point Likert scaling) for essay rating was based on the recommendations done by Jacoby and Matell (1971). To ensure the reliability of the ratings for the essays, two different judges, unaware of the research, read the essays and rated each with respect to three levels. The inter-reliability between two ratings was .88. As displayed in Table 8, the results revealed that most of the participants in the negative attitude group did not want to write totally positive things about the program although they read a one-page information favoring the program and then got induced to write an essay reflecting the positive sides of the program. In particular, not all of the participants in the negative group ($N = 25$) totally confirmed the positive change-message conveyed to them and wrote essays in accordance with the induced instructions. However, this was not the case for the positive attitude group. Nearly all of them ($N = 48$) became willing to write a counter attitudinal essay.

The contrary dispositions of negative attitude group in essay writing were actually consistent with some conceptual terms like *attitude strength, selective exposure, and confirmation bias* explaining the psychology of extreme attitudes. These terms suggest that some attitudes may be more resistant to change than others, depending on a number of factors such as extremity, intensity, interest, latitude of rejection and non-commitment, certainty, knowledge, direct experience, accessibility, importance, and affective cognitive consistency (Krosnick & Smith, 1994).

Table 8

Confirmation Frequencies of the Participants in Relation to the Counter Attitudinal Essay Writing

Attitude Groups	Totally Confirmed		Partially Confirmed		Totally Disconfirmed		Total	
	f	*p*	*f*	*p*	*f*	*p*	*f*	*P*
Negative	25	48.07	20	60.3	7	13.46	52	100
Positive	48	92.30	4	7.70	0	60.3	52	100

All in all, the supplementary analysis provided a source of information for the correct interpretation of the findings. Also, the analysis presented a validation for the steps and tasks administered within the study.

3.6.2. Importance of the change plan and essay writing task

As documented in the literature review, one important component of creating dissonance is to alert the participants through selecting important issues pertaining to their self-interests (Voisin & Fointiat, 2013). In this respect, at the pre-test stage, all of the participants from each group was asked to rate on a 5-Likert Type scale; *How important do you find the approaching change plan (Novice Teacher Training Program)?* As displayed in Table 9, the level of importance for the participants was quite close to each other and did not display a statistically significant difference between each other, meaning that the importance level did not become a confounding variable for the groups in the subsequent steps of the experiment.

Table 9

Means and Standard Deviations for the Importance of the Change Plan and Essay Writing Task

	Attitude Groups					
	Negative		Positive		Control	
	M	*SD*	*M*	*SD*	*M*	*SD*
How important do you find the approaching change plan (Novice Teacher Training Program)?	3.74	1.02	3.82	.91	3.84	1.05
How important were the results of your essay?	4.02	.94	4.06	.84	n.a	n.a
How bad do you feel for the essay you wrote?	1.90	.91	2.16	1.00	n.a	n.a

Note. n.a: Not applicable

In addition, at the post-test stage, they were requested to answer the question by rating a 5-Likert Type scale; "*How important were the results of your essay*"? Through this question, the attention of the participants to the essay writing task was

assessed. It was found that the overall mean score for this question was pretty high, indicating that the participants paid enough attention to the task.

The participants were also asked to respond the following question; *"How bad do you feel for the essay you wrote?"* The total response score of each group seemed consistent with their measured discomfort level (cognitive dissonance). This similarity can be regarded as a validation for the cognitive dissonance measurement because a recent review (Freijy & Kothe, 2013) on cognitive dissonance theory especially emphasizes the difficulty of assessing the correct degree of dissonance experienced.

3.7. Path Analysis

Path analysis is defined as a more comprehensive and extended version of a multiple regression model (Schumacker & Lomax, 2004). Being a more powerful data analysis technique than regression in examining the probability of causal associations among three or more variables, path analysis allows the researcher to frame a theory about the probable causes of a certain phenomenon, through which identified causal relationships among the selected variables explain the reasons behind the occurrence of that particular phenomenon and thereby the correlations reveal how the formulated theory is consistent with the extant literature (Kline, 2011). In the following lines, the terminologies of path analysis were provided.

Path model is a structural diagram consisting of independent (exogenous), dependent (endogenous), and intermediary (mediator) variables, through which a hypothesized causal relationship among the observed variables were represented (Kline, 2011).

Endogenous variable is the synonym of dependent variable and predicted by the independent (exogenous) variable(s) in a manner of direct or indirect way in the model (Byrne, 2010). In this study, the endogenous variables are the four dimensions (personal benefit, change efficacy, management support, and appropriateness) of RFOC scale.

Exogenous variable is equivalent to independent variable and functions as the cause of variations in the values of the other variables of the model. (Byrne, 2010). The exogenous variable of this study is Ego Resiliency scale.

Mediator: It is alluded as a variable explaining the relationship between criterion variable(s) and predictor variable(s) (Baron & Kenny, 1986). The mediator variable of this study is cognitive dissonance construct.

Path coefficients/path weights: are statistical estimates of direct effects calculated through the effect of independent variable(s) on dependent variable(s) in a path model (Kline, 2011).

The Bentler Comparative Fit Index (CFI): It is an incremental fit index assessing how the proposed model complies with a baseline model (the independence model) (Kline, 2011). CFI has a range of values between 0 and 1. According to Bentler (1992), CFI value higher than .90 is an indicative of acceptable model fit while the recommended CFI value for a good model fit should be greater than .95 (Hu & Bentler, 1999).

Tucker-Lewis index (TLI): It is an incremental (comparative) fit index. Like CFI, the TLI has a score range between 0 and 1. The higher scores mean better model fit, but a higher value of .95 is just regarded as a good fit (Hu & Bentler, 1999).

Chi square (χ2): It is the most commonly used goodness-of-fit indices to evaluate the fit between the proposed model and the covariance matrix. A significant value of x^2 means the hypothesized model does not fit the sample data (Kline, 2011). However, the χ2 test statistics are quite sensitive to large sample size; therefore, to remedy this limitation, normed chi-square (*x2/df*) is also used with a cut-off value of 3 for an acceptable fit (Kline, 2011).

Root mean square error of approximation (RMSEA): It is an estimate of badness-of-fit index comparing the hypothesized and independence model. The RMSEA value closer to zero is an indication of good fit (Kline, 2011). While the values below .08 is considered to be an acceptable fit value, a RMSEA value of .05 or lower is accepted as a good fit (Browne & Cudeck, 1993). Besides that, the values between

.08 and .10 are also regarded as mediocre fit, but the values exceeding .10 is an indication of poor fit (MaCallum, Browne, & Sugawara, 1996).

Standardized Root Mean Square Residual (SRMR): It is "the overall difference between the observed and predicted correlations" (Kline, 2011, p. 209). For SRMR, the values of .08 or below are regarded as indicators for a good fitting model (Hu & Bentler, 1999) while the recommended value for a well-fitting model is .05 or less (Bryne, 2010).

CHAPTER 4

RESULTS

This chapter involves the data analyses of three separate research questions through conducting One-Way MANOVA and two path analysis. In view of that, the relevant data analysis and subsequent results were reported in three different sections. Prior to the main data analysis in each section, as a preliminary step, the recommend assumptions (i.e., sample size, missing value analysis, univariate and multivariate outliers, univariate and multivariate normality, multicollinearity, and so forth) of each analysis were checked. Next, the descriptive analyses of the variables of interest were reported. Finally, the results of each data analysis were set out.

4.1. Descriptive Data Analysis

Before moving on to the main data analyses, the descriptive statistics of the related variables were calculated. The pretest and posttest scores for each RFOC dimension and the calculated magnitude of change were depicted in Table 10. Also, the estimated marginal means for each group from pretest to posttest were visually presented in line charts (see Figure 6). As indicated in Table 10, the highest magnitude of attitude change was observed for the personal benefit dimension ($M =$ -.84, $SD = .88$) and the appropriateness dimension ($M = $ -.84, $SD = .77$) in the positive group while the lowest magnitude of attitude change was observed for the appropriateness dimension ($M = $ -.02, $SD = .55$) and the management support dimension ($M = .06, SD = .57$) in the control group. For the total score of the RFOC scale, it was again observed that the positive group ($M = $ -.65, $SD = .59$) experienced much more change than the negative group ($M = .48, SD = .57$) from pretest session to posttest session while the control group ($M = .05, SD = .41$) did not show much variability from the pretest to the posttest.

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The visual representation of the variability among the groups from the pretest and the posttest time was also provided in the line graphs (see Figure 6). A great amount of variability for the positive and negative group from pretest time to posttest time was clearly observed. On the other hand, with respect to the control group, even if there were some degrees of increase from pretest to posttest scores, the degree of variability was quite lower than the positive and negative groups. Also, in the control group, the direction of change for all the factors except appropriateness was upward, indicating that the control group participants also experienced a little increase during the experiment. However, the statistical significance of those variability amounts will be verified in the main data analysis.

Table 10

Means and Standard Deviations of the Pretest, Posttest, and Magnitude of Change for the RFOC Factors

	Pretest			Posttest			Magnitude of Change (RFOC) (Post-Pre)		
	Positive	*Negative*	*Control*	*Positive*	*Negative*	*Control*	*Positive*	*Negative*	*Control*
Factors of RFOC	M = 3.64	M = 2.68	M = 3.16	M = 2.99	M = 3.17	M = 3.22	M = -.65	M = .48	M = .05
	(.33)	(.32)	(.66)	(.55)	(.62)	(.65)	(.59)	(.57)	(.41)
Personal Benefit	M = 3.84	M = 2.76	M = 3.24	M = 3.00	M = 3.14	M = 3.31	M = -.84	M = .38	M = .07
	(.63)	(.67)	(.97)	(.86)	(.89)	(.97)	(.88)	(.90)	(.78)
Change Efficacy	M = 3.98	M = 3.07	M = 3.50	M = 3.31	M = 3.44	M = 3.64	M = -.67	M = .37	M = .14
	(.48)	(.57)	(.69)	(.64)	(.78)	(.70)	(.70)	(.70)	(.59)
Management Support	M = 3.00	M = 2.42	M = 2.76	M = 2.77	M = 2.96	M = 2.82	M = -.23	M = .54	M = .06
	(.66)	(.58)	(.68)	(.72)	(.73)	(.70)	(.74)	(.70)	(.57)
Appropriateness	M = 3.75	M = 2.50	M = 3.15	M = 2.90	M = 3.14	M = 3.12	M = -.84	M = .64	M = -.03
	(.46)	(.58)	(.93)	(.75)	(.83)	(.86)	(.77)	(.85)	(.55)

Note. Standard deviations are in parentheses.
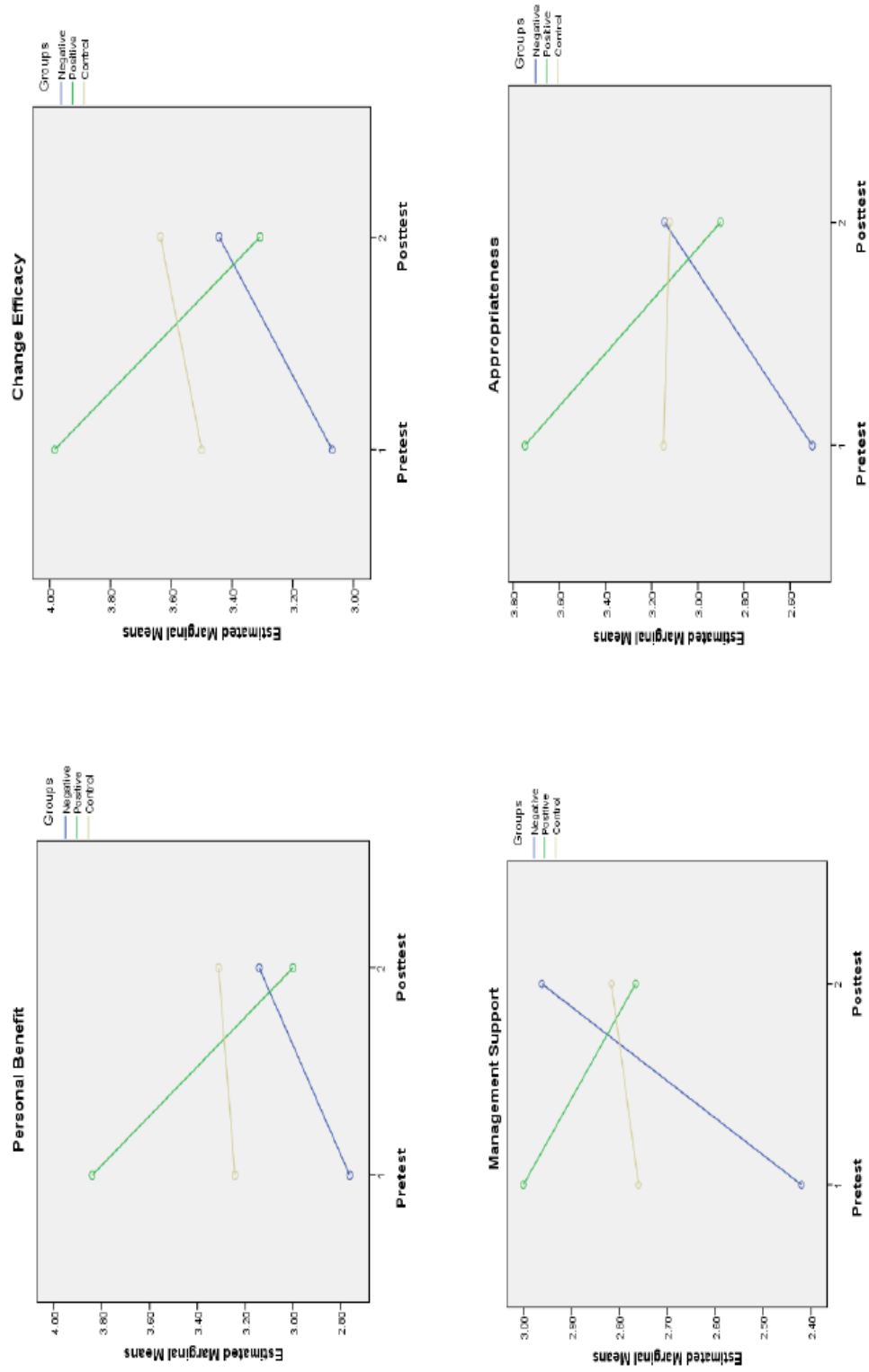
Figure 6. Estimated marginal means for the dependent variables by groups from the pretest to the posttest

4.2. Preliminary Analyses

Prior to the main data analysis, a series of preliminary analyses were conducted in order to examine whether some background variables differentiate with respect to the outcome variables for each group of the participants. The background variables were gender (i.e., male & female), class (i.e., 3rd, 4th, & 5th classes), and departments (i.e., FLE, ESE, EME, CEIT, ECE, CE, & PE). The outcome variables are cognitive dissonance and the magnitude of change obtained for each dimension of RFOC. The groups are negative attitude group, positive group, and control group.

First of all, for each group of the participants, independent samples t-tests were conducted through taking gender as grouping variable. For the negative attitude group, the results of t-test indicated that being male or female did not have any significant effect on the variables of personal benefit ($t(7.723) = .10, p = .92$), change efficacy ($t(50) = .08, p = .94$), management support ($t(50) = .10, p = .93$), appropriateness ($t(50) = .23, p = .82$), and cognitive dissonance ($t(50) = -.17, p = .87$). Likewise, for the positive attitude group, the results revealed that gender had no effect on the variables of personal benefit ($t(48) = 1.39, p = .17$), change efficacy ($t(48) = .64, p = .53$), management support ($t(48) = .1.20, p = .24$), appropriateness ($t(48) = 1.68, p = .09$), and cognitive dissonance ($t(48) = 1.90, p = .06$). For the control group, the results similarly indicated that gender had no effect on the variables of personal benefit ($t(51) = .93, p = .36$), change efficacy ($t(51) = -.36, p = .72$), management support ($t(51) = -.29, p = .78$), appropriateness ($t(51) = .53, p = .60$), and cognitive dissonance ($t(51) = 1.63, p = .11$).

Second, for all the groups, two independent samples t-tests (negative attitude & control groups) and one one-way ANOVA (positive attitude group) were conducted by taking class as grouping variable. While the class variable was comprised of the students at the 3rd and 4th classes for negative attitude and control groups, a few 5th classes were randomly included in the positive group. For negative attitude group, the results of t-test indicated that class did not have any significant effect on the variables of personal benefit ($t(48) = -.46, p = .65$), change efficacy ($t(48) = -.83, p = .41$), management support ($t(48) = .51, p = .62$), appropriateness ($t(48) = -1.44, p = .16$), and cognitive dissonance ($t(48) = .99, p = .33$). For the control group, the

results of t-test revealed that class had no significant effect on the variables of personal benefit ($t(51)$ =-1.30, p = .19), change efficacy ($t(51)$ =.69, p = .50), management support ($t(51)$ =-1.03, p = .31), appropriateness ($t(51)$ =-.70, p = .49), and cognitive dissonance ($t(51)$ = -.27, p = .79). In relation to the positive attitude group, through satisfying the required assumptions of ANOVA, it was similarly found that no significant mean difference was observed for each outcome variable in terms of the class comparison.

Last, the department variable was assessed through conducting nonparametric test (Kruskal-Wallis test) since the distribution of class was not normal across the groups for conducting ANOVA analysis. The results of the Kruskal-Wallis test revealed that there was no statistically significant difference between the mean score of each outcome variable by the type of department, excluding personal benefit dimension in the control group.

4.3. Research Question 1

How do three groups of participants (positive attitude group, negative attitude group, and control group) differentiate in the magnitude of attitude change obtained for each dimension of RFOC?

In this part of the study, one-way between-subjects MANOVA was conducted in order to answer the research question stated above. The independent variables of the analysis were three different groups exposed to one of the following conditions; positive instruction, negative instruction, and no instruction (control group). The dependent variable of the MANOVA analysis was the magnitude of readiness for organizational change with four subscales; appropriateness, personal benefit, change efficacy, and management support.

As explained in the method section, the magnitude of readiness for organizational change was formulated through the scores which were gained by subtracting the posttest scores from the pretest scores.

4.3.1. Assumption check

Before moving on to the analysis of the data pertaining to the first research question, the assumption check was conducted and validated in the following order; missing data analysis, univariate outlier, multivariate outlier, univariate normality, multivariate normality, multicollinearity, and homogeneity of covariance matrices (Field, 2009). Prior to the missing value analysis, the data was checked whether there were any extreme or improper cases through descriptive analysis. Later, the cases with extreme scores were corrected by checking the hardcopy forms of the addressed questioners. Afterwards, as part of the missing value analysis, Little's MCAR test (Little & Rubin, 1987) was executed in order to detect whether the pattern of missing data was at random or not. The result of Little MCAR test yielded a non-significant chi-square value, indicating that the existing missing cases did not carry any threat for the study, and were totally at random.

Next, univariate and multivariate outliers of the particular data were checked. Outliers of a data set are comprised of univariate ones referring the unusual scores on a variable, and multivariate ones meaning the unusual combination of scores on two or more variables (Tabachnick & Fidell, 2007). First, the univariate outliers were looked over through the standardized z-scores. The cases with z-scores out of the boundaries between + 3.29 and - 3.29 (p < .001) were identified as outliers (Tabachnick & Fidell, 2007). One case of all the data set was found as outlier, slightly exceeding the upper limit of + 3.29 value. Afterwards, in order to identify the multivariate outliers, Mahalonobis distance was computed through conducting linear regression (Tabachnick & Fidell, 2007). The results of the regression analysis revealed that only two cases of the data set were out of the critical chi-square distance (p < .001). Considering few number of outliers and the relatively small data set, both the univariate and multivariate outliers were kept in the data set in order to compare the results of the main data analysis with and without the outliers.

Next, univariate and multivariate normality assumptions were inspected. Normality of the variables was assessed as univariate and multivariate ones. In order to check the univariate normality, skewness and kurtosis values of each variable were calculated. The results of the analysis showed that the data had a normal distribution

within the acceptable cut-off values between +3 and -3 for skewness and kurtosis (Tabachnick & Fidell, 2007) (see Table 11). In addition, regarding the visual inspection of the histograms and Q-Q plots for each variable, the data seems to have a reasonable normal distribution. All in all, it can be concluded that univariate normality assumption was met.

Table 11

Means, Standard Deviations, Skewness, and Kurtosis Values for the Variables

	M	*SD*	Skewness	*SE*	Kurtosis	*SE*
RFOC Subscales[a]						
Personal Benefit	.41	.91	.232	.19	.92	.38
Change Efficacy	.38	.69	.16	.19	.60	.38
Management Support	.27	.70	.32	.19	1.25	.38
Appropriateness	.46	.82	.56	.19	.66	.38

Note. [a]*The factors of Readiness for Organizational Change scale represent the magnitude of change calculated through subtracting the posttest scores from the pretest scores for each factor.*

After satisfying the univariate normality, multivariate normality was checked through computing Mardia's tests. The results of the analysis yielded a significant value meaning that the assumption of multivariate normality was not met. However, MANOVA studies with large enough samples ($N = 10$ per group) have robustness to non-normality (Seo, Kanda, & Fujikoshi, 1995; Tabachnick & Fidell, 2007). Accordingly, the multivariate normality assumption would not be a threat for this particular analysis. Next, multicollinearity was checked by conducting Pearson correlation. The correlations between all the variables were below .90 (Tabachnick & Fidell, 2007), which indicated that each variable constituted different constructs without overlapping with one another (see Table 12).

Table 12

Correlation Coefficients between the Factors of the RFOC

RFOC Variables	1	2	3	4
1. Personal Benefit	-			
2. Change Efficacy	.59*	-		
3. Management Support	.03	.15	-	
4. Appropriateness	.66*	.69*	.23*	-

* $p < .01$.

Afterwards, in order to check the homogeneity of covariance matrices, Box's Test and Levene's Test were executed. Box's M Test yielded a non-significant value (31.40, p<.01), indicating that the observed covariance matrices of the dependent variables (RFOC factors) are roughly equal across groups (Field, 2009). Similar to the result of Box' M Test, the results of Levene's Test were also non-significant and satisfactory for each dependent variable, providing evidence for the homogeneity of covariance matrices. All in all, it can be concluded that the required assumptions for the MANOVA analysis were satisfactorily met.

4.3.2. Main data analysis

After satisfying the recommended assumptions of MANOVA and providing descriptive results of the data, the main data analysis was executed. Depending on the Wilk's lambda, which is the most preferable multivariate statistics (Hair, Anderson, Tatham, & Black, 2006), the results of MANOVA analysis revealed that the main effect for the independent variables (treatment groups) on the combination of dependent variables (the magnitude of RFOC factors) was significant (Wilks' Λ = .71, F (8,314) = 7.41, p = .00, η^2 = .16) as presented in Table 13. In other words, 16% of the variance in the combination of the magnitude of RFOC factors was explained by the groups (positive group, negative group, and control group), indicating the existence of differences among the groups. In addition, a variance of 16 % was an indicative of a large effect size (Cohen, 1988).

Besides the multivariate results, in order to examine the effects of the groups on the dependent variables, Bonferroni correction was conducted before univariate analysis.

Thus, the new alpha level was set as .013 by dividing the alpha level (.05) into four, which referred to the number of dependent variables. As depicted in Table 13., the univariate ANOVA analysis indicated that the groups (negative, positive or control) had a significant and medium to large effect size (Cohen, 1988) on personal benefit dimension (F (2,160) = 11.24, $p < .013$, η^2 = .12, explaining 12% of the variance), change efficacy dimension (F (2,160) = 9.18, $p < .013$, η^2 = .10, explaining 10% of the variance), and management support dimension (F (2,160) = 7.20, $p < .013$, η^2 = .08, explaining 8% of the variance). As for the appropriateness dimension, in a similar fashion, the groups had a significant and large effect size (Cohen, 1988) on that variable (F (2,160) = 22.02, $p < .013$, η^2 = .22, explaining 22% of the variance).

Table 13

Multivariate and Univariate Analyses of Variance for Personal Benefit, Change Efficacy, Management Support, and Appropriateness by Groups

			Univariate							
			Personal Benefit		*Change Efficacy*		*Management Support*		*Appropriateness*	
	Multivariate									
Source	F^a	η^2	F^b	η^2	F^b	η^2	F^b	η^2	F^b	η^2
Groups	7.41*	.16	11.24**	.12	9.18**	.10	7.20**	.08	22.02**	.22

Note. Multivariate F ratios were generated from Wilk's statistics. [a]Multivariate (Groups) $df =$ 8, 314; *$p = .00$. [b]Univariate (Groups) $df = 2, 160$; ** $p < .013$.

With regard to the pairwise comparison of the groups for the dependent variables, as depicted in Table 14, the analyses revealed that the participants in the positive group significantly scored higher magnitude of change in personal benefit dimension than the participants in the control group. However, there did not exist any statistical difference among the other pairs. The pairwise comparisons also revealed that the magnitude of change for change efficacy dimension was significantly higher for the participants in the positive group than those in the control group. As for the pairwise comparison of management support dimension, the participants in negative group showed significantly higher magnitude of change than the ones in the control group. Last, the participants of both positive and negative groups significantly reported higher magnitude of change for the appropriateness dimension than the participants in the control group.

Table 14

Pairwise Comparison of Personal Benefit, Change Efficacy, Management Support, and Appropriateness by Attitude Groups

Factors of RFOC	I (Groups)	J (Groups)	Mean Difference (I-J)
Personal Benefit	Positive	Negative	.46
		Control	.77*
	Negative	Positive	-.46
		Control	.31
Change Efficacy	Positive	Negative	.30
		Control	.54*
	Negative	Positive	-.30
		Control	.27
Management Support	Positive	Negative	-.31
		Control	.18
	Negative	Positive	.31
		Control	.49*
Appropriateness	Positive	Negative	.21
		Control	.88*
	Negative	Positive	-.21
		Control	.67*

p <.013

4.4. Research Question 2

How do cognitive dissonance and resilience relate with the magnitude of attitude change obtained for each dimension of RFOC in the positive attitude group?

The following section of the study included the path analysis for the positive attitude group. This group involved the participants who were given negative instruction about the proposed change plan, *Novice Teacher Training Program*, at the time of treatment in order to alter their initial opposing attitude towards the proposed change plan. Based on the hypothesized relationship among the variables of interest stated in

the third research question above, a path analysis was conducted. The following part included the stages of path analysis.

4.4.1. Assumption check

Prior to the analysis of the data, a series of preliminary analyses and assumption checks were performed as follows: missing value analysis, adequacy of sample size, univariate and multivariate outliers, univariate and multivariate normality, multicollinearity, and homoscedasticity.

The positive attitude group had a total of 52 participants. With regard to the missing value analysis for the particular data, there did not exist any missing data. Considering the intended data analysis method (path analysis) and the number of parameters included, the sample size of this study met the recommended criteria, 15 cases for each predictor (Stevens, 2009) or a minimum of 10 cases for each predictor (VanVoorhis & Morgan, 2007).

Next, the univariate and multivariate outliers were checked by calculating the standardized z-scores. All the cases were observed within the boundaries, between + 3.29 and - 3.29 (p < .001) (Tabachnick & Fidell, 2007), indicating that no outliers were detected. The visual inspection of the plots almost supported the absence of outliers while a few cases were observed as extreme, which were then checked through calculating the degree of extremeness, depending on the recommendation for outliers in small data sets (Hoaglin, Iglewicz, & Tukey, 1986). Accordingly, one case was excluded from the data set. In relation to the multivariate outliers, Mahalonobis distance was performed through conducting linear regression. No cases were observed as being out of the critical Chi-square distance (p < .001) (Tabachnick & Fidell, 2007).

Afterwards, the univariate and multivariate normality assumptions were examined respectively. As displayed in Table 15, the skewness and kurtosis values were between the cut-off values, +3 and -3 for skewness and kurtosis (Tabachnick & Fidell, 2007), not violating the univariate normality assumption. With respect to the multivariate normality, depending on the multivariate kurtosis values obtained

through AMOS 18 (Arbuckle, 2009), the multivariate normality was regarded as satisfactory since the multivariate kurtosis value was .22 that was below the critical ratio of 1.96 (Mardia, 1970).

Table 15

Means, Standard Deviations, Skewness, and Kurtosis Values for the Variables of Positive Attitude Group (N=51)

	M	*SD*	Skewness	*SE*	Kurtosis	*SE*
RFOC[a]						
Personal Benefit	.84	.90	.63	.33	.24	.66
Change Efficacy	.64	.68	.32	.33	.48	.66
Management Support	.20	.70	.23	.33	.49	.66
Appropriateness	.82	.76	.83	.33	1.55	.66
Cognitive Dissonance	3.12	1.14	.01	.33	-1.02	.66
Resilience	3.68	.43	.10	.33	-.19	.66

Note. [a]The factors of Readiness for Organizational Change scale represent the magnitude of change calculated through subtracting the posttest scores from the pretest scores for each factor.

Another assumption, the multicollinearity of the selected variables was also checked by way of calculating the bivariate correlations. As displayed in Table 16, the multicollinearity assumption was satisfied for the respective variables, meaning that the bivariate correlations among the selected variables were less than the threshold value .90 (Tabachnick & Fidell, 2007).

Table 16

Correlation Coefficients between the Variables of Positive Attitude Group

Variables	1	2	3	4	5	6
1. Personal Benefit	-					
2. Change Efficacy	.70**	-				
3. Management Support	.04	.23	-			
4. Appropriateness	.65**	.65*	.28*	-		
5. Resilience	.33*	.25	-.00	.29*	-	
6. Cognitive Dissonance	.18	.26	.19	.35*	.02	-

*$p < .05$, two-tailed. **$p < .01$, two-tailed.

With regard to the validation of the homoscedasticity and linearity assumption for dependent variables, regression analyses were performed. The obtained plots (Appendix P) revealed that the dots were evenly and randomly scattered through the plot, not violating the assumption of homoscedasticity. Moreover, the residuals plots yielded a linear shape between the outcomes and predictor variables, meaning that the linearity assumption was satisfied.

4.4.2. Path analysis: Testing the proposed Readiness for Organizational Change Model

In this part of the study, a path analysis was conducted in order to understand how the dimensions (personal benefit, change efficacy, management support, and appropriateness) of readiness for organizational change in positive attitude group were explained by the cognitive dissonance as mediator and resilience as predictor.

In the following section, the proposed paths as exhibited in Figure 1, were tested depending on the direct relation of cognitive dissonance with the dimensions (personal benefit, change efficacy, management support, and appropriateness) of readiness for organizational change; the direct relation of resilience with cognitive dissonance; and the indirect relation of resilience with the dimensions of readiness for organizational change. With respect to the recommended fit indices for ensuring a model fit in the relevant path analysis, the following goodness of fit indices were taken as threshold values in Table 17.

Table 17

Cut-off Values for Goodness of Fit Indices

	Goodness of Fit Indices				
X^2/df	CFI	TLI	RMSEA	NFI	GFI
$< 3.0^a$	$> .95^b$	$> .95^b$	$< .06^b$	$> .90^c$	$> .95^d$

Note. [a]Kline (2011); [b]Hu and Bentler (1999); [c]Bentler and Bonett (1980); [d]Schumacker and Loax (2004).

Based on the pathways illustrated in the Figure 7 below, a path analysis was performed. The results of the path analysis revealed that the proposed model was not well fitting to the data especially because the relevant indices (CFI = .11; TLI = -.33; GFI = .65; and RMSEA = .36) were not within the recommended values to ensure a good model fit and the value of x^2/df (7.56) was also below the threshold value ($x^2/df < 3$) (Kline, 2011). In order to improve the model, the appropriate error covariances ($\varepsilon 1 – \varepsilon 2$, $\varepsilon 1 – \varepsilon 3$, $\varepsilon 2 – \varepsilon 3$, $\varepsilon 2 – \varepsilon 4$, and $\varepsilon 3 – \varepsilon 4$) were freely estimated (Appendix M). Subsequently, a path analysis was rerun and the obtained fit indices showed an acceptable fitting model. The chi-square and the relevant fit indices were summarized in Table 18. The Tucker-Lewis Index had a value of .94, an approximate value to .95, indicated as mediocre fit by Hu and Bentler (1999). Similarly, Mean Square of Error Approximation (RMSEA) value was reported as .08, quite approximate to the threshold value of less than .08 for acceptable fit (Browne & Cudeck, 1993). Therefore, it was concluded that the model fit was ensured.

Table 18

The Results of Model-Fit Indices for the Path Analysis

	Goodness of Fit Indices							
	X^2	df	X^2/df	CFI	TLI	GFI	NFI	RMSEA
Hypothesized Model	6.61***	5	.25	.98	.94	.96	.93	.08

***$p < .001$
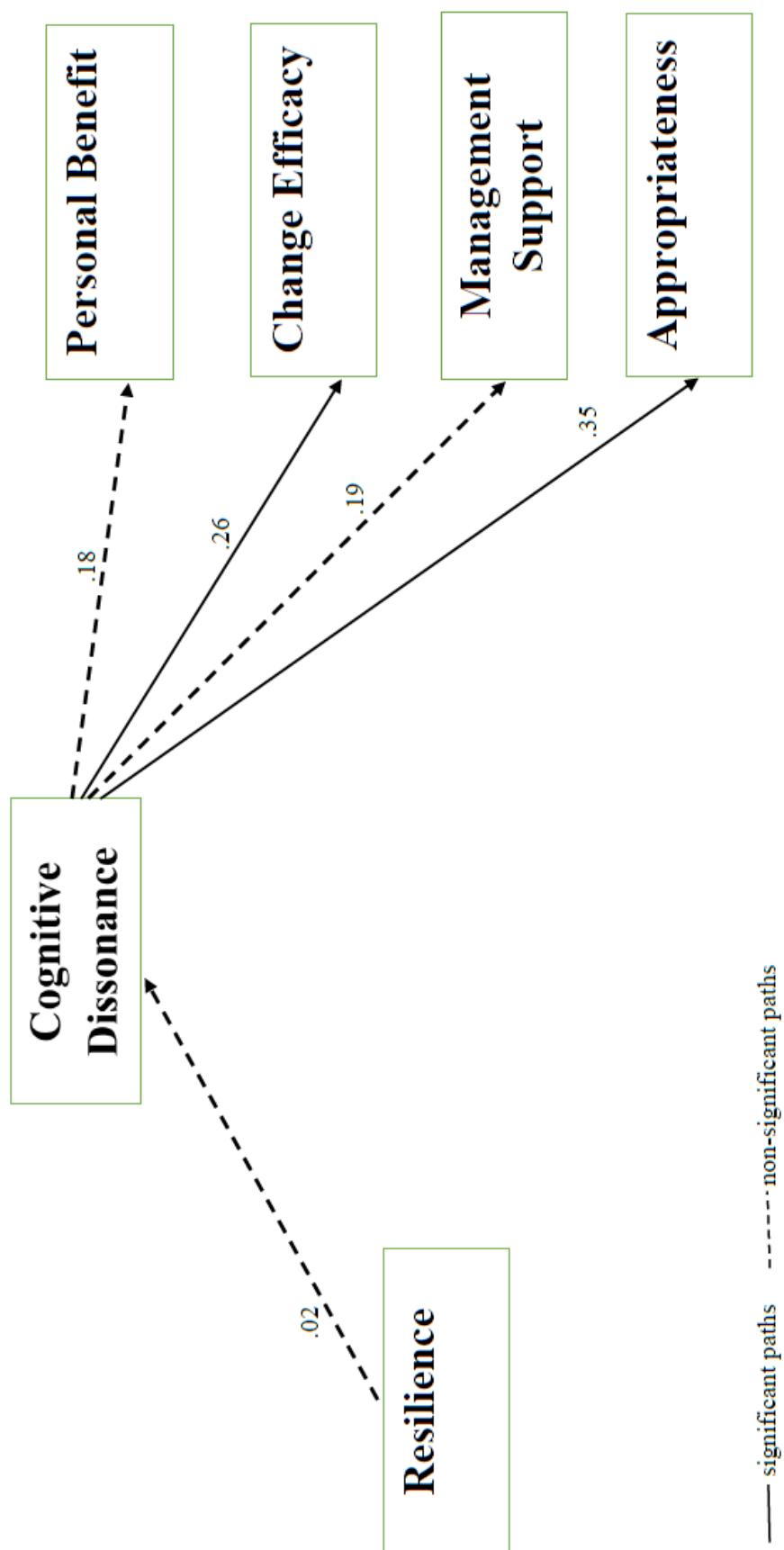
Figure 7. Standardized path coefficients for the proposed model of the positive attitude group

4.4.3. Direct and indirect relationships among the variables

In Table 19, the respective standardized direct, indirect, and total effects of the paths for positive attitude group were provided with the standardized estimates and statistical significance of the relevant path. The path coefficients of the particular model ranged between .004 and .35. The largest direct effect was observed for the path, which was from cognitive dissonance to appropriateness (β = .35) while the lowest direct effect was observed for the path, from resilience to cognitive dissonance (β = .004). With regard to the indirect effects of the paths, the indirect effect of resilience through cognitive dissonance on change efficacy was the largest effect size (β = .02) while the indirect effect of resilience through cognitive dissonance on appropriateness was the lowest effect size (β = .007).

Table 19

Standardized Direct, Indirect, and Total Estimates of the Path Model for the Positive Attitude Group

Paths	Standardized Estimates (β)
Resilience ⟶ Cognitive Dissonance	
Total	.02
Direct	.02
Indirect	-
Resilience ⟶ Change Efficacy	
Total	.01
Direct	-
Indirect	.01
Resilience ⟶ Personal Benefit	
Total	.00
Direct	-
Indirect	.00
Resilience ⟶ Management Support	
Total	.00
Direct	-
Indirect	.00
Resilience ⟶ Appropriateness	
Total	.01
Direct	-
Indirect	.01
Cognitive Dissonance ⟶ Change Efficacy	
Total	.26**
Direct	.26**
Indirect	-
Cognitive Dissonance ⟶ Personal Benefit	
Total	.18
Direct	.18
Indirect	-
Cognitive Dissonance ⟶ Management Support	
Total	.19
Direct	.19
Indirect	-
Cognitive Dissonance ⟶ Appropriateness	
Total	.35*
Direct	.35*
Indirect	-

*$p < .01$. **$p = .055$ (Gigerenzer, Krauss, & Vitouch, 2004)

4.5. Research Question 3

How did cognitive dissonance and resilience relate with the magnitude of attitude change obtained for each dimension of RFOC in the negative attitude group?

In this section of the study, the negative attitude group was identified as the participants exposed to positive instruction about the proposed change plan at the time of treatment in order to lead them to accept an opposing idea. Depending on the hypothesized relationship among the variables of the interest stated in the second research question above, a path analysis was conducted. The following part included the stages of path analysis.

4.5.1. Assumption check

Before conducing the path analysis in conjunction with the second research question, the relevant variables of the data were checked in relation to missing values, adequacy of sample size, outliers, univariate normality, multivariate normality, multicollinearity, and homoscedasticity.

With respect to the missing value analysis, the data did not exceed the threshold value of missing cases over 5% which is indicated as a problem (Tabachnick & Fidell, 2007). Only two cases were detected as missing, but those cases were replaced by the series mean of that particular case in order to maximize the sample size. In relation to the required sample size, Stevens (2009) recommended 15 cases for each predictor, with a similar perspective, VanVoorhis and Morgan (2007) stated that a minimum of 10 cases for each predictor would be enough in relationship studies. Accordingly, the sample size criteria for this particular path analysis (*N = 52*) met the criteria of 10 cases per parameter. Furthermore, the experimental nature of the research limited the researcher to reach much more participants because of the possibility of internal validity threats.

The univariate and multivariate outliers were also checked through computing the standardized z-scores. The cases having z-score out the boundaries between + 3.29 and - 3.29 (p < .001) were regarded as outliers (Tabachnick & Fidell, 2007). All the variables were between the critical boundaries. In addition, the plots were visually

checked and two cases were detected as the extreme ones to be deleted. Considering the small sample size limitation, these cases were initially kept in order to compare the analysis with and without outliers. Later, it was observed that excluding outliers would be beneficial because they were influential on the results. Regarding the multivariate outliers, Mahalonobis distance was performed through conducting linear regression (Tabachnick & Fidell, 2007). No cases were detected as being out of the critical Chi-square distance (p < .001).

Next, the univariate normality and multivariate assumptions were checked in order. As presented in Table 20, the skewness and kurtosis values were between the threshold values +3 and -3 for skewness and kurtosis (Tabachnick & Fidell, 2007), satisfying the univariate normality assumption. With respect to the multivariate normality, depending on the multivariate kurtosis values checked through AMOS 18 (Arbuckle, 2009), the multivariate normality was regarded as satisfactory since the multivariate kurtosis value was .89 that was below the critical ratio of 1.96 (Mardia, 1970).

Table 20

Means, Standard Deviations, Skewness, and Kurtosis Values for the Variables of Negatie Attitude Group (N=50)

	M	*SD*	Skewness	*SE*	Kurtosis	*SE*
RFOC[a]						
Personal Benefit	.41	.85	-.18	.34	.73	.66
Change Efficacy	.39	.66	-.11	.34	.81	.66
Management Support	.53	.68	.53	.34	1.45	.66
Appropriateness	.64	.84	.14	.34	.75	.66
Cognitive Dissonance	2.54	.43	.14	.34	.16	.66
Resilience	3.71	1.14	.20	.34	-.98	.66

Note. [a]The factors of Readiness for Organizational Change scale represent the magnitude of change calculated through subtracting the posttest scores from the pretest scores for each factor.

One other assumption, multicollinearity for all variables in each group was also checked through the bivariate correlations. As displayed in Table 21, the

multicollinearity assumption was satisfied for the variables, meaning that the bivariate correlations of the selected variables were less than the threshold value .90 (Tabachnick & Fidell, 2007).

Table 21

Correlation Coefficients between the Variables of Negatie Attitude Group

Variables	1	2	3	4	5	6
1. Personal Benefit	-					
2. Change Efficacy	.56**	-				
3. Management Support	.01	.17	-			
4. Appropriateness	.60**	.71**	.19*	-		
5. Resilience	-.16	.08	.19	-.01	-	
6. Cognitive Dissonance	-.05	-.31*	-.22	-.31*	-.06	-

*$p < .05$, two-tailed. **$p < .01$, two-tailed.

Last, in order to check the validation of the homoscedasticity and linearity assumption for each dependent variable for both positive and negative attitude groups, a series of regression analyses were conducted. According to the plots (Appendix I), the dots were evenly and randomly scattered through the plot, satisfying the assumption of homoscedasticity. In addition, observing that the residuals plots yielded a linear shape between the outcomes and predictor variables, linearity assumption was met.

4.5.2. Path analysis: testing the proposed Readiness for Organizational Change Model

In this part of the study, path analysis was conducted in order to test how the magnitude of attitude change based on the dimensions (personal benefit, change efficacy, management support, and appropriateness) of readiness for organizational change in negative attitude group was explained by the proposed path model involving cognitive dissonance as mediator and resilience as predictor through AMOS 18 (Arbuckle, 2009).

In the following section, the proposed paths (see Figure 8) were tested depending on the direct relation of cognitive dissonance with the dimensions (personal benefit,

change efficacy, management support, and appropriateness) of readiness for organizational change; the direct relation of resilience with cognitive dissonance; and the indirect relation of resilience with the dimensions of readiness for organizational change. In formulation of model testing, the following goodness of fit indices were used with respect to the threshold values provided in Table 17.

In order to test the hypothesized model, an initial path analysis was executed through AMOS version 18 (Arbuckle, 2009), the results of the path analysis indicated that the proposed model was poorly fitting to the data because the x^2/df value (6.40) was not below the recommended threshold value (x^2/df < 3) (Kline, 2011). In addition, the obtained model-fit indices (CFI = .13; TLI = -.31; GFI = .70; and RMSEA = .33) were not supporting the suggested cut-offs displayed in Table 22. Upon examination of the error covariances of the initial path analysis, the respective highly correlated error terms ($\varepsilon2 - \varepsilon5$, $\varepsilon2 - \varepsilon4$, and $\varepsilon4 - \varepsilon5$) were added (Appendix M). Then, another path analysis was run again and the subsequent model much improved, revealing that the proposed model was well-fitting to the data with a non-significant chi-square ($X^2(6.20) = .89$, $p = .00$), which was indicative of good model fit to the data. In addition, the other fit indices also revealed a perfect model fit to the data, which were provided in Table 22

Table 22

The Results of Model-Fit Indices for the Path Analysis

	Goodness of Fit Indices							
	X^2	df	X^2/df	CFI	TLI	GFI	NFI	RMSEA
Hypothesized Model	6.20***	7	.89	1.00	1.00	.96	1.00	.00

***p < .001
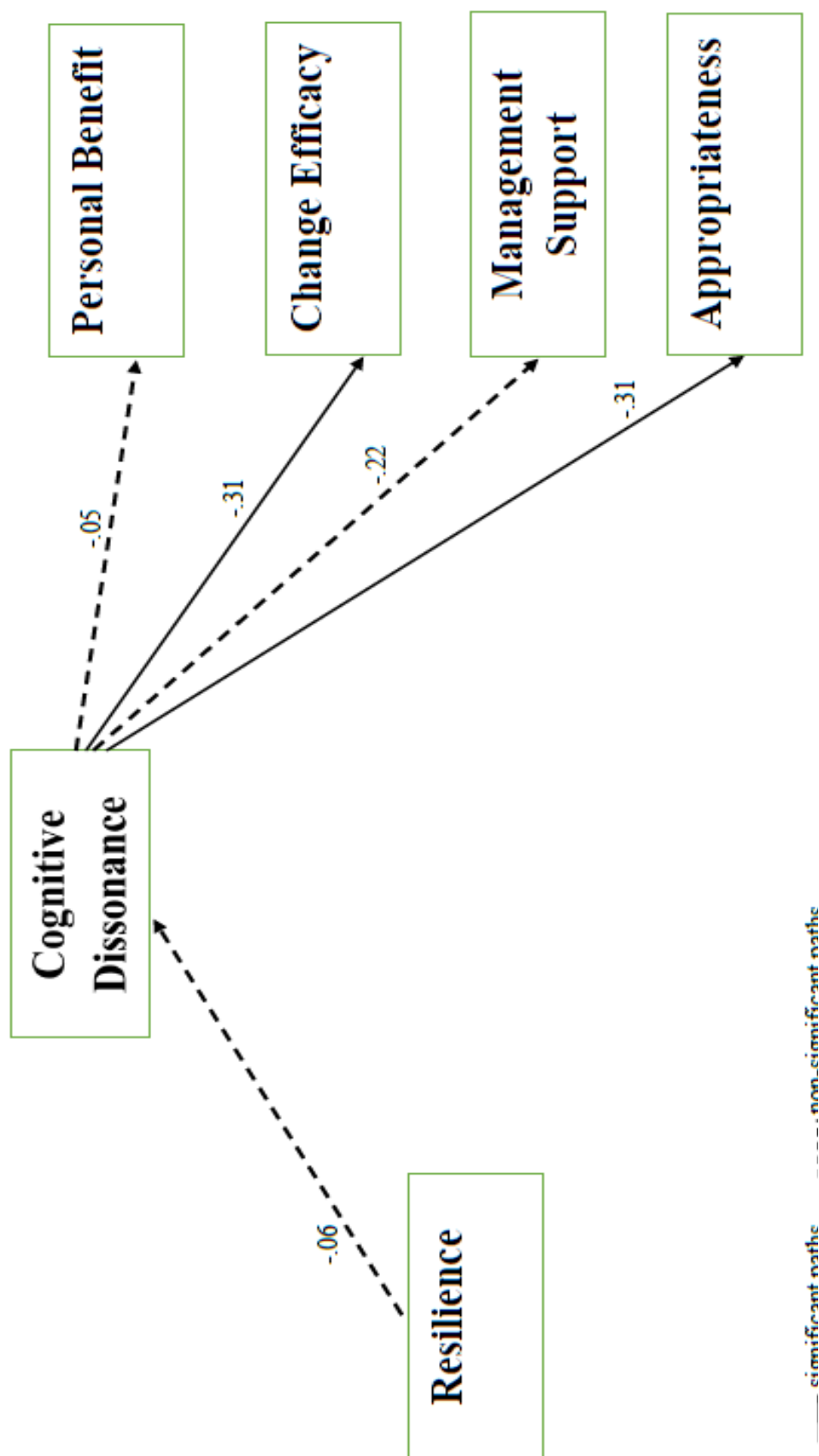
Figure 8. Standardized path coefficients for the proposed model of the negative attitude group

4.5.3. Direct and indirect relationships among the variables

The standardized direct, indirect, and total effects of the paths along with the respective beta weights (β) and statistical significance were summarized in Table 23. The indirect effects between the variables of the model were estimated. The path coefficients of the particular model ranged between .02 and -.31. The largest direct effect was observed for the paths, which were from cognitive dissonance to change efficacy and appropriateness (β = -.31) while the lowest direct effect was observed for the path, from cognitive dissonance to personal benefit (β = -.05). With regard to the indirect effects of the paths, the indirect effect of resilience on change efficacy was the largest effect size (β = .02) while the indirect effect of resilience on personal benefit was the lowest effect size (β = .00).

Table 23

Standardized Direct, Indirect, and Total Estimates of the Path Model for the Negative Attitude Group

Paths		Standardized Estimates (β)
Resilience ⟶ Cognitive Dissonance		
Total		-.06
Direct		-.06
Indirect		-
Resilience ⟶ Change Efficacy		
Total		.02
Direct		-
Indirect		.02
Resilience ⟶ Personal Benefit		
Total		.00
Direct		-
Indirect		.00
Resilience ⟶ Management Support		
Total		.01
Direct		-
Indirect		.01
Resilience ⟶ Appropriateness		
Total		.02
Direct		-
Indirect		.02
Cognitive Dissonance ⟶ Change Efficacy		
Total		-.31*
Direct		-.31*
Indirect		-
Cognitive Dissonance ⟶ Personal Benefit		
Total		-.05
Direct		-.05
Indirect		-
Cognitive Dissonance ⟶ Management Support		
Total		-.22
Direct		-.22
Indirect		-
Cognitive Dissonance ⟶ Appropriateness		
Total		-.31*
Direct		-.31*
Indirect		-

*p < .05

4.6. Summary of the Results

As part of this study, three separate research questions were answered through conducting a One-Way MANOVA and two path analysis. With respect to the first research question, it was found that the magnitude of change calculated for the positive attitude group significantly differed from the control group for the following dimensions of RFOC; personal benefit, change efficacy, and appropriateness. The magnitude of change calculated for the negative attitude group significantly differed from the control group for the dimensions of RFOC as; management support and appropriateness. As expected, it was not found a significant variation for the magnitude of change between the treatment groups in terms of four-dimension of RFOC.

In view of the results, it can be concluded that the *Hypothesis 1* was partially supported in such a way that either positive attitude group or negative attitude group significantly differed from the control group in different factors of RFOC. As for *Hypothesis 2* in which an assumption was made that there would not occur a significant difference between negative attitude group and positive attitude group in terms of the magnitude of change obtained for each RFOC variables. This hypothesis was totally confirmed, indicating that the provided treatments worked well for both attitude groups.

Regarding the second research question, the hypothesized path model yielded an acceptable fit to the data. The results of the respective analysis revealed that cognitive dissonance positively and significantly predicted change efficacy and appropriateness sub-scales of RFOC as assumed. However, two other RFOC variables, management support and personal benefit, were positively correlated with cognitive dissonance, but not significantly predicted by cognitive dissonance. According to these particular results, *Hypotheses 6* and *Hypotheses 4* in which a positive and significant relationship between cognitive dissonance and two RFOC variables (appropriatness and change efficacy) had been hypothesized, were totally confirmed. On the other hand, the results provided partial support for *Hypothesis 3 and 5* in which a positive and significant relationship between cognitive dissonance and two RFOC variables (appropriatness and change efficacy) were hypothesized.

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In relation to the other pathway, between resilience and cognitive dissonance, it was found that resilience did not predict cognitive dissonance as opposed to the assumption. Also, the indirect pathways between resilience and the magnitudes of change obtained for each RFOC varibles through the mediating role of cognitive dissonance were also found non-significant contrary to the assumptions made. In brief, *Hypothesis 7, 8, 9, 10, and 11* were not confirmed.

In the third research question, the respective path model also fitted to the data well. The pathways among the variables indicated that cognitive dissonance negatively and significantly predicted the magnitude of change obtained for two RFOC factors (change efficacy and appropriateness) of RFOC. On the other hand, the rest of the RFOC variables (management support and personal benefit) were not predicted by cognitive dissonance, contrary to the hypotheses offered. Based on the respective findings, *Hypothesis 6* in which a positive and significant relationship between cognitive dissonance and appropriateness had been hypothesized, was partially confirmed because of the negative association between the variables. Likewise, *Hypothesis 4* was partially confirmed, due to a negative relationship between cognitive dissonance and change efficacy. As for the other RFOC variables, *Hypothesis 3* and *Hypothesis 5* were not confirmed.

With respect to the other pathways, the correlation between cognitive dissonance and resilience was found as negative, but at a non-significant level, meaning that resilience did not significantly predict cognitive dissonance. That is, *Hypothesis 7* in which a negative and significant association between resilience and cognitive dissonance had been assumed, was partially supported. Last, the indirect paths between resilience and the magnitudes of change obtained for each RFOC variable were found as significant and positively correlated, in spite of the assumptions made. In short, *Hypothesis 8, 9, 10, and 11* were not confirmed.

CHAPTER 5

DISCUSSION

In this section of the study, the results reported in the previous chapter will be discussed in accordance with the existing literature. This chapter was organized with respect to three research questions. Each of the research questions was separately discussed in order. Next, the derived implications for theory, practice, and research were provided for each research question. Last, depending on the results obtained and the limitations encountered, the recommendations for further research were provided.

5.1. Discussion of the Results

The recent alterations about the recruitment requirements of new teachers in public schools has led all the prospective teachers to be involved in Novice Teacher Training Program (Resmi Gazete, 2016). While this training program, like many other educational change attempts, seemed to have numerous benefits on the part of the prospective teachers, the high failure rate of change attempts and the discontent of teachers with educational change attempts raise concern on the part of scholars, policy-makers, and practitioners. With respect to the precautions to be taken before implementing change initiatives, enough attention should be paid to the initial step of change or unfreezing section (Lewin, 1947) in order to make individuals prepared for the respective change (Armenakis et al., 1999; Bernerth, 2004). In this early stage, an effective communication of change message appears to be vital through focusing on differing aspects of a persuasive change-message such as; personal valence, principal support, discrepancy, appropriateness, and self-efficacy (Armenakis et al., 1999). Based on these recommendations and the usefulness of persuasive change-message

prior to experiencing actual change, the prospective participants of Novice Teacher Training Program can be attitudinally motivated through conveying to them a persuasive change-message. Depending on this perspective, the first research question described below was created and answered.

Upon performing an experimental manipulation of RFOC among the prospective teachers, the magnitude of attitude change (RFOC) observed in the experimentation was assessed through two separate path models, both of which was based on the cognitive dissonance theory (Festinger, 1957). Each path model was generated for two intervention groups (positive attitude and negative attitude), excluding control group. In particular, this study investigated the role of resilience and cognitive dissonance in predicting the magnitude of change obtained for the dimensions of RFOC with respect to the recent educational change. The results of two path models were discussed under the second and third research questions.

5.1.1. The first research question

How do three groups of participants (positive attitude group, negative attitude group, and control group) differentiate in the magnitude of attitude change obtained for each dimension of RFOC?

To answer this particular research question, a quasi-experimental manipulation of attitude-change (RFOC) was executed among the participants. Given the results of the first research question, first, it was found that *Hypothesis 1* was partially supported in such a way that both of the treatment groups significantly differ from the control group in terms of the magnitude of attitude change obtained for each dimension of RFOC. However, only in appropriateness dimension, both treatment groups differ from the control group. Second, the results also indicated that Hypothesis *2* was totally confirmed in which there would not occur a significant difference between negative attitude group and positive attitude group in terms of the magnitude of change obtained for each RFOC variables. In brief, the assumed role of treatments in attitude change for this respective experimental research was almost verified.

The results obtained from the relevant analysis indicated that the main effect of the independent variables (positive attitude group, negative attitude group, and control

group) on the combination of the dependent variables (management support, change-efficacy, personal benefit, and appropriateness) was significant with a large effect size (Cohen, 1988). Regarding the univariate results, similarly, the groups as a combination had a significant and medium to large effect size (Cohen, 1988) on each dependent variable. However, the relative significance of the groups on the factors need to be assessed through comparison of groups to understand the role of each group.

With respect to comparison of three groups in the magnitude of attitude change for each RFOC factor; the participants in the positive group taking negative instruction significantly scored higher magnitude of change in personal benefit dimension than the participants in the control group. However, there did not exist any statistically significant difference between the negative group taking positive instruction and the control group. In a similar fashion, for the personal benefit dimension, there is no statistical difference between the positive group taking negative instruction and the negative group taking positive instruction. Of these results, having found no difference between two intervention groups (positive and negative groups) proves that as expected the communicated change message did not make any difference for the groups because each of the two instruction types (negative instruction or positive instruction) was formulated in order to change the initial attitude of two groups (positive group and negative group) except for the control group.

One surprising finding is that negative group and control group did not differ in the personal benefit dimension while positive group and control group differed in that particular dimension. According to the obtained magnitudes of attitude change between the pre-test and the post-test for the personal benefit dimension, the degrees of attitude-change for the positive group (.84 out of 5.00), the negative group (.37 out of 5.00), and the control group (.07 out of 5.00) seemed to differ. However, the negative group did not show variation as much as the positive group did, in order to statistically diverge from the control group. Considering the personal benefit dimension, meaning individual sense of benefit or organizational valence resulting from the proposed change (Holt et al., 2007b), the negative group who had initially scored lower readiness score (below the cut-off value of 3.16) in the pre-test session was not influenced by the addressed persuasive information about the change plan as

much as the positive group was motivated by the provided information. The greater difficulty of changing attitude among the negative group towards the intended direction suggest that the participants seemed to perceive lesser personal benefit from the proposed change plan even if some positive information about the plan was conveyed to the participants. On the other hand, the group initially having positive attitude towards the change was exposed to opposing information and was easily persuaded compared to the negative group.

As reported in the organizational change literature, the perceived personal need or benefit for the change, and strong rationalizations (Armenakis et al., 1993; Bernerth, 2004) are pivotal to produce supportive reactions towards change. The educational change literature also supports this view by reporting that the usual habits regarded as barrier for teachers' change and creating the sense of urgency was vital to orient teachers towards change (Zimmerman, 2006). Thus, changing old and rooted habits of individuals do not seem easy if their self-interests are threatened (Clarke et al., 1996) through extra work-load (a 642-hour of training program). This finding is also consistent with the extant literature because it is reported that some attittudes are likely to be more resistant toward change because of some underlying factors like direct experience, knowledge, extremity, interests, etc. (Krosnick & Smith, 1994). In a recent study about the attitudes of prospective teachers toward educational reforms, it is noted that prospective teachers do not believe that the recent educational reforms would solve the problems encountered in TES (Duman et al., 2014). The past observations (indirect experience or knowledge) of prospective teachers are likely to make them feel skeptical about the so-called benefit. Supporting this argument, it is reported that teachers appreciate the need for a change based on the poor educational outcomes (e.g., TIMSS & PISA) in the system, but at the same time, they are dissatisfied with the manners employed in change implementations such as lack of participatory decision-making, poor planning, and improper infrastructure (Toprak, 2017). In view of these argumentations, it is not quite surprising that in the current study the negative group did not significantly change their attitudes in spite of being exposed to a positive change-message. Then, it can be concluded that prospective teachers do not fully believe that the so-called "beneficial, revolutionary, or golden like changes" will bring a complete benefit to their personal or professional life. The difficulty of persuading the negative group may also be associated with weak

commitment of the prospective teachers to the MONE (Duman et al., 2014) and the negative perception or bias against the communicated message because McKay et al. (2013) found that affective commitment of individuals to the organization and the sufficiency of change related communications were associated with the perceived personal benefit for a change. In brief, it can be interpreted that the negative group needed a stronger and more convincing change message to be able to feel that the change would provide personal benefit. Also, considering the relatively less attitude change, the group's affective commitment to the organization was likely to be low, which thereby negatively influenced the creation of more personal benefit in spite of given positive messages about the training program.

In addition, in terms of the personal benefit, generating negative attitude did not possess any kind of threat or loss for the prospective teachers' self-interest in such a case, but creating positive attitude on the part of the ones having already negative attitude means that they are willing to leave their initial belief and perceive a personal gain from the proposed change, even if their change history (Bouckenooghe & Devos, 2008) reports the reverse in Turkish educational context (Toprak, 2017). With the same logic, for the positive group, the acknowledged poor record of educational change attempts in Turkish context is also likely to make the ones (initially having positive perception) to easily welcome the information discrediting the change attempts in educational organizations, after being exposed to the negative change-message.

In relation to the change efficacy dimension, it is noteworthy that this dimension of RFOC was measured with the highest mean score for each group in the pre-test session (Positive = 3.98; Negative = 3.07; Control = 3.50), compared to other dimensions of RFOC. It can be concluded that the participants' sense of individual competency for the Novice Teacher Training Program was quite high and they believed that the change did not seem to exceed their powers. The relatively higher change efficacy belief among Turkish prospective teachers is confirmed by the previous studies about the self-efficacy beliefs of prospective teachers in performing their professional tasks (Özdemir, 2008; Kavrayıcı & Bayrak, 2016).

However, after being exposed to opposing information, the positive group noticeably reduced their sense of change efficacy ($M = 3.30$) and the negative group slightly

increased their perception of change efficacy ($M = 3.44$). Although control group was not expected to experience a decrease or increase in the level of change efficacy, a slight increase ($M = 3.64$) was observed. One potential reason behind this slight and non-significant change can be four-week follow-up period between the pre-test and the post-test. During this time, the training program was still a hot topic for the prospective teachers. Through the press and online media, the students could have been informed about the change and generated a direction of attitude. While this is an inevitable internal validity threat for this particular study, the significant difference between treatment groups and control group in some RFOC variables, and the initial homogenous composition of control group by way of selecting from both negative and positive attitude groups may be regarded as a remedy.

With respect to the comparisons of the groups, the magnitude of attitude change in change efficacy dimension was significantly higher for the participants in the positive group than those in the control group. However, there did not exist any statistical difference among other pairs (Positive group vs. Negative group; Negative group vs. Control group). Change-efficacy or change related self-efficacy is defined as the sense of feeling that an individual has the essential abilities or not to perform the tasks associated with the proposed change (Holt et al., 2007b). The results indicated that negative group did not differ from the control group in spite of the communicated change-message. In other words, the participants having held negative belief were not adequately persuaded to believe that they were capable of handling the impending change. As stated in the previous section, the change track of Turkish teachers about the educational reforms was not satisfactory (Toprak, 2017), so changing the initial negative perception towards positive direction would not be an easy task. In addition, the training program already mandates a series of tough tasks like achieving oral and written examinations to be a qualified teacher for getting a permanent position (Resmi Gazete, 2016). Accordingly, the sense of change efficacy among the participants was likely to decrease upon realizing the hard training. While the program was regarded as quite beneficial for the teaching profession and boasted by the minister of education in the provided change message (Appendix F), the positive aspects of the program remained much more related with other stakeholders (MONE, students, & parents) rather than the prospective teachers, who would face an overwhelming task. Parallel to this idea, the positive group seemed to have been

relatively persuaded to perceive that the approaching change with its heavy work-load and strict requirements would exceed their power. The result for the positive group was expected because the Novice Teacher Training Program already offers a range of heavy tasks reported in the literature review part, so this group of the participants became aware of extra work in the impending change, upon reading the negative information. To reaffirm these implications, it is documented that Turkish teachers are aware of the new roles and tasks resulting from the rapid changes and seemed to accept them, but especially young teachers note their lack of skills to respond to the changes and look for some supportive instruction (Akpınar & Aydın, 2007).

The management support factor was also assessed as a dimension of RFOC. This dimension yielded by far the lowest mean scores at the pre-test stage as; positive group ($M = 3.00$), negative group ($M = 2.42$), and control group ($M = 2.76$). This implies that the participants do not anticipate a strong support of management in the change process while the perceived management support was regarded as an important factor to create readiness by strengthening the commitment and emotional involvement of the participants towards the change (Bouckenooghe & Devos, 2007) and to lessen negative employee attitude and cynicism about change (Bommer et al., 2005). Considering that management support stands as an important factor in RFOC, some supportive practices are required to enhance the positive perception of organizational members. As evident in the extant literature, a healthy communication between the top and bottom is suggested to avoid fear and uncertainty (Vakola & Nikolaou, 2005) and a strong supervisor support nurtures the perceived organizational support (Rhoades & Eisenberger, 2002). In that sense, the early positive perception about management support is likely to be helpful to maintain positive readiness attitude for this particular change. With respect to the importance of perceived support from the administrators among Turkish teachers, Zayim and Kondakçı (2015) suggest that a trust-based relationship between teachers and principals contributes to readiness, noting that the feelings of Turkish teachers are commonly ignored with respect to the educational changes. Therefore, paying enough attention to the empowerment of the perceived management support among the prospective teachers will be reasonable.

In relation to the group differences in management support dimension, contrary to the findings in personal benefit and change efficacy, the participants in the negative group significantly yielded higher magnitude of change than the ones in the control group. On the other hand, no significant statistical difference was found for the pairs; the positive vs. the control group; the negative group vs. the positive group.

It was expected that there would be a statistical significant difference between the control group and the negative group, and non-significant difference between the positive group and the negative group. However, it was surprising that the positive group did not meaningfully differ from the control group. It can be concluded that the positive group seemed not to have been persuaded enough about the management support despite the negative instruction emphasizing the adverse aspects of the change. As reported above, compared to the other groups, the positive group had initially the highest mean score ($M = 3.00$ out of 5.00) but it slightly decreased at the post-test ($M = 2.77$). In this group, in order to manipulate their relatively positive attitude from the pre-test stage, a negative information sheet about the proposed change was created, totally depending on the negating comments of two big education unions (Eğitim-Sen and Eğitim-Bir-Sen), informative speeches done in The Grand National Assembly of Turkey (TBMM), and some research findings emphasizing the lack of success in education change attempts. The information sheet focused on the heavy work-load of training, the lack of coordination and mentor teachers in smaller cities, and the use of summer time in the training program. In other words, the change itself mostly depends on the personal efforts of teachers while the management of change remains secondary considering the efforts expected from the novice teachers. In addition, given the speeches in the media and regulations officially announced about the training program, there did not exist any kind of information negating the aspect of management support to influence the participants. Therefore, with respect to the manager's support, the perception of the positive group did not change much while the perceptions in all other dimensions (personal benefit, change efficacy, and appropriateness) yielded significant variation. However, the greater degree of change ($M_{pre\text{-}test} = 2.42$; $M_{post\text{-}test} = 2.96$) for the negative group in the management support can be explained with the positive speeches by the minister of MONE and other administrators. With respect to the supportive attitude of the management in the training process, the visits of the

program participants to the local administrative units to recognize the region where they will be teaching are emphasized. This aspect of the program is likely to be felt as a positive manner of the administrators among the participants of the negative group.

As the last dimension of RFOC, appropriateness referring to the extent to which one feels whether the proposed change is proper for the organization, or not. In this factor, not only the positive group but also the negative group participants significantly scored higher degree of attitude change than the ones in the control group. On the other hand, no statistical difference was observed between the positive group and negative group as expected. Contrary to the other dimensions, both intervention groups meaningfully deviated from the control group. This factor was totally related with the organizational valence of the change or organizational interest. In other words, the participants were expected to express their belief whether this particular change is good for the education system, or not. Depending on the type of information sheet, they perceived either positive or negative aspects of the change without including their self-interests (personal benefit) or self-capabilities (change efficacy). Supporting this implication, the factors of change efficacy and personal benefit were more individual-based and so the orientation of the participants was differently influenced depending on their personal standpoints (negative or positive). In other words, the factors much more pertaining to self-interests cannot be similarly manipulated irrespective of their individual perceptions and attitudes (either positive or negative) because the opposing attitudes may refer to the differing self-interests and concerns as discussed above. To support this argument, in the extant literature, personal valence and self-efficacy were reported as individual factors while management support and appropriateness were associated process and context factors, respectively (Çalışkan, 2011).

To conclude, it is widely accepted that readiness as being the early stage of a change process has been much stressed by the scholars (Rafferty, Jimmieson, & Armenakis, 2013). However, the perception of readiness is shaped through differing aspects or factors of the concept, each of which should be separately assessed and discussed depending on the nature of the factor. As evident form this particular study, the manipulation of the individual perceptions for each dimension of readiness did not

work in the same way, depending on the initial position of the participants (negative or positive) and the importance of the factors pertaining to the self-interests or organizational interests. Also, it should be noted that, by its very nature, each change proposal has to carry various facets relevant to different sides of RFOC. The relative advantages and disadvantages of a typical change are likely to impact each dimension of RFOC level at varying degrees. From this point of view, the policy-makers should pay distinctive attention to each part of RFOC for the sake of a good start in the change process.

5.1.2. The second research question

How do cognitive dissonance and resilience relate with the magnitude of attitude change obtained for each dimension of RFOC in the positive attitude group?

In order to answer this research question, based on cognitive dissonance theory (Festinger, 1957), a path model was designed through identifying RFOC variables as dependent; cognitive dissonance as mediator; and resilience as predictor. In the model, based on the experimentation mentioned above, the calculated magnitude of change for each RFOC variable was utilized as the RFOC score while cognitive dissonance and resilience were represented with the raw scores. Consequently, the magnitude of attitude change in RFOC factors was analyzed with respect to the predictive power of cognitive dissonance and resilience.

Utilizing the data sources described above, the path model was tested and a good model fit was obtained. The results of the path analysis revealed that cognitive dissonance was positively and significantly associated with the magnitude of change experienced in the appropriateness level. These results provide empirical support for *Hypothesis 6* in which a positive and significant relationship between cognitive dissonance and appropriatness was hypothesized. As for the change efficacy dimension, the relevant hypothesis (*Hypothesis 4*) was also reaffirmed. However, it is also important to note that cognitive dissonance was interpreted to predict change efficacy at an almost significant level ($p = .055$), depending on the criticisms about the definition of strict significance levels in social sciences (Gigerenzer et al., 2004; Hubbard & Armstrong, 2006). Therefore, change efficacy was regarded as a predicted variable like appropriateness and discussed in that way. On the other hand,

two other RFOC variables (personal benefit and management support) were found to have positive correlation with cognitive dissonance, but the correlations were not at significant levels. The respective results also yielded partial support for *Hypothesis 3 and 5* thorugh which it can be concluded that cognitive dissonance was related with magnitude of change for personal benefit and management support dimension as hypothesized, but no meaningful relationships were observed. Last, resilience predicted neither cognitive dissonance nor the magnitude of RFOC in the RFOC variables. That is, *Hypothesis 7, 8, 9, 10, and 11* were not confirmed. The following part provides an extensive discussion depending on the literature pertaining to each hypothesis.

Regarding the positive association between the cognitive dissonance and two RFOC variables (appropriateness and change efficacy) among this group of the participants, it was interpreted that increased level of discomfort (cognitive dissonance) among the participants was likely to boost the degree of change they experienced during the experimentation. This assumption was consistent with the theory of cognitive dissonance. When individuals confront with a new order or information opposing to their already held beliefs, they will experience a conflict (dissonance) and look for ways to regain the comfort (consonance) (Festinger, 1957). At the moment of cognitive dissonance, there are two alternatives; rejecting the offered change (belief disconfirmation) (Harmon-Jones, 2002; Festinger et al., 1956) or accepting it (induced compliance) (Festinger & Carlsmith, 1959). In this particular finding, as expected, it was observed that the participants experienced much change from the pre-test ($M_{appropriatenss}$ = 3.75; $M_{change\ efficacy}$ = 3.98) to the post-test ($M_{appropriatenss}$ = 2.90; $M_{change\ efficacy}$ = 3.31) in the relevant RFOC dimensions.

The source of the attitude change may be regarded as the opposing information sheet and subsequent counter attitudinal essay writing process, which was evident from the discussion pertaining the first research question above. In addition, the manipulation check question (*How bad do you feel for the essay you wrote?*) addressed to the participants to assess their level of discomfort (cognitive dissonance) after counter attitudinal essay writing also supports the view that a certain degree of cognitive dissonance was experienced (*M = 2.16*) in the experiment and thereby the increased discomfort among the participants was likely to trigger attitude change in

appropriateness and change efficacy dimensions. This statistical trend was interpreted to suggest that the information sheet and counter attitudinal essay, being the precursor of the attempt in persuasion and conviction, made the participants feel some degree of discomfort or dissonance because of behaving against their initial belief. The cognitive dissonance theory (Festinger, 1957) and subsequent experiments also reaffirmed this implication (Eliot & Devine, 1994; Sastre, 2014). This sense of cognitive dissonance was likely to lead the participants to believe in or accept the new order for the sake of reaching a stability (cognitive consonance) in mind (Burns & James, 1994; Cooper, 2007). Otherwise, it was not easy to deny or forget the task of reading a strong information sheet and subsequent counter attitudinal essay writing happened moments ago. The new order means for the participants to leave their relatively positive attitude at the pre-test as; the appropriateness of the change (e.g., *the offered change is appropriate for the organization*) and the feeling efficacious about the change (e.g., *I can handle the proposed change at ease*), and to adopt a relatively negative attitude toward those RFOC dimensions. Therefore, the degree of discomfort generated through opposing information and essay writing seemed to prompt individuals to change their attitudes.

In relation to the distinctive details behind the experienced change for change efficacy dimension, it is substantive to check the progress of change during the experimentation. The results revealed that change efficacy factor had the highest scores ($M_{pre-test}$ = 3.98; $M_{post-test}$ = 3.31) of all variables at both pretest and post-test sessions, indicating that prospective teachers felt that they were capable of doing the proposed change initiative. Through the executed treatments, the change efficacy score considerably diminished, but it is apparent that the attendants still had a considerable high sense of efficacy belief in maintaining the tasks in the proposed change plan. Supporting this idea, prospective teachers had a high self-efficay belief with respect to the professional tasks they would fulfill in Turkish education context (Ekinci, 2015; Ilgaz, Bülbül, & Çuhadar, 2013). This implies that prospective teachers may have remained relatively confident in their skills for accomplishing the change initiative because of the existence of an already high change-efficacy belief. However, this particular change included a series of heavy tasks listed in the information sheet seemed to threaten the change-efficacy beliefs of the participants because the program requires the attendants to complete 642-hours of tasks.

Therefore, the more self-efficacious individuals at the pre-test felt uncomfortable upon being aware of the negativity of the program at the post-test session. Then, this accelerated discomfort motivated them to lessen their perception of change efficacy. In line with this inference, Bandura (1995) states that social persuasion and vicarious experience affect self-efficacy beliefs. Likewise, the persuasive change message and counter attitudinal essay writing served as an indirect experience and persuading element for the participants to recognize the toughness of the program. Upon a closer examination of the essays written by the participants and the nature of the training program, the participants also seemed to negate the training program through listing those outstanding aspects in their essay-writings such as; *useless, time-consuming, no-piloting, unfeasible, ideological, and tiring*.

In the description of self-efficacy, the generating source of change efficacy, Bandura (1977) listed four factors influencing the sense of self-efficacy. Of those, psychological factors (e.g., distress, fear, personal attributes) were suggested to affect the self-efficacy negatively. In that sense, the created discomfort can be regarded as a negative psychological factor which served as accelerator in attitude change (reduction in the level of change efficacy). In addition, in one other research studying the variables related with change efficacy, it was reported that the perception of higher change related self-efficacy was associated with psychological well-being and reduced perception of work stress (Jimmieson et al., 2004). The sense of discomfort being as negative sentiment is likely to create lesser change related self-efficacy. In this study as well, the greater degree of magnitude of change (reduction in change) can be associated with a sense of discomfort.

Depending on the findings and the derived implications from the extant literature, it can be speculated that the prospective teachers seemed to have high change-efficacy belief for the proposed change. However, they can also generate negative belief when they recognize the toughness of the change. In that sense, considering the importance of high change efficacy belief during the implementation of a change, the policy-makers should pay enough attention to this side of a typical change. Furthermore, some precautions empowering change efficacy belief among the organizational members should be put into practice in the long term as part of a change proposal. From the perspective of cognitive dissonance theory, it was clearly

observed that increasing change related discomfort (cognitive dissonance) could endanger the proposed change by leading attitude change (reduction in change efficacy) among the organizational members. This indicates that the potential discomfort sources in change plannings should also be taken into account.

Regarding the positive and significant relationship between the magnitude of change (reduction) in appropriateness and the cognitive dissonance, it was apparent that the negative information sheet and essay writing were likely to lead individuals to question the appropriateness of the change. In addition, the increased discomfort stimulated the participants to reorganize their stance about the appropriateness of the change. Appropriateness factor had the highest magnitude of change, from the pre-test ($M_{appropriatenss} = 3.75$) to the post-test ($M_{appropriatenss} = 2.90$). This indicates that the positive attitude group was a lot influenced by the change by means of the created cognitive dissonance. Once individuals were convinced that the efforts to be exerted for the proposed change would be proper for the organization, thereby the belief of appropriateness occurs (Self & Schreader, 2009). However, the created discomfort may have cognitively forced the individuals to leave his/her initial belief and to acknowledge the new order. While discussing the role of cognitive dissonance (discomfort) in creating change-appropriateness, it does not seem instrumental to limit ourselves with just the aroused dissonance level because the occurrence of the dissonance necessarily depends on some context-specific aspects (Cooper & Stone, 2001; Wakslak, 2012), which were felt by the organizational members in the information sheet. In this training program, it was probable that some negative aspects of the training were related with change-appropriateness. As a result of these undesirable issues that stimulated the sense of discomfort, the magnitude of change appropriateness diminished, displaying a correlational variation with the created discomfort.

In the Turkish context, it is argued that teacher educators, teachers, and prospective teachers feel a sense of hesitation about the relevancy of the offered changes or educational tasks by MONE (Duman et al., 2014; Türkan & Grossman, 2011; Toprak, 2017), based on the bad track of educational changes observed over time. Owing to this fact, the persuasion of individuals toward the negative direction, who are already hesistant about the practices of MONE, may be easier in this dimension.

In other words, individuals in MONE are likely to reflect cynicism about an educational practice without showing much surprise for the failures. Bearing all these in mind, change implementers should be aware of this distrust among people and proactive and remedial measures should be put into practice in order not to jeopardize any change plan.

Regarding the non-significant associations between cognitive dissonance and two RFOC variables (management support and personal benefit), those dimensions may not have been the sources of the created discomfort for this particular change. That is, the components of the respective change may not include enough of managerial and personal aspects to stimulate the sense of discomfort (cognitive dissonance). Therefore, significant associations were not observed. In relation to the distinctive issues observed in these dimensions, the total attitude score of the participants in terms of management support ($M_{management\ support} = 3.00$) was a lot lower than all other RFOC variables at the pre-test session, meaning that the perceived management support was already low prior to the counter-attitudinal information sheet and essay writing. The degree of attitude change observed from the pre-test to the post-test was also the lowest score ($M_{posttest-pretest} = -.23$) among all other variables. It can be implied that the participants were relatively firm in their attittudes in spite of the aroused cognitive dissonance. This implication is in line with the extant Turkish literature in which the perceived management support (MONE) pertaining to educational issues was argued as not satisfactory among teachers (Toprak, 2017) and prospective teachers (Duman et al., 2014). In short, this dimension of attitude can be regarded as extreme and more resistant to change and thereby the dissonance did not work as expected. The degree of attitude change obtained for personal benefit dimension was quite high like two RFOC variables (change efficacy and appropriateness) and the aroused dissonance was positively correlated with it, but a significant relationship was not observed in spite of that degree of change. It can be speculated that the source of attitude change (variance) may not totally be dependent on the created dissonance, but some other counfounding variables (i.e., self-standards) may exist. This implication was based on the self-standard model of dissonance, extensively discussed by Stone and Cooper (2001).

As opposed to the expectation, resilience did not predict the cognitive dissonance and RFOC variables. Resilience was indicated as an adaptation mechanism and a positive personality trait inhibiting the adverse conditions (Block & Kremen, 1996; Panksepp, 2014). Accordingly, for this particular study, more resilient people were assumed to experience less dissonance related discomfort and thereby less magnitude of change. Such an assumption was based on the studies conducted beforehand. For example, low self-monitors referring to people having less adaptive personality under different social settings were reported to experience more dissonance (DeBono & Edmond, 1989; Snyder & Tanke, 1976). With a similar perspective, extraverts as less neurotic people were found to experience less dissonance (Matz et al., 2008). On the other hand, the discussions in the literature about the role of self-esteem (Aronson, 1992; Steele, 1988; Cooper & Fazio, 1984, as cited in Stone & Cooper, 2000) with respect to the cognitive dissonance provide some implications for the question of why resilience was not associated with cognitive dissonance. Self-esteem was regarded as a component of resilience personality trait (Major et al., 1998). So, the implications derived from the discussions about self-esteem may help us to interpret the particular finding of the study.

The self-standard model proposes "the standard used to interpret and evaluate the meaning of a given behavior determines the role of the self and self-esteem in the process of dissonance arousal" … "the role of the self in dissonance arousal and reduction is a function of the type of self- attributes and standards made accessible in the context of a discrepant behavior." (Stone & Cooper, 2000, p.4). In other words, the context-based interpretations of people about an issue generating dissonance define the role of self-relevant thoughts and self-esteem. Therefore, making specific predictions between cognitive dissonance and self-relevant thoughts seems inappropriate in accordance with the self-standards of people. Based on this explanation, it can be inferred that the potential relationship between resilience and cognitive dissonance is open to some confounding variables (self-standards) that should be explored. In this particular study, some unexplored leading factors pertaining to the self-standards may be influential for not finding a predictive relationship between resilience and cognitive dissonance and thereby RFOC dimensions.

5.1.3. The third research question

How do cognitive dissonance and resilience relate with the magnitude of attitude change obtained for each dimension of RFOC in the negative attitude group?

The organization of the variables, the calculated magnitude of change for each RFOC, and the raw scores for cognitive dissonance and resilience were performed in the same way as they were done in the positive attitude group described above. One important difference for the negative group would be that the calculated magnitude of change referred to the increase in attitude-change from the pre-test to the post-test. Depending on cognitive dissonance theory (Festinger, 1957), one other path model was designed. Following some steps to improve the model, a model-fit was ensured for this particular path, as well.

The results of the path analysis indicated that cognitive dissonance was significantly and negatively related with change efficacy and appropriateness. In other words, increased discomfort was likely to lead to less attitude change in these dimensions of RFOC. In view of these findings, *Hypothesis 6* in which a positive and significant relationship between cognitive dissonance and appropriateness was hypothesized, was partially confirmed because of the negative association between the variables. Similarly, *Hypothesis 4* was partially confirmed, due to a negative relationship between cognitive dissonance and change efficacy. Regarding other RFOC variables, cognitive dissonance was found to have negative correlation with management support and personal benefit, but at non significant levels. The respective results reveal that the *Hypothesis 3 and 5* in which positive and significant relationships had been assumed between cognitive dissonance and management support and personal benefit were not confirmed. In brief, contrary to the assumed role of cognitive dissonance theory (Festinger, 1957) and the positive attitude group, attitude change was not positively associated with cognitive dissonance in this particular group.

Upon examination of other comparable measures for two intervention groups and manipulation check questions, it was observed that the measured cognitive dissonance score for the negative group ($M = 2.54$) was lower than the positive group ($M = 3.12$). It was interpreted that the negative group felt relatively less discomfort because they did not experience a high degree of persuasive information stimulating

them to change their attitude or they did not regard the information sheet as much as the positive group paid attention. In return, they felt less dissonance. The indifference of the participants to the provided information and subsequent essay writing manner seemed to be the basic reasons behind this.

Like positive group participants, the negative group participants were forced to write an influential essay supporting the change program for the sake of an important research (ostensibly) conducted with MONE. However, upon examining their writings, it was observed that the negative group listed some positive sides of the program, mostly depending on the information sheet provided before starting to write the essay, but more than half of them (N = 27 out of 52) also stated their drawbacks about the program in the same writing even if it was not required, indicating their negative hearings, personal experiences, and the bad history of change in the MONE. It was concluded that this group of participants seemed not to confirm what they were forced, depending on their writings. On the other hand, nearly all of the positive group participants (N = 48 out of 52) just defended what they had been requested to write, without putting drawbacks like the negative group. This difference suggest that the negative group held some degree of their negativity about the program even if they were induced to accept the opposing idea while the positive group seemed to be easily persuaded to accept the new attitude and became totally satisfied. This implication could be validated through the magnitude of change that each group experienced in the stages, from the pretest to the post test. Although it was not statistically significant, the positive group seemed to experience much more change, at least 31% more, than the negative group in all dimensions of RFOC, except for the management support. In view of the drawbacks in personal writings and the less magnitude of change, the negative group seemed reluctant to accept the addressed ideas.

Also, it was observed that their degrees of discomfort (cognitive dissonance) were negatively correlated with the magnitude of change (change efficacy & appropriateness) they experienced. This implied that increasing the opposing information (dissonant) and the resultant discomfort feeling would not change their old belief, but were likely to reinforce their resistance by holding on even more tightly to their old belief and making them prisoners of their assumptions. Therefore,

the negative group may have generated a kind of bias against the opposing information.

In relation to the inferences about the mindset of the negative group, some terms like *attitude strength, selective exposure, and confirmation bias* discussed in the literature may be beneficial to elucidate the psychology of the attitudes. In this respect, these terms may provide some additional evidence in terms of exploring the psychology of the negative group. To exemplify this, in a survey of political selectiveness (Sweeney & Gruber, 1984), the group of voters (Nixon supporters, McGovern supporters, and undecideds) were compared with respect to their interest and attention to a famous political affair (Watergate scandal), causing the resignation of Nixon. Being addressed a series of questions about the world wide famous scandal, the supporters of Nixon showed less interest to the affair and seemed to know less than two other groups. The result was quite surprising for the Nixon supporters, especially considering the apolitical stance of undecided voters who may not have paid attention to the affair. This finding was interpreted to suggest that people may fall in to denial by pretending not to have seen the provided evidence. Thus, providing evidence do not mean that people would easily give up their old belief and embrace the new one.

One other evidence from the literature is attitude strength which is defined as "the degree to which an attitude is resistant to change and influences cognition and behavior" (Krosnick & Smith, 1994). Strong attitudes are resistant to change and become steady over time. The difference between strong and weak attitudes is caused by the following attributes; extremity, intensity, importance, and accessibility (Krosnick & Smith, 1994). Contrary to the common assumptions in early attitude research, individuals were found to think and behave favorably toward the objects they actually disliked

However, their confirmation bias or attitude strength led them to be close to the position that they had had, by reflecting less magnitude of change (at least 31% less) than the other intervention group. If the discomfort level could have been elevated with much more positive information and different series of tasks favoring the program, they may have felt that their self-interest or "undeniable true attitude" were under attack of incorrect information. Supporting this feeling among these

participants, as reported above, they could not help emphasizing their strong criticism about the program even if they were induced to write a supportive essay about the program. In that sense, a negative and significant association between the discomfort level (cognitive dissonance) and magnitude of change occurred in this particular group. The assumed effect of cognitive dissonance did not work for this group because the participants seemed to have some prejudices or confirmation biases about the proposed change that the created cognitive dissonance could not lead them to change but resist.

Furthermore, the exclusive undergraduate socialization of the participants at the particular university was likely to promote the development of bias or attitude strength towards the change because the student profile of the respective university was interpreted as more liberal and proactive-oriented (Akın, Çalışkan, & Engin-Demir, 2016), leading them to question the proposed change much more. The historical fame of the university in terms of resistance also affirms the implication of this finding.

Depending on the findings pertaining to the relationship between magnitude of change obtained for RFOC dimensions and cognitive dissonance, and the respective discussions from the extant literature, it can be implied that the course of a typical change initiative should not be framed with a holistic perspective. The distinct difference between negative and positive attitude group confirms the vitality of human side of change in change practices (Beer & Nohria, 2000; Bouckenooghe, 2009; Clegg & Walsh, 2004; Tsouskas & Chia, 2002). The reverse findings between negative attitude group and positive attitude group suggest that individual side of change should be further thought by putting special emphasis on differing attitudes of organizational members. In other words, organizational members are likely to have varying perceptions, cognitive schemas (De Vos, 2002; Weber & Manning, 2001), cybernetics (Morgan, 2006), sense making mechanisms (Weick, 1995), and interpretations about a proposed change even within the same organization. Consequently, the interpretations of individuals about change proposals seem quite critical regardless of the fact that the best change plans are prepared and offered. Based on this, the MONE should consider the varying perceptions and thereby

attitude strengths among its members for the sake of launching a good start in change attempts.

With respect to the role of resilience in the path model, like the previous path model, resilience was not associated with cognitive dissonance and thereby the magnitude of change obtained for each RFOC variables. That is, *Hypothesis 7, 8, 9, 10, and 11* were not confirmed. While it was expected that the state of resilience as an adaptation mechanism (Block & Kremen, 1996; Panksepp, 2014) would ease the process of dissonance, so the individual with higher resilience would feel less dissonance. However, as explained in the second research question, the self-standard model points out that potential self-attributes and standards are likely to define the role of self-relevant thoughts in the process of cognitive dissonance arousal (Stone & Cooper, 2000). Accordingly, a correct prediction between self-relevant thoughts and dissonance is not probable without knowing the self-standards utilized to read and assess the meaning of behavior. Depending on this proposition of Stone and Cooper (2000), it is concluded that the state of resilience in relation to cognitive dissonance may be assessed through detecting those self-standards or confounding variables people have.

In this study, some supplementary questions were asked in order to measure the state of dissonance truly. For example, the issue importance (Novice Teacher Training Program), their feelings about essay writing task, and the importance of the essays they wrote were all examined. Even more, the contents of written essays were checked in order to explore the differing attitudes of groups. All these actually confirm the proposition of Stone & Cooper (2000), the cognitive dissonance experience of people are subject to a number of factors to be controlled. In that sense, depending on the suggestions of scholars, resilience research need to be explored through understating the self-standard approach.

5.2. Implications for Practice, Theory, and Research

Organizational change has become an indispensable part of the organizations. Even if the manner of dealing with change has varied depending on the priorities, organizational structures, technologies, the capabilities and so forth, the one consistent concern about the change attempts has become whether the change will

fail or not, for all organizations including educational organizations. Unfortunately, years of research and discussions in the field of organizational change indicate that change efforts are either entirely or partly far away from the anticipated objectives (Akşit, 2007; Meaney & Pung, 2008). The failure of change attempts does not mean just the failure of the particular change, but waste of time, money, and energy for the organizations. Therefore, depending on the bulk of research in OC literature, paying a scholarly attention to the change initiatives seemed imperative. Bearing these in mind, this study adopted a recent change proposal announced by the MONE (Resmi Gazete, 2016) to experimentally observe the nature of attitude change (RFOC) among the prospective attendants of the training program and to explore some potential variables associated with RFOC. The obtained results and subsequent discussions provided some implications for practice, theory, and research.

First, the initial assessment of RFOC indicated that not all the prospective teachers reported high readiness for the Novice Teacher Training Program. This proves the necessity of taking the early opinions of the organizational members participating in the training program for the sake of a good start and successful end. To achieve the intended goals in the respective training program, the policy-makers and change implementers in the MONE should pay enough attention to this side of organizational change.

Second, based on the results obtained, the effectiveness of persuasive change messages on the manipulation of the prospective teachers' attitudes towards the program verified the practicability of this strategy in change attempts. The administrative units in the MONE may employ the verified strategies through focusing on the differing facets of RFOC. The discrepancies in the magnitude of attitude change in RFOC dimensions also imply that the nature of proposed changes made some issues (e.g., management support or feeling self-efficacious) more prominent for organizational members, and so the individual orientation or readiness may be shaped in that way. Being aware of the basic matters in a typical change, which are much more likely to influence individual attitude, seems important for the practitioners and the researchers for detecting real problems and providing useful solutions. It is also critical that the attitude poles identified as negative and positive did not vary in the same amount and way as expected in this study. In that sense, the

nature of having positive attitude or negative attitude towards a typical change should be separately and carefully handled rather than adopting a holistic perspective. Having diverse ideologies, biases, and assumptions about a change, individuals would reflect differing degrees of resistance or readiness during the change process. Although it was not possible to categorize individual assumptions, the common predispositions or assumptions of people about a particular change can be explored and thereby the appropriate strategies can be employed.

Third, cognitive dissonance, as a pioneer research area in social psychology and much regarded for attitude change process in various fields, was applied within the context of educational change. The findings reaffirmed the role of cognitive dissonance in attitude change. The arousal of cognitive dissonance state and subsequent attitude change may be informative for the change implementers. The association of cognitive dissonance with RFOC variables may also open a venue of research for the scholars in the field.

Forth, as part of this study, the RFOC scale (Holt et al., 2007b) was translated into Turkish, ensuring the required validity and reliability standards. Much attracting the scholarly community in the organizational change field, the scale has taken a considerable attention of the scholars since its development (e.g., McKay et al., 2013; Santhidran, Chandran, & Borromeo, 2013). In addition, the development of the scale was established by noteworthy scholars in the field of organizational change and readiness for change, depending on the years of numerous research in that area. In that sense, adaptation of such a noteworthy scale to education context would be beneficial.

Fifth, given the years of research about change, it is apparent that the quasi-experimental tradition in organizational change or educational change fields is not commonly employed by the researchers, probably owing to the difficult nature of designing an experimental setting. Through this study, an experimental exploration of attitude change was enabled and insightful findings were obtained. The use of quasi-experimental design contributed to the exploration of attitude change in time.

Last, being a prominent concept of social psychology, the cognitive dissonance theory was investigated with respect to the educational change. Hence, Turkish

adaptation of cognitive dissonance scale was made by satisfying the required validity and reliability checks. Turkish version of a cognitive dissonance scale is likely to be valuable for the studies exploring attitude change.

5.3. Limitations and Recommendations for Further Research

Based on the theoretical and methodological limitations, recommendations for further research were reported below.

First, in this study, a pretest/posttest quasi-experimental design with nonequivalent groups was employed, participants of which were from 10 intact classes. Therefore, one important limitation is lack of random sampling, which limits the generalizability of the findings. Further research with true experimental designs will be valuable in order to validate the findings. Also, the design of the study was established as assessment-only control group instead of active control condition. This raises some concerns whether the attitude changes associated with the treatment conditions are just related with the information sheets and counter-attitudinal essay writing. In future studies, this concern can be eliminated through creating an active control group.

Second, the participants of the study were undergraduate students who would attend the Novice Training Program in near future. However, they were not the real employees of the MONE and so a little far away from the actual implementation of the change at the time of the study. In further studies, adopting a different change proposal, a similar study can be conducted with the employed teachers in the MONE to explore the adventure of attitude change through cognitive dissonance experience. In addition, the sample of the study was limited with the undergraduate students of a public university in Ankara. As a result, the generalizability of the findings was limited. Further studies may be conducted with different student groups from other universities, and also more representative samples generalizable to the entire country. As the stakeholder of this training program, responsible mentor teachers and top and sub-administrative personnel can be taken as a source of sample in order to better explore the applicability of the training program.

Third, the time interval between pre-test and post-test was four-weeks. Although the selection of the timing was based on a former study (Elliot & Devine, 1994), the

study can be replicated with longer time intervals in order to see the potential effect of timing. In this study, it should be noted that a cross-sectional data collection was followed. However, a longitudinal study can also be applied to explore the attitude change as, initiation, implementation, and institutionalization over time. Such a long and comprehensive measurement of change process is likely to yield insightful results.

Fourth, the application of cognitive dissonance in Turkish context can be validated through new studies. While the theory has much attracted the attention of scholars in the field of social psychology, the education context, especially educational change field, seems to be far away from taking advantage of the assumptions proposed by cognitive dissonance theory.

Fifth, it seems evident that the magnitude of RFOC is different from the state of RFOC in understanding the course of the concept. The calculated magnitude of RFOC provided different sources of interpretation in this study. In future studies, the magnitude of RFOC can be measured and assessed with respect to the variables already associated with RFOC in the literature.

Last, the contextual power of instruction types addressed to the participants from positive or negative group may be a limitation. In order to maintain the similarity for each treatment group, a wide range of information in each instruction sheet was quantitatively and verbally checked and compared. Also, the objectivity of the instructions in the sheets was ensured, only depending on the speeches of top administrative people from the MONE, statements of two prominent education unions, speeches done in the Parliament, and research findings. Even if the respective precautions were taken for the study, the perceived contextual effect of the information in either text may be a limitation for the post-test scores. On the other hand, it is also important to note that if the change proposal had been imaginary reflecting each aspect of RFOC dimension equally, the manipulation of attitude-change may not have been influenced by the nature of the respective change because it is also a matter of concern whether the attendants of such a study can be well convinced of a hypothetical change proposal. In future research, these concerns can be eliminated through paying attention to the respective issues.

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APPENDICES

A. Approval Letter from METU Human Subjects Ethics Committee

APPLIED ETHICS RESEARCH CENTER

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04 MAYIS 2016

Gönderilen: Yrd.Doç.Dr. Gökçe GÖKALP

Eğitim Bilimleri

Gönderen: Prof. Dr. Canan SÜMER

İnsan Araştırmaları Etik Kurulu Başkanı

İlgi: Etik Onayı

Sayın Yrd.Doç.Dr. Gökçe GÖKALP danışmanlığını yaptığı doktora öğrencisi Ömer ÇALIŞKAN'ın "Examining Readiness for Organizational Change through the Relationship between Cognitive Dissonance and Resilience" başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülerek gerekli onay **2016-EGT-072** protokol numarası ile **16.05.2016-16.05.2017** tarihleri arasında geçerli olmak üzere verilmiştir.

Bilgilerinize saygılarımla sunarım.

Prof. Dr. Canan SÜMER
İnsan Araştırmaları Etik Kurulu Başkanı

B. Sample Items from RFOC Scale

Bu bölümde, "ADAY ÖĞRETMENLİK UYGULAMA PROGRAMI" konusuna ilişkin sizin fikrinizi almaya yönelik 25 ifade bulunmaktadır. Lütfen her bir ifadeyi okuyarak, **(1 Hiç Katılmıyorum)** ve **(5 Tamamen Katılıyorum)** olmak üzere 1'den 5'e kadar size en uygun seçeneği (X) ile işaretleyiniz.

1. Bu değişimin, okullar için faydalı olacağını düşünüyorum.
2. Milli Eğitim Bakanlığı, bu değişimi benimsememiz için bizi teşvik etmektedir.
3. Bu değişimden dolayı, bu işteki geleceğim sınırlandırılmış olacaktır.
4. Kafama koyarsam, bu değişim hayata geçirildiği zaman gerekli olacak olan her şeyi öğrenebilirim.
5. Tüm üst düzey yöneticiler (Milli Eğitim Bakanı ve diğer yetkililer), bu değişimin önemini vurgulamaktadır.
6. Bu değişim uygulandığı zaman, bana bir fayda sağlayacağına inanmıyorum
7. Bu değişim uygulandığında, mesleğimdeki konumuma/statüme zarar geleceğinden endişe ediyorum.
8. Bu değişim işimi kolaylaştırır.
9. Değişimi gerçekleştirdiğimizde yapılması gereken bazı işleri, iyi bir şekilde yapabileceğimi düşünmüyorum
10. MEB, okullara bu değişimin gerçekleşeceğine dair açık bir mesaj vermektedir.
11. Bu değişimi yapmamızın geçerli nedenleri var.
12. Okullar adına karar veren üst düzey yetkililer (Bakan ve diğer yetkililer), bu değişim çabasını tüm güçleriyle desteklemektedir.
13. Bu değişim, Milli Eğitim Bakanlığı'nın öncelikleri ile örtüşmektedir.
14. Milli Eğitim Bakanı, bu değişime kendisini adamıştır.

C. Sample Items from Resilience Scale

Lütfen aşağıdaki ifadeleri dikkatle okuyunuz ve her bir ifadenin sizi ne ölçüde tanımladığını işaretleyiniz. (**1 Hiç Katılmıyorum**) ve (**5 Tamamen Katılıyorum**) olmak üzere 1'den 5'e kadar size en uygun seçeneği (X) ile işaretleyiniz.

1. Arkadaşlarıma karşı cömertimdir.

2. Beni allak bullak eden durumların üstesinden çabucak gelirim ve kısa sürede kendimi toparlarım.

3. Yeni ve alışılmadık durumlarla uğraşmak hoşuma gider.

4. İnsanlar üzerinde olumlu izlenim bırakmada genelde başarılıyımdır.

5. Daha önce hiç tatmadığım yeni yiyecekleri denemekten hoşlanırım.

6. Çok enerjik bir insan olarak tanınırım.

D. Sample Items from Cognitive Dissonance Scale

Aşağıda sizi kısmen tanımlayan (ya da pek tanımlayamayan) bir takım özellikler sunulmaktadır. Lütfen aşağıda verilen özelliklerin **tam olarak şu anki duygularınızı** ne oranda yansıttığını ya da yansıtmadığını belirtmek için sizi en iyi tanımlayan rakamı her bir özelliğin yanına yazınız.

1 = Hiç katılmıyorum

2 = Pek katılmıyorum

3 = Ne katılıyorum ne de katılmıyorum (kararsızım)

4 = Biraz katılıyorum

5 = Tamamen katılıyorum

Şu an kendimi .... hissediyorum.

_____

___   1. Rahatsız/sıkıntılı

___   2. Öfkeli

___   3. Utanmış

___   4. Huzursuz/kaygılı

___   5. Cana yakın/Sıcakkanlı

___   6. Nefret içinde

E. Information Sheet for Positive Attitude Group

Milli Eğitim Bakanı Nabi Avcı, aday öğretmenlik sürecine ilişkin şu şekilde açıklamalarda bulundu:

"Toplam 774 saat olan Aday Öğretmen Yetiştirme Programı, 1 Mart 2016'dan 31 Ağustos 2016 tarihine kadar sürecek ve yeni öğretmenler 1 Eylül 2016´dan itibaren yeni görev yerlerinde hazır olacaklar.

İlk 16 haftasında aday öğretmenler, danışmanları eşliğinde haftanın üç günü sınıf içi gözlem ve uygulamalar yapacak. Ders planlaması, ön hazırlık, değerlendirme çalışmalarına katılacaklar. Haftanın bir günü okul içi faaliyetler kapsamında okul içindeki idari, mali, sosyal, kültürel faaliyetleri izleyip, bunlarda görev alacaklar. Aday öğretmenlerimiz haftanın bir günü okul dışı faaliyetler kapsamında yaşadığı ilin kültürel, tarihi özellikleri tanıtıcı faaliyetler yürütecekler, valilik, kaymakamlık, belediye başkanlığı, il, ilçe milli eğitim müdürlüğü gibi kurumların işleyişi hakkında bilgi edinecekler. İl, ilçesinde bulunan rehberlik ve araştırma merkezi, bilim ve sanat merkezlerinde, halk eğitim merkezlerinde gözlem yapıp, işleyiş hakkında bilgi sahibi olacak. Aday öğretmenler emekli öğretmenler ve eğitime gönül vermiş kişilerle bir araya gelecek, tecrübelerinden yararlanacaklar.

Bu okul içi ve okul dışı faaliyetler toplam 16 hafta sürecek, 474 saatlik faaliyet programı uygulanacak. Yaz aylarında da 10 haftalık, 50 gün, 300 saat sürecek seminer, kurs türü çalışmalarımız olacak. Yazın yapılacak seminerler kapsamında farklı dil ve lehçelerin yoğun olarak kullanıldığı bölgelere gidecek aday öğretmenler, yörenin folkloru, kültürü ve insanlarıyla daha rahat iletişim kurabilmeleri amacıyla iki hafta boyunca, Türkçe dışında yaygın olarak kullanılan Kürtçe, Arapça, Çerkezce gibi dil ve lehçelerle ilgili temel düzeyde iletişim sağlayabilecekleri bir dil eğitiminden geçirilecekler." (5 Mart, 2016; TBMM Genel Kurulu)

Eğitim-Bir-Sen İstanbul 3 Nolu Şube Başkanı Erol Ermiş, aday öğretmenlik sürecine ilişkin yaşanmakta olan bazı sorunları şu şekilde ifade etti:

"Bazı aday öğretmenlerin atandığı okul ile staj yaptığı okulun tür ve kademesi arasında farklılık var. Liseye atanan bir aday öğretmen ortaokulda staj yapabiliyor. Ya da RAM'a (Rehberlik Araştırma Merkezi) atanmış bir rehber öğretmen, okullarda staj yapıyor. Bazı il ve ilçelerde yeterince danışman öğretmen belirlenmediği anlaşılınca göreve başlama sürecinde gecikme oldu.

Aday öğretmenlik sürecinin en çok eleştiri alan tarafı, aday öğretmenlere yaz tatili öngörmemesidir. Bu durum, eylülde başka ilde göreve başlayacak aday öğretmenler açısından sıkıntılı. Zira 2 Eylülde yeni görev yerinde olacaklar ve 12 Eylülde okullar açılacak. Ağustos ayı boyunca hizmet içi eğitim alacakları için yeni görev yerine yerleşme noktasında problem yaşayacaklar. Ayrıca yaz sıcağında bu kadar yoğun programın uygulanması ise eleştirilen diğer bir nokta." (16 Nisan, 2016; Eğitim-Bir-Sen)

Bilimsel Araştırmalara göre;

Kurumlarda girişilen değişim çabalarının %70'i başarısızlıkla sonuçlanmaktadır (Beer & Nohria, 2002).

Türkiye'de, eğitime ilişkin değişim uygulamaları hakkında paydaşlardan (öğretmen, veli, vb.) görüş alınmaması, bu değişimlere karşı olumsuz bir tutum oluşmasına neden olmakta ve eğitim reformlarını başarısız kılmaktadır (Töremen, 2002).

F. Essay Writing Sheet for Positive Attitude Group

Araştırmamız kapsamında, "ADAY ÖĞRETMENLİK" uygulamasının hangi açılardan **faydasız/verimsiz** olabileceğine ilişkin görüş almaya çalışıyoruz.

Farklı kişilerden, bu uygulamanın **gereksiz/verimsiz** olabileceğine ilişkin çeşitli görüşler edinmiş durumdayız. Sizden de bu uygulamanın ne açılardan **gereksiz/ verimsiz** olabileceğine ilişkin güçlü ve ikna edici bir yazı yazmanızı istiyoruz. Düşüncelerinizi maddeler halinde veya paragraf şeklinde ifade edebilirsiniz.

Süreniz 10 dakika

Katılımınız için teşekkürler.

G. Information Sheet for Negative Attitude Group

Milli Eğitim Bakanı Nabi AVCI,
Gaziantep'te aday öğretmenlerle bir araya geldiğinde şunları ifade etti:

"Bu (aday öğretmenlik) çok iyi oldu. Çünkü eskiden okulların açılmasına 15 gün kala öğretmenler atandıkları kentlere gidiyor ve kültürünü, folklörünü bilmediği kentte çalışıyordu." **(11 Mayıs, 2016; TRT Haber).**

Öğretmen Yetiştirme ve Geliştirme Genel Müdürü Semih Aktekin,
aday öğretmen yetiştirme süreciyle ilgili ayrıntıları anlattı:

Aday öğretmenler kendi alanlarından bir danışmanla sınıf içi, okul içi ve okul dışı olmak üzere çalışmalar yapacaklar.

Sınıf içinde danışman öğretmen eşliğinde haftanın 3 günü ders öncesi hazırlık, plan, materyal hazırlama ve ders gözlemleme gibi süreçleri izleycek. Okul içi çalışma kapsamında da haftanın bir günü ilgili müdür yardımcısıyla okulların genel işleyişini (zümreler, veli toplantıları, vb.) tanıyacak.

Okul dışı çalışma için haftanın bir günü, adayların bulunduğu şehri tanımasına dönük, şehrin tarihsel, kültürel, coğrafi özelliklerini tanımasını, müzeleri, kütüphaneleri gezmesini ve mekanları eğitim amaçlı nasıl kullanabileceğini araştırmasını isteyeceğiz. Ayrıca öğretmen adaylarının ildeki halk eğitim, bilim, sanat ve rehberlik araştırma merkezleri, sivil toplum kuruluşları, belediyeler ve kaymakamlıkları ziyaret ederek, bunların işleyişlerini ve eğitim imkanlarından nasıl faydalanabileceklerini gözlemleyecekler. Ayrıca, çeşitli atölyelerde de üniversitelerin, sivil toplum kuruluşlarının, emekli öğretmenlerin ve merkez teşkilatındaki eğitimcilerin tecrübelerinden faydalanmaları için ziyaretler yapacaklar.

Öğretmen adaylarımız, Kürt ya da Çerkez nüfusun yoğun olduğu yere gidecekse tabii buralarda çoğunluk Türkçe konuşuyor ama günlük hayatta Türkçe bilmeyen veya az kullanan insanlarla da daha rahat iletişim kurması açısından programın son iki ayında, belli haftalarda yörelerin kültürel özelliklerine göre de eğitim alacaklar.

Film izlemelerini, yine eğitimle ilgili çeşitli kitaplar okumalarını isteyeceğiz. Buradaki hedefimiz entelektüel birikimlerine katkı sağlamak. Örneğin doğu ve güneydoğuya giden arkadaşlarımız 'İki Dil Bir Bavul' filmini izlediklerinde belki de kendilerinden bir şey görecekler. Yine eğitimle ilgili birçok öğretmenimizin izlediği 'Ölü Ozanlar Derneği', '3 Idiots' filmleri var. Bunları izlemelerini tavsiye edeceğiz.

Son olarak, Ankara'da adaylık sürecini geçirecek adaylarımızın bir kısmı, Bakanlığımızın merkez teşkilatında bir günlerini geçirecekler. Milli Eğitim Bakanımızın, Müsteşarımızın ve ilgili genel müdürlerimizin bürolarında öğretmen adaylarını ağırlayacağız ve Bakanlık merkez teşkilatının nasıl çalıştığını, günlük işlerin nasıl koordine edildiğini yakından görecekler **(18 Şubat, 2016; Anadolu Ajansı).**

Bilimsel Araştırmalara göre;

Öğretmenlik mesleğindeki ilk yıl öğretmenlik kariyeri için dönüm noktası, hayatta kalma çabasıdır (Sarı & Altun, 2015).

Öğretmen eğitimi programından mezun olan bireyler ne kadar iyi olurlarsa olsunlar öğretmenlik mesleğine başlamalarını takiben gerçek dünyanın problemleri ile karşı karşıya kalmaktadır (Yalçınkaya, 2002).

H. Essay Writing Sheet for Negative Attitude Group

Araştırmamız kapsamında, "ADAY ÖĞRETMENLİK" uygulamasının hangi açılardan **gerekli/verimli** olabileceğine ilişkin görüş almaya çalışıyoruz.

Farklı kişilerden, bu uygulamanın **gerekli/verimli** olabileceğine ilişkin çeşitli görüşler edinmiş durumdayız. Sizden de bu uygulamanın ne açılardan **gerekli/verimli** olabileceğine ilişkin güçlü ve ikna edici bir yazı yazmanızı istiyoruz.
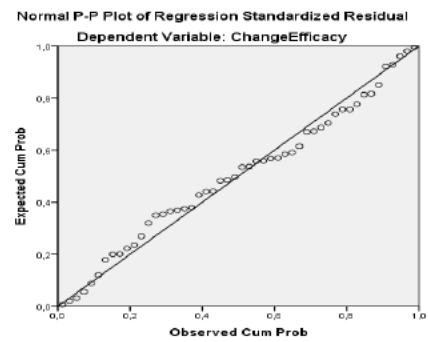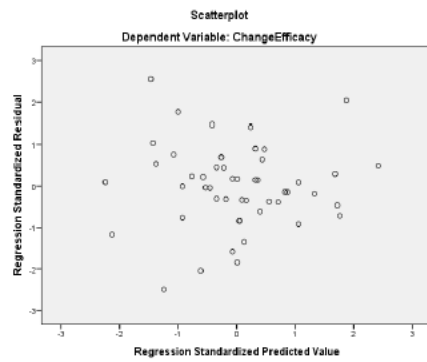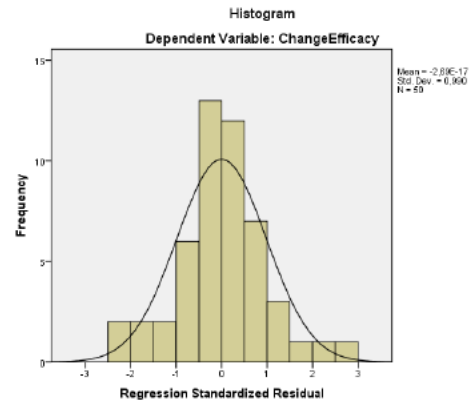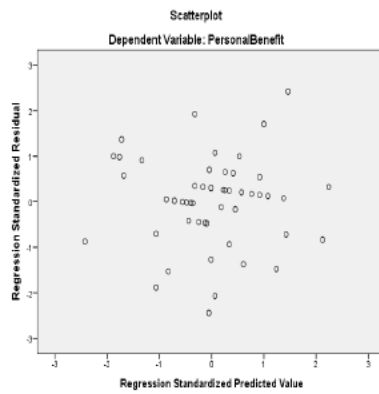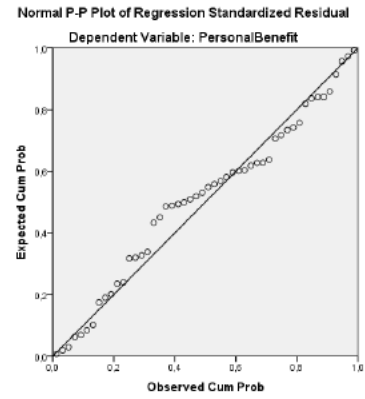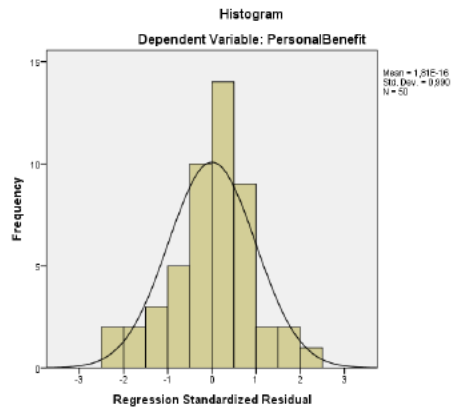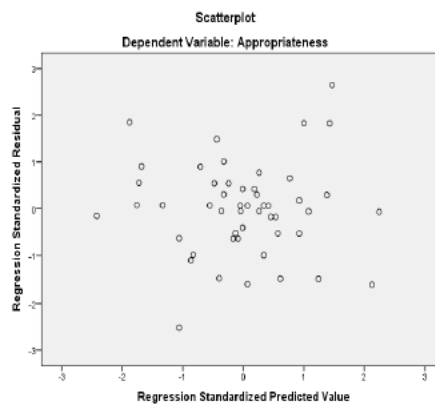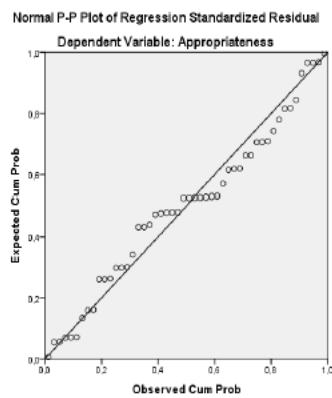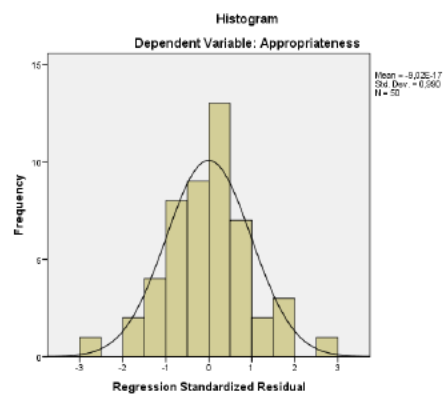
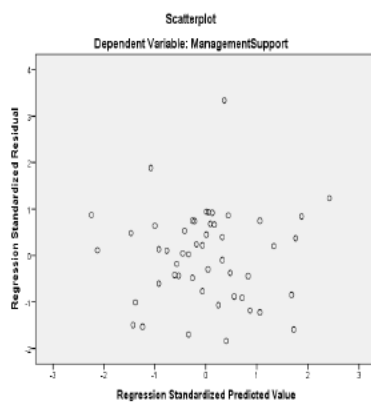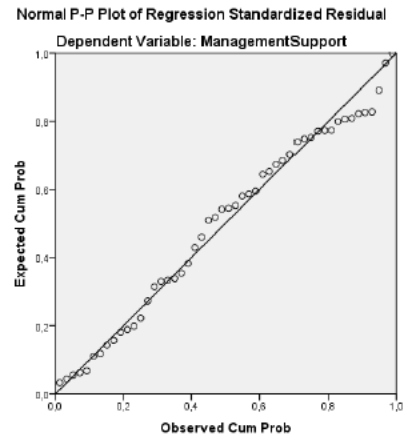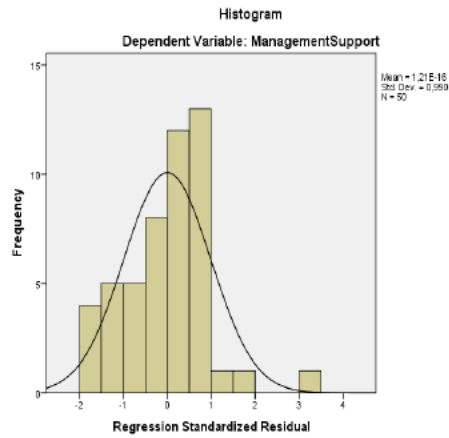Düşüncelerinizi maddeler halinde veya paragraf şeklinde ifade edebilirsiniz.

Süreniz 10 dakika

Katılımınız için teşekkürler.

I. Residual Plots (Negative Attitude Group)

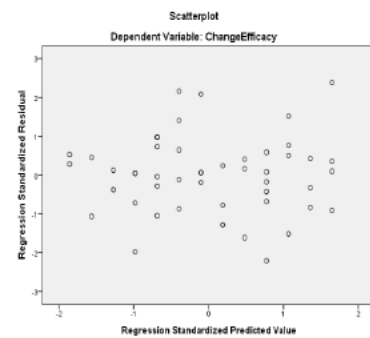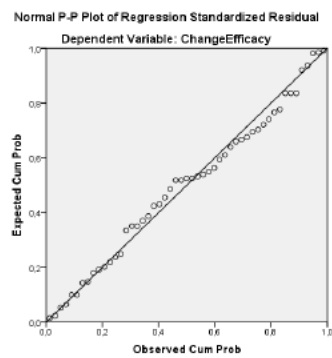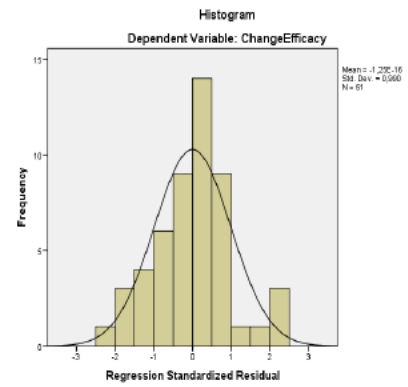### Histograms, Scatterplots, and Normal P-P Plots of Residuals

Histogram
Dependent Variable: ManagementSupport

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: ManagementSupport

Scatterplot
Dependent Variable: ManagementSupport

Histogram
Dependent Variable: Appropriateness

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Appropriateness

Scatterplot
Dependent Variable: Appropriateness

J. Residual Plots (Positive Attitude Group)

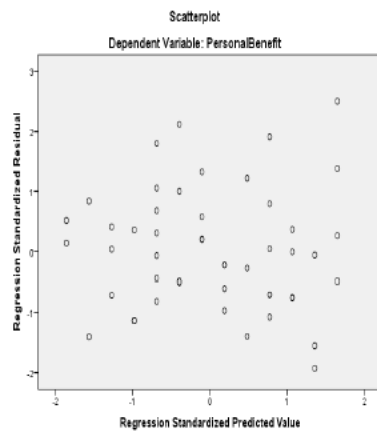### Histograms, Scatterplots, and Normal P-P Plots of Residuals

Histogram
Dependent Variable: PersonalBenefit

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: PersonalBenefit

Scatterplot
Dependent Variable: PersonalBenefit

Histogram
Dependent Variable: ChangeEfficacy

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: ChangeEfficacy

Scatterplot
Dependent Variable: ChangeEfficacy

Histogram
Dependent Variable: ManagementSupport

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: ManagementSupport

Scatterplot
Dependent Variable: ManagementSupport

Histogram
Dependent Variable: Appropriateness

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Appropriateness

Scatterplot
Dependent Variable: Appropriateness

K. Estimated Error Covariances of the Path Analysis for Negative Attitude Group
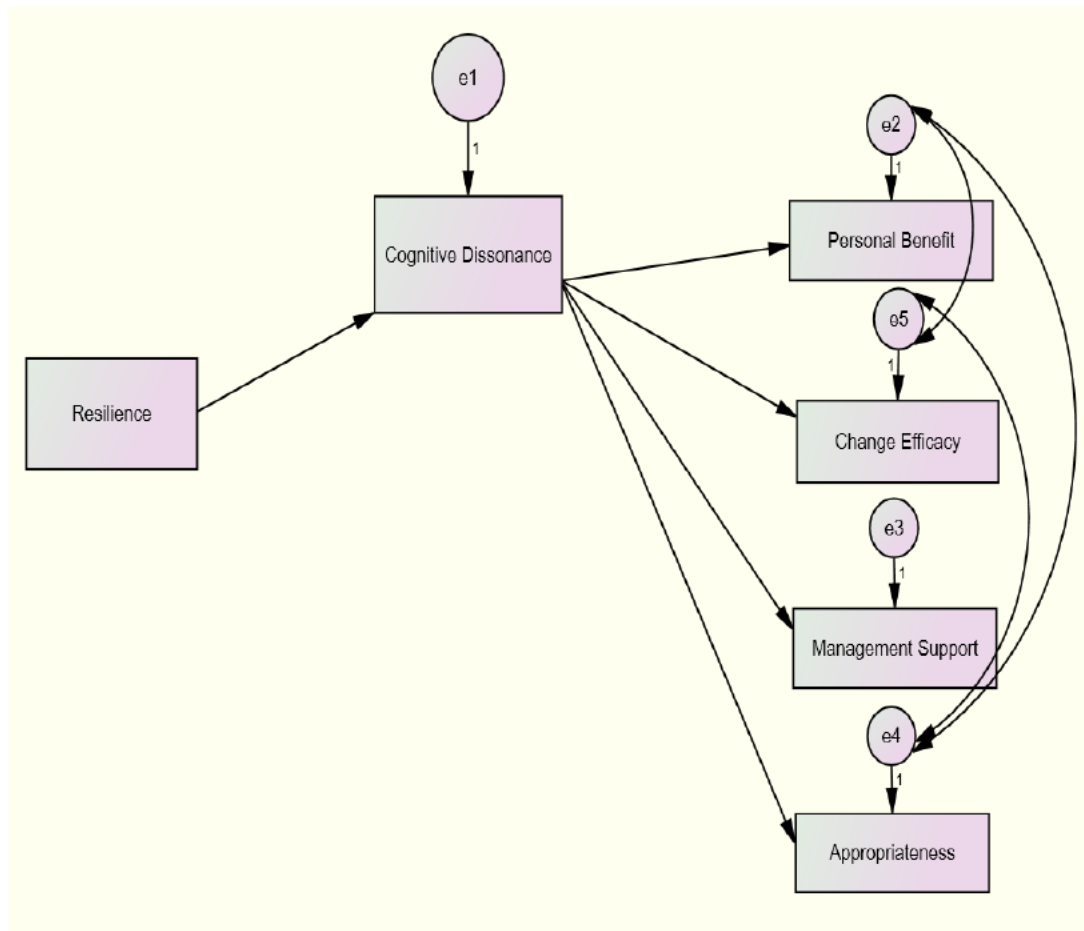
L. Estimated Error Covariances of the Path Analysis for Positive Attitude Group

M. Activities in Novice Teacher Training Program

Novice Teacher Training Program*

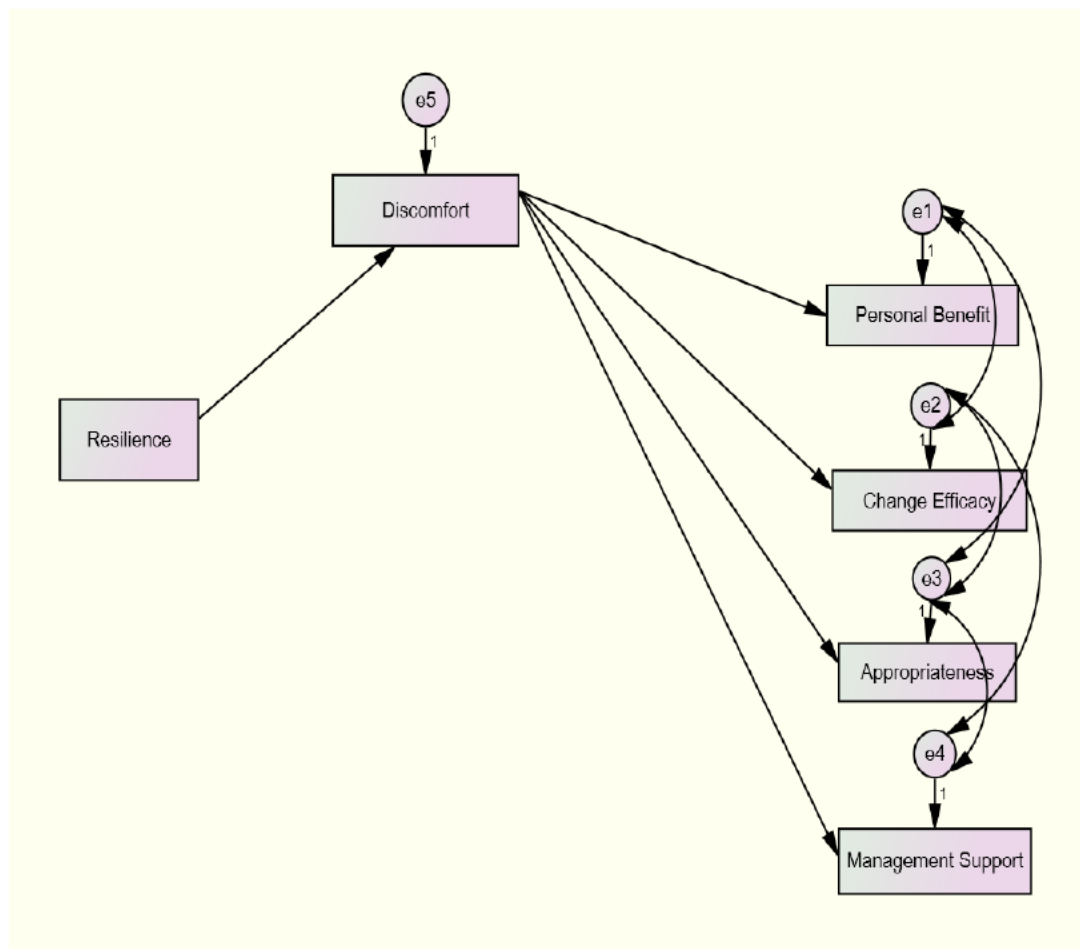| Type of Activities	Number	Tasks	Hours
In-Class and In-School Activities (384 Hours)	1	Lesson Plan/Preparation/Evaluation	144
	2	Classroom Practice	90
	3	Classroom Observation	54
	4	In-school Observation and Practices	96
Activities out of school (90 hours)	5	Exploring City Identity	18
	6	Institutional Process	18
	7	Schools Beside Us	18
	8	Meeting with the Experienced (People)	12
	9	Volunteerism and Entrepreneurship Practices	12
	10	Professional Development and Career	12
Reading Book	11	Reading Book (5 books)	
Watching Film	12	Watching Film (10 films)	
In-Service Training (168 Hours)	13	Democracy Adventure in Turkey	6
	14	Multiculturalism in Anatolia, Sources, and Reflections on Education	60
	15	The Basics of Education in Culture and Civilization	18
	16	From Yesterday to Today: Teaching Profession	12
	17	Human Values and Professional Ethics	12
	18	Regulations about Teaching Profession	12
	19	Effective Communication and Classroom Management	12
	20	Current Issues in National Education System	12
	21	Education System of Developed Countries, The Effects of International Organizations on Education System	12
	22	National and International Education Projects and Samples	12
Total			642 hours

*The starting date of training program depends on the assignment period (February, August, or November) of new teachers during the year.

N. Permission to Use RFOC Scale

From:	"Holt, Danny" <DHolt@business.msstate.edu>
Subject:	FW: permisson for scale
Date:	Tue, March 29, 2016 12:36 am
To:	"omerc@metu.edu.tr" <omerc@metu.edu.tr>

Omer,

You are welcome to use the scale. I have attached a copy of the paper that includes
the final set of items and one of the questionnaires we used to collect the data.
As you review the questionnaire, you should note that it includes items that didn't
"survive" the EFA screening and included additional scales that we used to measure
convergent and divergent validity.

Good luck and let me know if I can be of further assistance,

Danny

DANIEL T. HOLT
Associate Professor of Management
Department of Management & Information Systems
Mississippi State University
Phone: 662.325.5101
e-mail: daniel.holt@msstate.edu<mailto:daniel.holt@msstate.edu>

O. Permission to Use Cognitive Dissonance Thermometer

```
------------------------- Original Message -------------------------
Subject: RE: Scale permission (cognitive dissonance thermometer)
From:    omerc@metu.edu.tr
Date:    Mon, March 21, 2016 2:11 pm
To:      "Elliot, Andrew" <andrew.elliot@rochester.edu>
--------------------------------------------------------------------


Dear Elliot,

Thanks a lot for the permission.

All the best,

Ömer

...
> You have my permission.
>
> Andrew
>
> -----Original Message-----
> From: omerc@metu.edu.tr [mailto:omerc@metu.edu.tr]
> Sent: Sunday, March 20, 2016 3:43 PM
> To: Elliot, Andrew
> Subject: Scale permission (cognitive dissonance thermometer)
>
> Dear Elliot,
>
> I am a doctoral student from Turkey. In my dissertation, I would like
> to use your "Cognitive Dissonance Thermometer" if you could give permission.
>
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P. Permission to Use Ego-Resiliency Scale

Merhaba Ömer,

Bence de Ego-Resilience daha uygun bir ölçek. Psikometrik özellikleri de
iyi. Doktora tez çalışmamda detayları bulabilirsin.
Desen Yalım'ın yüksek lisans tezinde de ölçek var.
Çalışmanda başarılar dilerim.

Doç. Dr. Özlem Karaırmak

2016-03-24 14:27 GMT+02:00 <omerc@metu.edu.tr>:

> Merhaba Özlem hocam,
>
> Ben Ömer Çalışkan, ODTÜ-Eğitim Bilimleri'nden. Daha önce, yılmazlık
> ölçeğinin kullanımı ile ilgili sizinle yazışmıştık. Sizin de tavsiyeniz
> üzerine, yılmazlık kavramını, Conor-Davidson ölçeğini ve asıl makaleyi
> inceledim. Ayrıca, tez izleme komitemdeki hocalar (Yaşar Kondakçı & Gökçe
> Gökalp) ile görüştüm bu konuyu. Conor-Davidson ölçeğini kullanmamanın daha
> doğru olacağına karar verdik. Farklı yılmazlık ölçeklerini inceledim.
>
> Sonuç olarak, yine sizin çevirmiş olduğunuz, Ego-Resiliency Scale (Block &
> Kremen, 1996) adlı ölçeği üniversite öğrencilerine uygulayabileceğime
> karar verdim. İzin verebilirseniz, çevirisini yaptığınız ölçeği kullanmak
> istiyorum.
>
>
> Teşekkürler.
>
. ×

1. GİRİŞ

Eğitimsel değişim çalışmalarının tarihsel gelişimine bakıldığında, bilimsel bir çalışma alanı olarak ortaya çıkışı II. Dünya Savaşı sonrasına denk gelir (Lieberman, 2014), eğitime ilişkin değişim kavramı ise 19. yüzyılın ortalarına kadar uzanır (Cuban, 1990). O zamanlardan bu yana eğitime ilişkin değişim çalışmaları o kadar yaygın hale geldi ki, eğitim politika önceliği ve öncelikli medya konusu haline dönüştü ancak eğitime ilişkin değişim girişimleri çabası, değişimlerin etkili bir biçimde nasıl uygulanacağına dair konunun ötesine geçti (Hargreaves, Lieberman, Fullan ve Hopkins, 2014). Bir önceki uygulamaları sürekli olarak ortadan kaldıran, sık değişim çabaları göz önüne alındığında (Cuban, 1990; İnal, 2012), sürekli girişilen değişimlerin, öngörülen hedeflerden tam veya kısmen uzak olduğu ortaya çıkmaktadır (Akşit, 2007; Gaziel, 2010). Buna bağlı olarak, eğitimdeki değişim girişimleri ile ilgili oluşan hayal kırıklığı bilim insanlarının dikkatini çekmiş ve onları Türk Eğitim Sistemi'ndeki (TES) süregelen örgütsel değişim uygulamalarının temel öncüllerini incelemeye yöneltmiştir (örn. Çalışkan, 2011; Kondakçı, Beycioğlu, Sincar ve Uğurlu, 2017; Zayim, 2010).

Yukarıda ele alınan konuları ve bilim insanlarının eğitime ilişkin değişim çalışmalarına yönelik artan ilgisini göz önüne alarak, 2016 yılının ilk aylarında yürürlüğe girmiş olan Aday Öğretmenlik Uygulama Programı'nın (Resmi Gazete, 2016) bir değişim girişimi olarak incelenmesinin önemli olacağı düşünülmüştür. Bu büyük çaplı değişim girişimi, devlet okullarında göreve başlayacak olan öğretmenlere, sınıflarda öğretime başlamadan önce kapsamlı bir eğitim içeriği sunmaktadır. Bu program, öğretmenlerin mesleki çalışmalarına başlamadan önce rehberlik (oryantasyon) hizmeti almasını, öğretmenlik yapacağı yerlerdeki etnik, kültürel ve sosyal farklılıkları tanımasını ve daha deneyimli bir öğretmenin deneyim

ve yönlendirmelerinden faydalanmasını sağlamaktadır. Diğer taraftan ise, program ile 642 saatlik yoğun bir eğitim planlanmakta ve katılımcıların hem yazılı hem de sözlü sınavlardan geçerek kadrolu öğretmen olarak atanmaları beklenmektedir. Bu değişim girişimiyle birlikte, değişim çabalarındaki yüksek düzeydeki başarısızlık (Meaney ve Pung, 2008) ve öğretmenlerin eğitim alanındaki değişimlere ilişkin memnuniyetsizliği (Toprak, 2017) öğretmen adaylarının ilgili değişim girişimine karşı ne hissetiği sorusunu akla getirmektedir. Ayrıca, ne tür etkenler ve dinamikler öğretmen adaylarının bu değişime hazır olmalarına etki etmektedir sorusu da ön plana çıkmaktadır.

İlgili endişelere ilişkin olarak, örgütsel değişim alanyazınında, değişim sürecini anlamaya yönelik bilim insanlarının, uygulayıcıların ve politika yapıcıların kullanımına sunulmuş birçok teorik ve ampirik bulgu bulunmaktadır. Bu bağlamda, örgütsel değişim alanyazını, ilgili endişelere ve sorunlara ışık tutabilir. Örgütsel değişim alanyazınında, örgütleri çevreleyen dinamiklerin gerektirdiği koşullar gereğince, örgütlerin değişime maruz kalmasının kaçınılmaz bir hale geldiği belirtilmektedir (Burke, 2017). Dahası, örgütler çok yönlü bir değişim ile karşı karşıya iken (Choi ve Ruona, 2013), diğer taraftan gelişen teknoloji ile örgütsel değişimin birçok öğesi daha karmaşık hale gelmektedir. Dolayısıyla, örgütlerde değişime ilişkin yaklaşımlarda farklı yöntemler kullanılmaktadır çünkü örgütsel yapıların her bir öğesi değişimin farklı bir unsuru ile ilgili olabilmektedir (Armenakis ve Bedeian, 1999; Beer ve Nohria, 2000; Burke, 2017; Van de Ven ve Poole, 1995; Weick ve Quinn, 1999).

Burke (2017)'e göre, örgütsel değişim dört aşamadan oluşur; birey, takım, örgüt ve endüstri düzeyindedir. Farklı bir bakış açısına göre, değişimin gelişimi evrimsel ve devrimsel diye iki şekilde olmaktadır. Ayrıca, değişim sürecini anlamaya yönelik farklı bakış açılarından da söz edilmektedir. Dolayısıyla, değişimi açıklamada tek ve yaygın bir yöntem yoktur. Bu düşünceyi destekler nitelikte, Kezar (2001) örgütsel değişimi anlamada bir model veya bakış açısı seçmenin, değişimin hangi yanlarına odaklanacağımızı anlamada kolaylık sağlayacağını ifade etmiştir. Uygun değişim modelinin seçimi, çözülmek istenen problem ile yakından ilgilidir. Değişim alanyazınında, karşılaşılan problemlere ilişkin olarak, bir çok bilim insanı (Beer ve Nohria, 2000; Meaney ve Pung, 2008; Probst ve Raisch, 2005) değişim

girişimlerindeki yüksek oranlı başarısızlığı vurgulamaktadır. Bu kapsamda, uluslararası bir araştırmanın sonuçlarına göre (Meaney ve Pung, 2008) ilgili araştırmaya katılan çalışanların üçte ikisi çalıştıkları şirketlerin istenilen seviyede bir değişim gerçekleştiremediğinden söz etmektedir. Değişimlerdeki başarısızlığın nedenlerine ilişkin çeşitli açıklamalar yapılmıştır. Bunlardan bazıları şu şekilde ifade edilmektedir; örgütsel kültürün iyi ele alınamayışı (Burke, 2017), örgütün insan yönünden ziyade yapısal yanlarının dikkate alınması (Clegg ve Walsh, 2004), değişimin kötü yönetilmesi (Probst ve Raisch, 2005) ve değişimin politik, duygusal ve manevi yönüne yeterince ilgi gösterilmemesi (Hargreaves, 2005). Benzer biçimde, son dönemdeki eğitime ilişkin değişim girişimlerinde, katılımcı karar alma yönteminden uzaklaşılıp öğretmen isteklerinin göz ardı edilmesi eleştirilmektedir (Toprak, 2017).

Söz konusu nedenlerden, en fazla dikkat çeken neden ise değişimin insan yönünün göz ardı edilmesi olarak ifade edilmiştir çünkü Schneider, Brief ve Guzzo (1996, s. 7) "İnsanlar değişmez ise örgütsel değişim olmaz" şeklinde ifade etmiştir. Benzer biçimde, değişimi daha iyi anlamanın yolu en küçük (mikro veya bireysel) birimdeki dinamikleri anlamaktan geçer (Tsoukas ve Chia, 2002); çünkü değişime ilişkin en büyük detaylar çalışanların davranışlarında saklıdır (Orlikowski, 1996) ve dolayısıyla değişim zorunlu olarak, insanın sosyal etkileşiminin bulunduğu bağlamda meydana gelir (Ford ve Ford, 1995). Mikro veya bireysel seviyedeki değişime ilişkin olarak, alanyazında dikkat çekilen önemli bir diğer nokta ise değişimin insan yönünü anlamada etkili olan asıl noktanın insanların değişime karşı tutumları veya tepkileridir (Cunnigham vd., 2002); çünkü bireylerin tutumları önerilen değişime ilişkin algıları ile ilgilidir (Prochaska vd., 1994). Dolayısıyla çalışanların tutumları, değişim girişimlerinin nasıl şekil alacağına ilişkin belirleyici bir role sahiptir. İlgili alanyazında, değişime dair tutumlar değişime açık olma (Wanberg ve Banas, 2000), değişime karşı olma (Piderit, 2000), değişime karşı kötümserlik (Reichers, Wanous ve Austin, 1997) ve değişime hazır olma (Armenakis, Harris ve Mossholder, 1993) şeklinde ifade edilmiştir. Sözü geçen tutumlardan, başarılı bir değişim girişimi adına, değişime hazır olma tutumu özellikle vurgulanmaktadır (örn. Armenakis ve Harris, 2009; Self ve Schraeder, 2009; Stevens, 2013).

Alanyazın incelendiğinde, değişime direnç ile birlikte değişime hazır olma ile ilgili çalışmalar, değişime karşı tutum çalışmaları içerisinde en fazla çalışılan konular olarak geçmektedir (Bouckenooghe, 2010). Değişime hazır olma kavramının en bilineni ise Armenakis ve diğerleri (1993) tarafından şu şekilde ifade edilmiştir: "Hazır olma durumu, örgüt üyelerinin değişikliklere ne ölçüde ihtiyaç duyduğu ve örgütün çevredeki bu değişiklikleri başarıyla yapma kapasitesine ilişkin inançlarının, tutumlarının ve niyetlerinin yansımasıdır" (s. 681). Diğer bir tanım ise; "İlgili kişilerin bireysel olarak ve toplu olarak hazırlanma, motive edilme ve teknik olarak değişimi gerçekleştirebilme yetisinin ölçüsü olarak ifade edilmiştir (Holt ve Vardaman, 2013, s. 9).

Yapılan tanımlar, değişime hazır olmanın davranışsal bir süreçten ziyade bilişsel bir süreç ile ilgili olabileceğini ortaya koymaktadır. Dolayısıyla, bireylerin değişime hazır olmaları açıktan veya davranışsal olarak sergilenemeyebilir; çünkü bu süreç bilişsel ve içsel bir oluşum ile meydana gelmektedir. Bu çıkarımı destekleyici türden, Lewin (1947) tarafından ifade edilen değişim sürecindeki üç aşamanın (çözülme, değişim ve yeniden dondurma) ilk iki aşaması (çözülme ve değişim) değişime hazır olma ile ilişkilendirilmiştir (Bernerth, 2004).

Bu ifadeler göz önüne alındığında, değişime hazır olma algısı, değişim tamamen gerçekleşmeden meydana gelmektedir şeklinde bir çıkarıma olanak sağlamaktadır. Bu bağlamda, değişime hazır olmanın öncüllerinin ne olduğunu araştırmak, değişime hazır olmanın ve devamında eyleme dönüşümün ne şekilde gerçekleştiğini anlamada önemli bir role sahip olduğu söylenebilir. İlgili alanyazında, değişime hazır olma ile ilişkilendirilen bir çok yordayıcı bulunmaktadır. Armenakis ve Bedeian'ın (1999) birey, bağlam, içerik ve süreç şeklindeki dört temel faktörüne dayalı olarak, alanyazındaki yordayıcıların derlemesi yapılmıştır (bk. Çalışkan, 2011). Bu faktörlerden, birey boyutu daha çok değişimin insan tarafı ile ilgili iken diğer faktörler daha çok yapısal, işlevsel ve çevresel öğelerden oluşmaktadır. Bireysel faktörler konusunda, ilgili alanyazın incelendiğinde, öz yeterlik, bireysel değer, uyum yeteneği ve örgütsel bağlılık gibi kavramların değişime hazır olma ile ilişkilendirildiği gözlemlenmektedir.

Değişime hazır olma kavramının kavramsallaştırılması ile ilgili olarak, Armenakis, Harris ve Field (1999) başarılı bir değişim için üç-adım modelinden söz etmektedir.

Bu modelde, hazır olma (readiness) durumu değişime karşı tutum oluşturma sürecinde, ilk adım olarak gelir. Bu adımı takiben girişilen değişimin kabul edilmesi ve uygulanması ile benimseme (adoption) evresi gelir ve son olarak değişimin devamlı hale gelip kural haline gelmesi yoluyla kurumsallaşma (institutionalization) oluşur. Bu model, başarılı bir değişim başlangıcının bireyleri hazır hale getirme ile mümkün olacağını ifade etmektedir. Bir başka çalışmada ise, hazır olma tutumu yaratmanın, iletilen değişim mesajı ile ilgili olduğu ifade edilmiştir (Armenakis vd., 1993). Ayrıca, etkili bir değişim mesajında bulunması gereken unsurların: bireysel değer, yönetici desteği, farklılık, uygunluk ve öz yeterlik şeklinde olması gerektiği ifade edilmiştir (Armenakis vd., 1999).

Alanyazında belirtildiği üzere, bireylerin değişimi yorumlama biçimlerindeki farklılıklar değişim sürecini daha karmaşık hale getirmektedir (Van de Ven ve Poole, 1995) insanların değişken bilişsel yönelimlerine, var olan örgütsel değişim teorileri içerisinde pek söz edilmemektedir (Weber ve Manning, 2001). Bu anlamda, Kezar (2001) çeşitli değişim teorilerinden söz ettiği çalışmasında, Van de Ven ve Pool (1995)'un teorilerine ek olarak sosyal biliş teorisinden söz etmektedir. Sosyal biliş teorisi (Bandura, 1986) dikkate alındığında, değişimin insan yönü, insanların hazır olma durumları ve değişime karşı hazır olma durumunun olası yordayıcılarına ilişkin önemli bilgiler elde edilebilir.

Sosyal biliş teorisi, değişimi deneyimleyen her bireyin, bilişsel süreçlerinin farklılaşacağını ifade ederek, her bireyin değişimi farklı algılayacağını öne sürmektedir. Değişimin, öğrenmenin ve gelişimin nasıl olduğunu anlamak için, insan bilişi ve değişim arasındaki ilişki incelenmiştir. Bunun sonucunda, bilgi yapıları (knowledge structures), bilişsel şema (cognitive schema) (De Vos, 2002), anlamlandırma (sense making) (Weick, 1995), bilişsel neden haritası (cognitive cause-mapping) (Weber ve Manning, 2001) ve bilişsel uyumsuzluk (cognitive dissonance) (Festinger, 1957; Harmon-Jones ve Mills, 1999) gibi kavramlara değinilmiştir.

Tüm bu süreçlere ilişkin olarak, özellikle vurgulanan şey, karşılaşılan değişimlere karşı bireylerin farklılaşan anlamlandırma mekanizmaları veya bilişsel şemaları ile değişken gerçekliklere veya algılara sahip olabildikleridir. Bu bağlamda, sosyal biliş

modeli insanların değişimi nasıl anlamlandırdığını anlamada yardımcı bir rol üstlenebilir (Harris, 1996).

1.1.Problem Cümlesi

Yukarıda söz edilen konuları esas alarak, insanların değişime hazır oluşları veya direnç göstermelerini anlamak için tutum değişiminin araştırılması önemli bir konu olarak öne çıkmaktadır. Değişime hazır olma durumu, farklı yordayıcılar ile çalışılmış olsa da, Armenakis ve arkadaşlarının (1993; 1999) ikna edici değişim mesajı modeli çerçevesinde deneysel bir ortam yaratarak incelenebilir.

İlgili değişim mesajı öğelerine dayalı olarak, Holt, Armenakis, Feild ve Harris (2007) dört faktörlü (yönetim desteği, değişim yeterliği, uygunluk ve bireysel yarar) bir *Örgütsel Değişime Hazır Olma* (ÖDHO) ölçeği önermişlerdir. Alanyazından görüleceği üzere, geliştirilen ölçeğin faktörleri ve başarılı bir değişimde bulunması gereken beş değişim mesajı öğesi (bireysel fayda, yönetici desteği, farklılık, uygunluk ve öz yeterlik) (Armenakis vd., 1993; 1999) oldukça benzerdir. Bu bağlamda, etkili bir değişim mesajının sunulmasının, değişime hazır olmanın yaratılması için oldukça önemli olduğu çıkarımı yapılabilir.

Öğretmen adayları henüz Aday Öğretmenlik Uygulama Programı'na katılmadılar; fakat bu programa en yakın zamanda katılacaklar ve ilgili programa karşı farklı seviyelerde hazır olma tutumu geliştirecekler. Bu açıdan, öğretmen adaylarının programa yönelik tutumları, ÖDHO ölçeği (Holt vd., 2007) ile ölçülerek ve Armenakis ve diğerlerinin (1993;1999) etkili değişim mesajı bakış açısına dayalı olarak deneysel bir yaklaşım ile, öğretmen adaylarının var olan tutumları değişime zorlanabilir. Bu sayede, öğretmen adaylarının değişime hazır olma durumunun deneysel olarak nasıl geliştirildiği gözlemlenecek ve sonrasındaki süreçte meydana gelen değişimin benimsenmesi (adoption) daha kolay sürdürülebilecektir.

Tutum değişiminin oluşumuna ilişkin olarak, sosyal biliş teorisi, önemli bir kavram olan bilişsel uyumsuzluktan bahseder. Bilişsel uyumsuzluk, insan zihnindeki bilişsel öğeler arasındaki karşıt koşullardan kaynaklanan uyumsuzluk durumu olarak ifade edilir (Festinger, 1957). Diğer bir ifadeyle, yeni karşılaşılan bir durum ya da koşul, bireylerin mevcut inançlarını ya da pozisyonlarını zorlar. Böylelikle, bu zorlayıcı durum insanların farklı inançlarını değiştirerek yeni koşulları kabul etmeye

zorlayabilir. Yeni ve eski durum arasındaki tutarsızlık hali insanlarda rahatsızlık duygusu (dissonance) yaratır ve tutarlı (consonance) bir duruma ulaşma adına bireyde var olan üç dinamikten (algı, eylem veya inanç) birini değiştirmeye zorlar. Daha önce de belirtildiği gibi, değişime hazır olma durumu, insanların değişime yönelik içsel ve bilişsel yönelimleriyle tanımlanmaktadır (Armenakis vd., 1993; Clarke vd., 1996). Diğer bir ifadeyle, değişime hazır olma durumu önerilen değişime karşı destek veya direnç şeklinde oluşacak olan davranışların habercisidir. Benzer şekilde, hazır olma durumunun değişim sürecindeki ilk adım olması dikkate alındığında (Armenakis vd., 1999; Bernerth, 2004; Choi ve Ruona, 2011), insanlar yeni bir durum ya da değişim ile karşılaştıklarında bilişsel süreçleri, ya uyuşmazlık ya da uyuşma halinde bir tepki geliştirecektir. Bu açıdan da, bilişsel uyumsuzluk ve değişime hazır olma durumu belli açılardan ilişkili olabilir.

İnsanların bilişsel uyumsuzluk seviyesi, değişim sürecinin ilk adımları ile ilişkilendirilebilir; çünkü Cooper (2007) insanların zihnindeki iki durum (yeni ve eski düzen) arasındaki tutarsızlık seviyesinin, insanların uyumsuzluk düzeyini (rahatsızlığı) etkiliyor olduğuna dikkat çekmektedir. Benzer şekilde, sunulan her yeni bir değişiklik, bireyler için çeşitli derecelerde olumlu ya da olumsuz olacaktır. Bu nedenle, bireyler açısından değişim girişimlerinin çeşitli seviyelerde olumlu veya olumsuz olması durumu ihtimal dahilindedir. Bu nedenle, değişim girişimlerinin ilk başlardaki sonucu, hazır olma veya olmama şeklinde gelişebilir. Özetlemek gerekirse, insanların gerginliklerini azaltıp (uyumsuzluk) değişime hazır olma durumlarının nasıl güçlendirilebileceğini daha iyi anlama adına, insanların bilişsel uyumsuzluk seviyeleri ve değişime hazır olma seviyelerinin bazı ortak noktalara sahip olduğu söylenebilir.

Bunların yanı sıra, olumsuz durumlar karşısında kendini toparlama gücü (Davidson, Payne ve Connor, 2005) ve kişi-çevre bağlamında ortaya çıkan gelişimsel bir süreç (Egeland, Pianta ve O'Brien, 1993) olarak ifade edilen bir değişken olan, psikolojik sağlamlık veya yılmazlık da hem bilişsel uyumsuzluk hem de değişime hazır olma ile ilişkilendirilebilir. Weick (1995), olaylar hakkında yorum üretme evresi olarak ifade edilen, anlamlandırma (sense making) sürecinin yılmazlık yoluyla kolaylaştırılabileceğini belirtmektedir. Diğer bir ifadeyle, anlamlandırma süreci bir değişim ile başlar çünkü örgütteki eski ve yeni durumlar kişiyi, ya direnç ya da hazır

olma şeklinde belirli bir tutum almaya zorlar. Bu geçiş evresinde, yılmazlık kişinin sağlıklı bir şekilde yeni duruma geçiş yapması açısından önemli gözükmektedir.

Bu zorlu ve çetin şartlar altında, bireylerin sahip olmuş olduğu yılmazlık özelliği onları güçlü kılıp daha sakin bir biçimde hareket etmelerini sağlar. Diğer bir ifadeyle, adaptasyon mekanizması olarak ifade edilen yılmazlık, değişim sürecindeki zorlu şartlara (örn. yeni şartlara karşı hassas olma, stres yaşama ve direnç sergileme) karşı bireyleri daha güçlü kılar. Bu anlamda, bilişsel uyumsuzluğun olumsuz bir durum olduğu dikkate alındığında, bireylerin yılmazlığı bilişsel uyumsuzluğun oluşumu ve derecesi açısından önemli bir role sahip olabilir. Ayrıca, bilişsel uyumsuzluk teorisine göre, bilişsel uyumsuzluk ile oluşmuş olan huzursuzluğu giderme adına, bireyler de tutum değişimine yönelirler. Aynı şekilde, yılmazlık da olumsuz şartlar altında kolaylaştırıcı bir rol üstlenmektedir. Tüm bunları göz önüne aldığımızda, yılmazlık ve bilişsel uyumsuzluğun, değişime hazır olma oluşumu sürecinde nasıl bir etkileşimde olduğu sorusu, değişime hazır olma olgusunu daha iyi anlama adına, önemli bir konu haline gelmektedir.

1.2. Çalışmanın Amacı ve Araştırma Soruları

Bu çalışmanın iki temel amacı vardır; 1) üç farklı tutum grubunun (olumlu tutum grubu, olumsuz tutum grubu ve kontrol grubu) ÖDHO boyutlarındaki tutum değişikliğinin düzeyi noktasında nasıl farklılaştığını incelemek; 2) ÖDHO boyutlarındaki tutum değişikliği düzeyinin bilişsel uyumsuzluk ve yılmazlık değişkenleri ile nasıl bir ilişkiye sahip olduğu sorusuna yanıt bulmaktır. Bu kapsamda, 3 farklı araştırma sorusu hazırlanmıştır.

1) Üç farklı tutum grubu (olumlu tutum grubu, olumsuz tutum grubu ve kontrol grubu) ÖDHO boyutlarındaki tutum değişikliğinin düzeyi noktasında nasıl farklılaşmaktadır?

2) Olumlu grup katılımcıları arasında, ÖDHO boyutlarındaki tutum değişikliği düzeyinin bilişsel uyumsuzluk ve yılmazlık değişkenleri ile nasıl bir ilişkisi vardır?

3) Olumsuz grup katılımcıları arasında, ÖDHO boyutlarındaki tutum değişikliği düzeyinin bilişsel uyumsuzluk ve yılmazlık değişkenleri ile nasıl bir ilişkisi vardır?

1.3. Çalışmanın Önemi

Eğitim alanındaki değişim girişimleri ve olası sonuçlarını anlamak, Milli Eğitim Bakanlığı gibi büyük kurumlarda gerçekleştirilen geniş çaplı değişimi sağlamak açısından önem arz etmektedir. Dolayısıyla, bu çalışmadan elde edilecek sonuçların eğitimsel değişimlere ilişkin kuram, araştırma ve uygulama boyutlarına önemli katkı sunması beklenmektedir.

Bu çalışma, Armenakis ve diğerleri (1993; 1999) tarafından vurgulanan etkili değişim mesajının, değişime hazır olma durumunun yaratılmasındaki rolünü esas alarak, farklı içeriklere sahip değişim mesajlarını vermek suretiyle katılımcıların deneysel olarak nasıl etkilendiğini gözlemleme imkanı sunmuştur. Ayrıca, alanyazında da belirtildiği üzere değişime hazır olma farklı değişkenler ile ilişkilendirilmektedir. Bu çalışma kapsamında ise sosyal psikolojinin önemli bir konusu olan bilişsel uyumsuzluk ile ilişkisi üzerine bir çalışma yapılmıştır. Bilindiği üzere, bilişsel uyumsuzluk çok farklı alanlarda tutum değiştirme konusunu açıklama adına çalışılan bir konudur. Bu araştırmanın, eğitim alanındaki değişimlere karşı geliştirilen tutum ve bilişsel uyumsuzluk arasındaki ilişkinin araştırılmasında önemli bilgiler sağlaması beklenmektedir. Bilişsel uyumsuzluk değişkeni farklı alanlarda kullanılmış olmasına rağmen, bu çalışma ile Türkiye bağlamında ilk defa eğitimsel bir değişim kapsamında ele alınmıştır ve dolayısıyla değişime hazır olma kavramının daha iyi anlaşımasına katkı sağlayacaktır. Benzer biçimde yılmazlık değişkenin, hem bilişsel uyumsuzluk hem de ÖDHO'nın boyutları arasında nasıl bir ilişkiye sahip olduğuna dair bulguların alana katkı sağlaması beklenmektedir. Çalışma kapsamında, ilgili değişkenlerden Bilişsel Uyumsuzluk ve ÖDHO ölçeği Türkçeye çevrilerek gerekli güvenirlik ve geçerlik çalışmaları yapılmıştır.

2. YÖNTEM

2.1. Araştırma Deseni

Bu çalışmanın ilk bölümünde, değişkenler arası neden sonuç ilişkisini incelemek için (Fraenkel, Wallen ve Hyun, 2012) ön test-son test izleme (kontrol) gruplu yarı deneysel bir desen tercih edilmiştir. Deney kapsamında, Aday Öğretmenlik Uygulaması Programı hakkında katılımcılara yöneltilen bilgilere (olumlu

bilgilendirme, olumsuz bilgilendirme ve izleme grubu) bağlı olarak, katılımcıların ÖDHO seviyelerinin (kişisel yarar, değişim yeterliği, yönetim desteği ve uygunluk) nasıl değişim gösterdiği incelenmiştir. Çalışma kapsamında, olumlu tutum grubu, olumsuz tutum grubu ve kontrol grubu olmak üzere üç farklı grup oluşturulmuştur. Grupların oluşturulması, katılımcıların ÖDHO değişkenine ait ön-test sonuçlarından almış oldukları puanların daha önce belirlenmiş olan eşik puanın (X = 3.16) altında veya üstünde olmasına göre belirlenmiştir. Olumlu grup katılımcıları, ÖDHO puanından 3.16 üzeri almış olanlar iken olumsuz grup katılımcıları ise ÖDHO puanından 3.16 altında almış olanlar olarak belirlenmiştir. İzleme grubu homojen bir dağılım sağlamak kaydıyla, 3.16 ortalama puanın hem üstünde hem de altında olan katılımcıların rastgele seçilmesiyle oluşturulmuştur. Deneysel çalışmayla elde edilen ÖDHO puanlarından, her bir ÖDHO boyutunun son-test ve ön-test puanları arasında oluşan farkın hesaplanmasıyla ÖDHO düzeyi şeklinde bir değişken olarak tanımlanmıştır. İlgili ÖDHO düzeyi değişkeninin dört boyutunun gruplar arası nasıl farklılaştığını incelemek adına, Tek-Yönlü Çok Değişkenli Varyans Analizi (MANOVA) yapılmıştır. Çalışmanın diğer bölümünde ise, bilişsel uyumsuzluk ve yılmazlık değişkenlerinin ÖDHO düzeyi değişkeninin dört boyutunu nasıl yordadığını incelemek için ayrı ayrı olmak üzere hem olumlu hem de olumsuz tutum grubu katılımcılarının puanlarına göre iki farklı PATH analizi yapılmıştır.

2.2. Örneklem ve Örneklem Seçimi

Çalışma kapsamında kullanılan veriler, 2015-2016 öğretim yılı bahar döneminde toplandı. Veri toplama işlemine başlamadan önce, ilgili üniversiteden veri toplama izni almak için, Etik Kurul (Ek A) izni alınmıştır. Araştırmanın katılımcıları, Eğitim Fakültesi bünyesindeki çeşitli bölümlerde (Yabancı Dil Eğitimi, Matematik ve Fen Bilgisi Eğitimi, Bilgisayar Eğitimi ve Öğretim Teknolojisi, Okul Öncesi Eğitimi) lisans eğitimi alan 3., 4. ve 5. sınıf öğrencileridir. Araştırmanın evrenini, 2015-2016 öğretim yılında 3., 4. ve 5. sınıfa devam etmekte olan 754 öğrenci oluşturmaktadır. Bu çalışmada yarı deneysel bir araştırma deseni tercih edildiğinden, örneklemin rastgele seçilmesi mümkün olmamıştır. Bu kapsamda, veriler Eğitim Fakültesi'ndeki eğitim bilimleri bölümü tarafından verilen ve tüm bölümlerden öğrencilerin homojen olarak dağıldığı 10 farklı dersteki (sınıf) öğrencilerden toplanmıştır. Tüm verilerin toplanması araştırmacı tarafından yapıldı ve araştırmanın her katılımcısı bu

araştırmaya katıldığı için, teşvik olarak bir adet hediye kirtasiye kartı aldı. Araştırmaya, ön-test aşamasında toplam 201 kişi katıldı ve dört hafta sonra yapılan son-test kısmına ise ön-test katılımcılarının bir kısmı katılmayarak toplam 163 kişi katılmıştır. Katılımcıların gruplara göre dağılımı ise, olumlu tutum grubu katılımcıları 52 kişi, olumsuz tutum grubu katılımcıları 52 kişi ve izleme grubu katılımcıları ise 59 kişi olarak gerçekleşmiştir.

2.3. Veri Toplama Araçları

Çalışma kapsamında, veri toplama aracı olarak şu ölçekler kullanılmıştır; Örgütsel Değişime Hazır Olma Ölçeği (Holt vd., 2007b), Ego-Sağlamlık Ölçeği (Block ve Kremen, 1996; Karaırmak, 2007) ve Bilişsel Uyumsuzluk Ölçeği (Elliot ve Devine, 1994). Çalışmada kullanılan araçların güvenilirliğini ve geçerliliğini değerlendirmek için bir pilot çalışma yapılmıştır.

2.3.1. Ölçekler

Örgütsel Değişime Hazırlık Ölçeği (Ek B), bireylerin değişim faaliyetlerine hazır olup olmadığını ölçmek için Holt ve arkadaşları (2007b) tarafından geliştirilmiştir. Ölçek, 4 faktörlü 25 maddeden oluşmaktadır; *Değişim Yeterliği, Uygunluk, Yönetim Desteği ve Kişisel Yarar.* Ölçeğin geliştiriciler tarafından bildirilen iç tutarlık değerleri .65 ve .94 arasında değişmektedir. Ölçeğin yanıt biçimi, "kesinlikle katılmıyorum" (1) ile "kesinlikle katılıyorum" (7) arasında değişen Likert tipi şeklinde düzenlenmiştir. Ancak bu araştırma kapsamında, 5'li Likert tipi ölçekleme şeklinde düzenlenmiştir. Ölçeğin Türkçe'ye uyarlanması, araştırmacı tarafından bu çalışma ile yapılmıştır. Ölçeğin 4 faktörlü yapısı bu çalışmada da doğrulanmıştır. $\chi 2(2) = 3.58$, $p = .00$, $CFI = .96$, $TLI = .93$, $RMSEA = .09$, $SRMR = .04$. Değişim Yeterliği iç tutarlık katsayısı .75, Uygunluk iç tutarlık katsayısı .93, Yönetim Desteği iç tutarlık katsayısı .75 ve Kişisel Yarar iç tutarlık katsayısı .78 olarak bulunmuştur.

Ego Sağlamlık Ölçeği (Block ve Kremen, 1996) (Ek D), sürekli değişen yaşam olaylarına uyum sağlamak için bireylerin kişisel kapasitelerini ölçmek amacıyla geliştirilmiştir. Ölçeğin Türkçe uyarlaması Karaırmak (2007) tarafından gerçekleştirilmiş olup ve ölçek için üç faktörlü bir yapı önerilmiştir; İyileşmeye İlişkin Kişisel Güçlü Yönler; Kendini Olumlu Değerlendirme; Yeni Deneyime

Açıklık. Bu çalışma kapsamında, tek faktörlü yapı denenmiştir ve doğrulanmıştır $\chi2(2) = 2.99$, $p = .05$, *CFI* $= .99$, *TLI* $= .97$, *RMSEA* $= .08$, *SRMR* $= .02$. Tek faktörlü yapının iç tutarlık kat sayısı .83 olarak bulunmuştur.

Bilişsel Uyumsuzluk Ölçeği (Elliot ve Devine, 1994) tarafından geliştirilmiştir. Ölçek tek faktörlü olarak önerilmiştir. Ölçeği geliştiren yazarlar, ölçeğin uygulanması aşamasında bazı diğer duygu belirten faktörlerin de (Olumlu, Negatif ve Utanma) ölçekle beraber uygulanmasını önermiştir. Bu durum, özellikle deneysel istem (experimental demand) gibi iç geçerlik problemini önleme adına önerilmiştir (Elliot ve Devine, 1994; Orne, 1962). Faktör analizi sonuçlarına göre, ölçek doğrulanmıştır $\chi2(2) = 1.65$, $p = .02$, *CFI* $= .97$, *TLI* $= .96$, *RMSEA* $= .05$, *SRMR* $= .05$. Tek faktörlü yapının iç tutarlık kat sayısı .87 olarak bulunmuştur.

2.4. Deneysel Uygulamanın Aşamaları

Bu çalışmanın verisi, araştırmacı tarafından oluşturulan yarı-deneysel sınıf ortamından toplanmıştır. Araştırma, ön-test ve son-test olmak üzere iki aşamadan oluşmaktadır. Araştırmanın ön-test bölümü için, daha önce seçilmiş olan sınıflar tek tek ziyaret edilerek, katılımcılara, kendilerini yakından ilgilendiren bir konu (Aday Öğretmenlik Uygulama Programı) ile ilgili araştırma yapıldığından söz edildi. Yapılacak araştırmanın farklı aşamalarının olacağı belirtilerek, adayların kendilerine dağıtılan ölçek formları üzerine herhangi bir takma ad (nick name) yazmalarını ve bir sonraki aşama için bu takma adları hatırlamaları istendi. Bu şekilde, kişilerin gerçek isimleri gizlenmiş oldu. Daha sonra, dağıtılan ölçek formları (Yılmazlık ve ÖDHO ölçekleri) katılımcılar tarafından dolduruldu. Son-test aşamasına geçmeden önce, katılımcıların, ÖDHO ölçeğindeki puanlamalarını dikkate alarak, 3 farklı tutum grubu (olumlu, olumsuz ve kontrol) oluşturuldu. Grupların oluşturulmasında, ÖDHO ölçeğinden elde edilen genel ortalama puan (X = 3.16) dikkate alındı. Ortalamanın altında puana sahip olan adaylar olumsuz tutum grubu, ortalamanın üstünde olan adaylar ise olumlu tutum grubu olarak belirlendi. Kontrol grubu ise, ortlama puanın altında veya üstünde olan adaylar seçilerek eşit ve rastgele bir biçimde oluşturuldu.

Son-test aşaması için 4 hafta sonra aynı sınıflar tekrar ziyaret edildi. Sınıflarda, adayların daha önce yazmış oldukları takma adlar yoluyla, tutum gruplarının sınıfın birbirinden uzak üç farklı köşesine oturmaları sağlandı. Daha sonra, daha önceden

hazır hale getirilmiş ve üzerinde takma adları yazılı olan uygulama ve ölçek formları, ilgili kişilere dağıtıldı. Adaylardan, yapılmakta olan işlem boyunca sessiz olmaları istendi. Bu şekilde, adaylar birbirlerinden etkilenmeden kendilerine verilen uygulama formlarını doldurdular. Son olarak, adaylara çalışmaya katıldıkları için hediye kırtasiye çeki dağıtıldı ve yapılan araştırmaya dair bilgilendirme yapıldı.

2.5. Verilerin Analizi

Bu çalışma kapsamındaki araştırma sorularını cevaplamak için bir adet Tek-Yönlü Çok Değişkenli Varyans Analizi (MANOVA) ve iki farklı PATH (YOL) analizi yapılmıştır. Tüm analizler öncesinde, gerekli varsayım testleri yapılmış ve söz konusu varsayımların sağlandığı sonucuna varılmıştır.

2.6. Ek Analizler

Araştırma sorularına ilişkin analizlere geçmden önce, bilişsel uyumsuzluk duygusunun yaratılmasına ilişkin alanyazında daha önce belirtilmiş kaygıları gidermek (Elliot ve Devine, 1994; Sastre, 2014) ve çalışmanın deneysel doğası nedeniyle oluşabilecek olumsuzlukları gidermek (Sansone, Morf ve Panter, 2003) amacıyla bazı ek analizler yapılmıştır.

Alanyazında belirtildiği üzere, bireyler kendilerine yöneltilen olumlu ve olumsuz bilgileri, sahip oldukları tutum türü nedeniyle aynı şekilde algılayamazlar. Diğer bir ifadeyle, olumsuz ifadenin bireyler üzerindeki ikna gücü olumlu ifadenin ikna gücünden daha fazladır (Fiske, 1980; Maheswaran ve Meyers-Levy, 1990; Meyerowitz ve Chaiken, 1987). Bu bilgileri dikkate alarak ve daha önceki bir bilişsel uyumsuzluk çalışmasında yapılmış bir yöntemi esas alarak, katılımcıların yazmış oldukları makalelerin içerikleri, araştırmacı tarafından kendilerinden istenen (olumlu yazma veya olumsuz yazma) ile ne kadar uyumlu olduğu incelenmiştir. İnceleme sonucunda, olumsuz grup katılımcılarının kendilerinden aday öğretmenlik programı hakkında olumlu şeyler yazmaları istenmesine rağmen çoğunlukla olumsuz yönde yazılar yazdığı gözlemlenmiştir. Olumlu grup katılımcılarının ise, kendilerinden aday öğretmenlik programı hakkında olumsuz şeyler yazmaları istenmiş ve bu gruptakilerin çoğunluğu olumsuz yönde yazılar yazmıştır. Bu durum, alanyazında, bazı aşırı ve önemli tutumların daha az kutuplaşmış ve önemsiz tutumlara göre

değişime daha dirençli olmasının olası sonucu olduğu ifade edilmiştir (Krosnick, 1988; Osgood ve Tannenbaum, 1955; Rhine ve Severance, 1970).

3. BULGULAR

İlk araştırma sorusuna ilişkin olarak yapılan tek yönlü MANOVA sonuçlarına göre, bağımsız değişkenlerin (gruplar) bağımlı değişkenlerin toplamı (kombinasyonu) (Örgütsel Değişime Hazır Olma (ÖDHO)'nın düzeyi) üzerine temel etkisinin anlamlı olduğu bulunmuştur (Wilks' Λ = .71, F (8,314) = 7.41, p = .00, η^2 = .16). Bir sonraki aşamada, grupların her bir değişken üzerindeki temel etkisini incelemek için tek yönlü varyans analizi yapılmıştır. Analiz sonuçlarına göre, araştırmadaki grupların (olumlu tutum grubu, olumsuz tutum grubu ve control grubu) kişisel yarar (F (2,160) = 11.24, p < .013, η^2 = .12), değişim yeterliği (F (2,160) = 9.18, p < .013, η^2 = .10), yönetim desteği (F (2,160) = 7.20, p < .013, η^2 = .08) ve uygunluk (F (2,160) = 22.02, p < .013, η^2 = .22) değişkenleri üzerinde anlamlı bir etkisinin olduğu bulunmuştur.

Gruplar arası ikili karşılaştırmalar incelendiğinde ise, olumlu grupta bulunan katılımcıların kontrol grubunda bulunan katılımcılara kıyasla kişisel yarar ve değişim yeterliği boyutlarında istatiksel olarak daha yüksek bir değişim gösterdikleri belirlenmiştir. Olumsuz grupta bulunan katılımcılar ise her iki boyutta da kontrol grubundan ve olumlu tutum grubundan istatistiksel olarak farklılaşmamaktadır. Diğer taraftan, olumsuz grupta bulunan katılımcıların kontrol grubunda bulunan katılımcılara kıyasla yönetim desteği boyutunda istatiksel olarak daha yüksek bir değişim gösterdiği bulunmuştur. Olumlu tutum grubunda bulunan katılımcıların ise yönetim desteği boyutunda hem kontrol grubundan hem de olumsuz tutum grubundan istatiksel olarak farklılık göstermediği belirlenmiştir. Son olarak, hem olumlu tutum grubunun hem de olumsuz tutum grubunun, uygunluk boyutunda kontrol grubundaki katılımcılarından istatiksel olarak daha yüksek bir değişim gösterdikleri gözlemlenmiştir.

İkinci araştırma sorusunda, olumlu grup katılımcılarının ÖDHO boyutlarındaki tutum değişikliği düzeyinin bilişsel uyumsuzluk ve yılmazlık değişkenleri ile nasıl bir ilişkiye sahip olduğu sorusuna yanıt bulmak amacıyla, PATH analizi yapılmıştır. PATH analizi sonucunda, ilgili değişkenler arasında önerilen ilişki modelinin uyum

iyiliği indekslerinin kabul edilebilir olduğu gözlemlenmiştir. İlgili analizde, doğrudan ilişkiler incelendiğinde, bilişsel uyumsuzluk değişkeni ile değişim yeterliği ve uygunluk değişkenleri arasında anlamlı ve pozitif bir ilişkinin olduğu gözlemlenmiştir. Diğer taraftan, bilişsel uyumsuzluk ile kişisel yarar ve yönetim desteği arasında anlamlı bir ilişki bulunamamıştır. Benzer şekilde, yılmazlık değişkeni ile bilişsel uyumsuzluk değişkeni arasında anlamlı bir ilişki bulunamamıştır. Son olarak, yılmazlık değişkeni ile ÖDHO boyutları arasındaki dolaylı ilişki de anlamlı bir sonuç vermemiştir.

Üçüncü araştırma sorusunda, ikinci araştırma sorusunda olduğu gibi, olumsuz grup katılımcılarının ÖDHO boyutlarındaki tutum değişikliği düzeyinin bilişsel uyumsuzluk ve yılmazlık değişkenleri ile nasıl bir ilişkiye sahip olduğu sorusuna yanıt bulmak amacıyla, PATH analizi yapılmıştır. PATH analizi sonucunda, ilgili değişkenler arasında önerilen ilişki modelinin uyum iyiliği indekslerinin kabul edilebilir olduğu gözlemlenmiştir. İlgili analizde, doğrudan ilişkiler incelendiğinde, bilişsel uyumsuzluk değişkeni ile değişim yeterliği ve uygunluk değişkenleri arasında anlamlı ve negatif bir ilişkinin olduğu gözlemlenmiştir. Diğer taraftan, bilişsel uyumsuzluk ile kişisel yarar ve yönetim desteği arasında anlamlı bir ilişki bulunamamıştır. Aynı şekilde, yılmazlık değişkeni ile bilişsel uyumsuzluk değişkeni arasında anlamlı bir ilişki bulunamamıştır. Son olarak, yılmazlık değişkeni ile ÖDHO boyutları arasındaki dolaylı ilişki de anlamlı bir sonuç vermemiştir.

4. TARTIŞMA

İlk araştırma sorusuna ilişkin sonuçlar değerlendirildiğinde, ÖDHO'nın kişisel yarar boyutu açısından, olumlu grupta bulunan katılımcıların olumsuz gruptakiler göre daha fazla değişim gösterdiği görülmüştür ve dolayısıyla kontrol grubundan anlamlı bir şekilde farklılaşmıştır. Olumsuz gruptaki daha az değişimin nedeni, bireylere aday öğretmenlik programına dair verilmiş olan olumlu bilgilerin ve yazılan makalenin kişisel yarar boyutuna yönelik tutumu değiştirmede yeterince etkili olamadığını göstermektedir çünkü hem öğretmenler hem de öğretmen adayları eğitim sisteminde girişilen değişimlerin önemine inanmakta ama değişim sürecindeki daha az katılımcılık, kötü planlama, yetersiz alt yapı gibi konularda endişelerini belirtmektedirler (Toprak, 2017). Kısacası, öğretmen adayları, Türk Eğitim Sisteminde gözlemlemiş oldukları değişim deneyimlerini dikkate alarak, bireysel

yarar noktasında yeterince ikna olmuş gözükmüyor. Benzer şekilde, değişim yeterliği boyutunda da, olumsuz grupta bulunan katılımcılar olumlu gruptaki katılımcılara göre daha az değişim yaşamıştır ve kontrol grubundan istatistiksel olarak farklılaşmamıştır. Değişim yeterliği boyutu, bireylerin önerilen değişimi yapma yeterliği olarak ifade edilmektedir (Holt vd., 2007). Buradan hareketle, olumsuz gruptakilerin zaten zorlu olduğu gözüken bir programa karşı tutumlarının iyileşmesi zor olan bir durumdur. Ancak, olumlu grupta bulunanlar olumsuz bilgileri okuyup ve ardı sıra programa ilişkin olumsuz şeyler yazmaları, tutumlarının kötüleşmesi anlamında daha kolay olmuştur. Diğer bir boyut olan yönetim desteğinde ise olumsuz grup katılımcıları kontrol grubundakilerden daha fazla değişim göstererek anlamlı bir şekilde farklılaşmıştır. Ancak, olumlu gupta bulunan katılımcılar diğer gruplardan anlamlı bir şekilde farklılaşmak için yeterince değişim göstermemiştir. Bu durumun nedeni ise aday öğretmenlik programının özelliğinden kaynaklanmaktadır. Program özellikle yönetim desteğine ilişkin olumsuz bir durumdan söz etmemektedir. Dolayısıyla olumlu gruptakilerin bir önceki iki boyutta olduğu gibi tutumlarını önemli derecede kötüleştirmelerini beklemek olası değildir. Son olarak, uygunluk boyutunda ise hem olumlu grup hem de olumsuz grup katılımcıları kontrol grubu katılımcılarından anlamlı bir şekilde farklılaşmıştır. Uygunluk boyutu, daha önceki değişim yeterliği ve kişisel yarar boyutları gibi bireysel bir yöne sahip olmadığından, daha çok örgütsel bir uygunluğu ifade ettiğinden her iki tutum grubu da bu boyut açısından farklılık göstermeyerek benzer derecede bir değişim göstermiştir.

İkinci araştırma sorusunda oluşturulan modelin sonuçları, olumlu tutum grubunda bulunan katılımcıların bilişsel uyumsuzluğu ile ÖDHO'nun değişim yeterliği ve uygunluk boyutları arasında olumlu ve anlamlı bir ilişki olduğu belirlenmesine ragmen ÖDHO alt boyutları ile arasında herhangi anlamlı bir ilişki olmadığı belirlenmiştir. Bilişsel uyumsuzluk teorisinin varsayımlarına uygun olarak, rahatsızlık hissi arttıkça daha fazla değişim yaşandığı gözlemlenmiştir. Özellikle değişim yeterliğine ilişkin bulgu Bandura (1977)'nın olumsuz durumların öz yeterliği olumsuz etkilediği savını desteklemektedir çünkü artan rahatsızlık hissi olumlu grupta değişim yeterliğinde değişim yaşanmasını (yeterliğin kötüleşmesi) tetiklemiştir. Diğer taraftan, uygunluk boyutunda anlamlı ilişki var iken diğer boyutlarda anlamlı bir ilişkinin bulunmaması ise önerilen aday öğretmenlik

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programının içeriği ile ilişkilendirilmiştir. İlgili programın doğası gereği zorlu oluşu değişim yeterliği değişkeninde etkisini göstermiş ve kurumsal olarak uygunluğu veya uygun olmayışı ise aynı şekilde katılımcıların ilgisini çekerek, onların tutum değiştirmelerine neden olmuştur. Ancak, yönetim desteği ve kişisel yarar ise önerilen değişimdeki odak nokta olan konular olmayabilir. Ayrıca, bu araştırma sorusunda, yılmazlık ve bilişsel uyumsuzluk arasında doğrudan bir ilişki bulunamamıştır. Stone ve Cooper (2001) bilişsel uyumsuzluk ve çeşitli kişilik özellikleri üzerine olan araştırmalardaki ikili ilişki tutarsızlığını açıklarken öz-standart (self-standard) modelini önermiş ve kişiliğe ait durumların ve oluşabilecek olası bilişsel uyumsuzluğun bulunduğu bağlama göre değişkenlik göstereceğini ifade etmiş ve dolayısıyla kişiliğe dair bu tür ilişkisel çalışmaların çeşitli karıştırıcı değişkenlere açık olduğu yorumunda bulunmuştur. Benzer şekilde, yılmazlık ve ÖDHO'nın boyutları arasında gözlemlenememiş olan dolaylı ilişki de öz-standart modeline bağlı olarak gerçekleşmiş olabilir.

Üçüncü araştırma sorusunda, olumsuz tutum grubunda bulunan katılımcılar arasında bilişsel uyumsuzluk ve ÖDHO'nın değişim yeterliği ve uygunluk boyutları arasında anlamlı ama negatif yönlü bir ilişki saptanmıştır. Bu sonuç, bilişsel uyumsuzluk teorisi varsayımlarına ters bir durum ama yine bilişsel uyumsuzluk ile ilgili yapılan araştırmalarda aşırı ve önemli tutum grubunda bulunan bireylerin değişime daha dirençli olacağı ve dolayısıyla yaratılan bilişsel uyumsuzluğun öngörülen yönde etkide bulunmayacağı belirtilmiştir (Krosnick, 1988; Osgood ve Tannenbaum, 1955; Rhine ve Severance, 1970, aktaran Elliot ve Devine, 1994). Bu gibi durumlarda, tutum değiştirmenin gerçekleşmesi için daha fazla bilişsel uğraşa ihtiyaç duyulacağı yorumu yapılmıştır (Goethals ve Cooper, 1975, aktaran Elliot ve Devine, 1994). Bir önceki araştırma sorusuna benzer şekilde, yılmazlık ve bilişsel uyumsuzluk arasında doğrudan bir ilişki gözlemlenmemiştir ve yılmazlık ve ÖDHO'nın tüm boyutları arasında dolaylı bir ilişkiye rastlanmamıştır. Bu sonuçlar da öz-standart modelinin (Stone ve Cooper, 2001) belirtmiş olduğu nedenlere bağlı olarak yorumlanmıştır.

4.1. Gelecek Çalışmalar İçin Öneriler ve Sınırlılıklar

Bu çalışma yarı deneysel bir çalışma olduğu için katılımcıların seçimi tamamen rastgele yönteme dayanamamıştır. Araştırmacılar, gelecek çalışmalarda tam deneysel yöntemi kullanarak benzer bir çalışmayı yapabilirler.

Bu araştırmanın katılımcıları üçüncü, dördüncü ve beşinci sınıfta eğitimlerine devam etmekte olan lisans öğrecilerinde oluşmuştur. Dolayısıyla, katılımcılar okullarda uygulanan değişime gerçek anlamda tanık olamadıkları için yakın zamanda karşı karşıya kalacakları bir değişime göre tutumlarını belirtmişlerdir. Farklı bir değişim önerisi ile, okullarda görev yapmakta olan ve değişimi bizzat yaşayan öğretmenler ve yöneticiler ile benzer bir çalışma yapılabilir. Ayrıca, bu çalışmanın katılımcıları Ankara ilindeki bir devlet üniversitesinin eğitim fakültesinde eğitimlerine devam eden öğrencilerden oluşmaktadır. Gelecek çalışmalarda farklı iller ve örneklemler ile bu çalışamnın sonuçları test edilebilir.

Diğer bir nokta ise, bu araştırmada aday öğretmenlik uygulaması programının yalnızca başlangıç aşamasına ilişkin bireysel tutumlar ölçülmüş oldu. Bilindiği üzere, değişimin uygulanması ve kurumsallaşması da sonraki süreçleri ifade etmektedir. Bu anlamda, gelecek çalışmalarda ilgili programın uygulanması sırasında ve devamındaki yerleşik bir hale gelip kurumsallaşması aşamasında da bireylerin tutumlarının incelenmesi daha kapsamlı çıkarım imkanları verecektir.

Ayrıca, bilişsel uyumsuzluk kavramı uzunca bir süredir kullanılmasına ragmen, eğitim alanında ve özellikle Türkiye bağlamında pek kullanılmamıştır. Bu çalışmayla, bilişsel uyumsuzluk ölçeği Türkçe'ye uyaralanarak gerekli geçerlik ve güvenirlik değerleri sağlanmıştır. Gelecek çalışmalarda, sadece eğitim alanında değil farklı alanlarda da bilişsel uyumsuzluk kullanılarak benzer araştırmalar yapılabilir.

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International Papers (SSCI & ESCI index)

1. Caliskan, Ö., & Holley, K. (Accepted). A comparison of doctoral student support programs: Similarities and differences across national contexts. *Journal of Applied Research in Higher Education*. **[ESCI]**

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4. Holley, K., Caliskan, Ö., & Joseph, J. (2016). Social Ecology and Post-Secondary Education Aspirations of Minority Rural High School Students. Presented at the Association for the Study of Higher Education (ASHE), Ohio, USA.

5. Tingir, S., Cavlazoglu, B., Caliskan, Ö., Koklu, O., & Intepe-Tingir, S. (2016). Effects of Mobile Devices on Students' Achievements: A Meta-

Analysis. Presented at the American Educational Research Association (AERA) annual meeting, Washington, USA.

6. Caliskan, Ö., & Holley, K. (2015). How effective doctoral education programs work: An examination of a faculty development program from the perspectives of PhD students. Presented at the European Conference on Educational Research (ECER), 8- 11 September, Budapest, Hungary.

7. Holley, K., & Caliskan, Ö. (2015). A comparison of doctoral student support programs: Similarities and differences across national contexts. Presented at the American Educational Research Association (AERA) annual meeting, Chicago, Illinois.

8. Gokalp, G., Caliskan, Ö., Zayim, M., Yucel., H. E., Kaya, S., & Cinar., R. (2015). Experience of being a Future Faculty Development Program research assistant at a large university in Turkey. Presented at the American Educational Research Association (AERA) annual meeting, Chicago, Illinois.

9. Engin-Demir, C., Akin, S., & Caliskan, Ö. (2014). The Factors Influencing University Students' Support for Democracy in Turkish Context. Presented at the European Conference on Educational Research (ECER), Porto, Portugal

10. Gökalp, G., & Caliskan, Ö. (2014). Effects of Stress on Turkish Teacher's in Class Decision-Making. Presented at the American Educational Research Association (AERA) annual meeting, Philadelphia, USA.

11. Caliskan, Ö., Yılık, M.A., Bulut-Şahin, B., Kondakçı, Y., & Engin-Demir, C. (2013). Rationales for Regional Internationalization between Turkey and the Balkans. Presented at ECER 2013 (European Conference on Educational Research), 12-15 September 2013, Bahçesehir University, Istanbul, Turkey.

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National Presentations:

1. Kondakcı, Y., Zayim, M., & Caliskan, Ö. (2010). Investigating School Administrators' Readiness to Change in Relation to Teaching Level of the School, Experiences of the Administrators, and the Size of the School. Presented at the V. National Educational Administration Conference, Antalya, Turkey.

Research Projects Involved:

1- 2014-2015 Academic Year: Strengthening STEM (science, technology, engineering, math) Activities and Careers in a Rural and Underserved County of Alabama State.

2- 2012-2013 Academic Year: The Attitudes of University Students on Democracy and Their Expectations (funded by METU-BAP -1 -05-02-2012-006)

Awards:

1. Best Article (National) Award (12th International Congress on Educational Administration)

2. Academic Year 2008-2009: Graduate Courses Performance Award (The most Successful Student in the M.S. Program of the Department of Educational Administration and Planning)

3. Visiting Scholar Grant (20.600 USD) for one year at the University of Alabama, by TUBITAK (The Scientific and Technological Research Council of Turkey) - 2014.

T. TEZ FOTOKOPİSİ İZİN FORMU

ENSTİTÜ

Fen Bilimleri Enstitüsü ☐

Sosyal Bilimler Enstitüsü ☒ X

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Enformatik Enstitüsü ☐

Deniz Bilimleri Enstitüsü ☐

YAZARIN

Soyadı : ÇALIŞKAN
Adı   : ÖMER
Bölümü : EĞİTİM BİLİMLERİ

TEZİN ADI (İngilizce) : EXPERIMENTAL EXPLORATION OF ATTITUDE CHANGE: A PATH MODEL OF COGNITIVE DISSONANCE, RESILIENCE, AND READINESS FOR ORGANIZATIONAL CHANGE AMONG PROSPECTIVE TEACHERS

TEZİN TÜRÜ : Yüksek Lisans ☐   Doktora ☒ X

1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir. ☐

2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilmek şartıyla fotokopi alınabilir. ☐

3. Tezimden bir bir (1) yıl süreyle fotokopi alınamaz. ☒ X

TEZİN KÜTÜPHANEYE TESLİM TARİHİ: