

TEACHERS' COMMITMENT TO CHANGE:
AN ANALYSIS WITH
THE INTEGRATIVE MODEL OF BEHAVIORAL PREDICTION

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THE INTEGRATIVE MODEL OF BEHAVIORAL PREDICTION**

submitted by **GÜLSÜM BETÜL KARAKUŞ** in partial fulfillment of the requirements for the degree of **Master of Science in Educational Sciences, Educational Administration and Planning**, the Graduate School of Social Sciences of Middle East Technical University by,

Prof. Dr. Sadettin KİRAZCI
Dean
Graduate School of Social Sciences

Prof. Dr. Hanife AKAR
Head of Department
Department of Educational Sciences

Prof. Dr. Yaşar KONDAKÇI
Supervisor
Department of Educational Sciences

Examining Committee Members:

Assoc. Prof. Dr. Deniz ÖRÜCÜ (Head of the Examining Committee)
Baskent University
Department of Educational Sciences

Prof. Dr. Yaşar KONDAKÇI (Supervisor)
Middle East Technical University
Department of Educational Sciences

Assoc. Prof. Dr. Merve ZAYİM KURTAY
Middle East Technical University
Department of Educational Sciences



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.

Name, Last name: Gülsüm Betül Karakuş

Signature:

ABSTRACT

TEACHERS' COMMITMENT TO CHANGE: AN ANALYSIS WITH THE INTEGRATIVE MODEL OF BEHAVIORAL PREDICTION

KARAKUŞ, Gülsüm Betül
M.S., The Department of Educational Sciences,
Educational Administration and Planning
Supervisor: Prof. Dr. Yaşar KONDAKÇI

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Change is inevitable in all evolving societies. Thus, it is accepted as a fact of life. The shutdown during the pandemic imposed by the coronavirus has been one of the latest changes that have impacted the whole world. This situation, of course, influenced the educational system. In line with the recent situations, this study examined teachers' commitment to the educational change they experienced during the pandemic and examined whether the Integrative Model of Behavioral Prediction (IMBP) predicts teachers' commitment to change. A correlational research design was used to examine this. The sample consists of 642 individuals who are teachers in public schools at the elementary, middle, and high school levels. The data was gathered using the convenience sampling approach using an online scale on social media. The collected data were analyzed utilizing hierarchical multiple regression.

All three IMBP dimensions, attitude, perceived norm, and self-efficacy, have a relationship with the three dimensions of commitment to change; affective, normative, and continuance. The highest correlation is found between attitude, which is a dimension of IMBP, and affective commitment to change, which is a dimension of commitment to change. According to the findings, teachers' commitment to educational change is determined by their attitudes towards change, the norms they perceive during change, and their change self-efficacy.

Keywords: Commitment to Change, IMBP, Educational Change, Covid-19



ÖZ

ÖĞRETMENLERİN DEĞİŞİME ADANMIŞLIKLARI: BÜTÜNLEŞTİRİCİ DAVRANIŞSAL TAHMİN MODELİ İLE ANALİZİ

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Yüksek Lisans, Eğitim Bilimleri, Eğitim Yönetimi ve Planlaması Bölümü

Tez Yöneticisi: Prof. Dr. Yaşar KONDAKÇI

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Değişen tüm toplumlarda değişim kaçınılmazdır. Bu nedenle değişim, hayatın bir gerçeği olarak kabul edilir. Koronavirüsün dayattığı pandemi sırasındaki kapanma, tüm dünyayı etkileyen son değişikliklerden biri oldu. Bu durum elbette eğitim sistemini de etkilemiştir. Son zamanlardaki durumlara paralel olarak, bu çalışma öğretmenlerin pandemi sırasında yaşadıkları eğitimsel değişime bağlılıklarını incelemiş ve Bütünleştirici Davranışsal Tahmin Modeli'nin (BDTM) öğretmenlerin değişime olan bağlılığını tahmin edip etmediğini incelemiştir. Bunu incelemek için ilişkisel araştırma tasarımı kullanılmıştır. Örneklem, devlet okullarında ilkokul, ortaokul ve lise düzeyinde öğretmenlik yapan 642 katılımcıdan oluşturmaktadır. Veriler, sosyal medyada çevrimiçi bir ölçek kullanılarak kolayda örnekleme yaklaşımı kullanılarak toplanmıştır. Toplanan veriler hiyerarşik çoklu regresyon kullanılarak analiz edilmiştir. BDTM'nin boyutları (tutum, algılanan norm ve öz-yeterlik) ve adanmışlığın boyutları (duygusal, normatif ve süreklilik) arasında ilişki

olduđu gözlemlenmiştir. En yüksek korelasyon, IMBP'nin bir boyutu olan tutum ile değişime bağıllığın bir boyutu olan değişime duygusal bağıllık arasında bulunmuştur. Bulgulara göre öğretmenlerin eğitimsel değişime bağıllıkları değişime yönelik tutumları, değişim sırasında algıladıkları normlar ve değişim özyeterlikleri ile belirlenmektedir.

Anahtar Kelimeler: Değişime Adanmışlık, BDTM, Eğitim Değişikliği, Covid-19





To my beloved family

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LIST OF ABBREVIATIONS

AMOS	Analysis of Moments Structures
CFA	Confirmatory Factor Analysis
CFI	The Bentler Comparative Fit Index
CTC	Commitment to Change
IMBP	Integrative Model of Behavioral Prediction
M	Mean
MoNE	Ministry of National Education (Turkey)
RFC	Readiness for Change
RMSEA	Root Mean Square of Error of Approximation
SD	Standard Deviation
SPSS	Statistical Package for the Social Sciences
SRMR	Standardized Root Mean Square Residual
TES	Turkish Educational System
TLI	Tucker-Lewis Index
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
VIF	Variance Inflation Factor

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

In today's world, everything is changing. The Ancient Greek Philosopher Heraclitus stated that "Everything changes. The only constant is the change." Especially since the coronavirus pandemic has begun, people's lives have changed in every aspect. Now, people try to take care of all their work from home as much as possible, and they do not communicate much with their friends, colleagues, or even families. That is why this change gives rise to organizational change in organizations of all sizes. At the local level, change is a continual process where the members of the organization interact and make sense of their own social reality. Histories, narratives, practices, and multiple realities can be expressed at the local level by contributing to small-scale changes (Boonstra, 2004). Change pressures come from both inside and outside the organization. Considering the dynamics of change in the organization, there might be a variety of external factors that cause organizations to change. The need for change contains internal procedures at the core of all organizational change. In order to survive, an organization must forge ahead of these pressures (Polyzoi et al., 2003).

The leader who manages the change must handle all aspects properly for the change to be successful when it is implemented. However, it should not be forgotten that the implementation of change is carried out by the members of the organization (Armenakis & Harris, 2009; Bernerth, 2004; IEDP Editorial, 2017). During change, organization members may show unavoidable and natural behavioral responses such

as fear, low motivation, a tendency for stability, self-distrust, and insecurity (Göksoy, 2017). It is understandable that members of the organization felt this way during change, especially considering a major change like the coronavirus pandemic.

1.1.1 Covid-19 Pandemic and Change in TES

External factors that shape and promote change have tremendously influenced education (Polyzoi et al., 2003). With the change brought about by the coronavirus pandemic, major changes have occurred in the education system. For this reason, lessons were taught online to minimize communication during the restrictions. The Turkish educational system (TES) was prepared for this change is a controversial issue. However, the critical point here is whether the teachers, who are the main practitioners of education, are ready for this change or not. While educational change takes place, the importance of teachers' duties during this change should not be forgotten. Teachers must reflect on the change that will be made with a decision from the top management to the students. Since teachers are in contact with students, they will first experience any changes in the school through teachers. Moreover, teachers' educational experiences have been influenced by the pandemic. It is included the impacts on teachers' commitment to adopting online learning (Rasmitadila et al., 2020). Therefore, teachers' adaptability in the transition from face-to-face to online education can be associated with their commitment to change (CTC). Therefore, the teachers' CTC may have an influence on the success of online education. According to Oduntan (2019), in order for teachers to succeed in their professions, they must demonstrate commitment and a willingness to adopt some innovations introduced to the school. Hence, teachers' CTC has gained importance, mainly due to the change created by the coronavirus pandemic.

1.1.2 Commitment to Change and IMBP

This study will examine the teachers' CTC using the Integrative Model of Behavioral Prediction (IMBP). IMBP was given its final form by Fishbein and

Ajzen (2010) as a result of many years of work. The IMBP supports that behavior is performed under intentions. In the original model, the intention is formed as a result of one's attitude, perceived norm, and self-efficacy. If it is considered that the behavior is exhibited directly by neglecting the intention step, there are three factors that determine the behavior: attitude, perceived norm, and self-efficacy. Besides that, some of the factors affecting the CTC are attitude toward change (Irfan et al., 2021), organizational culture (Lim et al., 2021; Raeder & Bokova, 2019), and change-related self-efficacy (Wanberg & Banas, 2000). That is why a person's CTC can be explained with IMBP, since the CTC and the components of IMBP, which are attitude, perceived norm, and self-efficacy, are similar in terms of the meanings they represent.

When IMBP was developed, it was first used in health care and health promotion (Fishbein, 2000). This model has been tested on people with health problems who need to change their behavior (Fishbein & Yzer, 2003). For this reason, it was applied to people who are smoking to make them quit smoking. That is, IMBP was used to measure behavior change. In other words, measuring the change is suitable for the structure of the IMBP. Besides, commitment is a very strong indicator of intention (Jimmieson et al., 2009; Robbins & Barnwell, 1994). Since behavior emerges with intention in the IMBP, it is possible to analyze commitment with IMBP when considered in the context of change. Therefore, utilizing the IMBP in this study is an ideal framework for gauging teachers' CTC. Since teachers' CTC is explained by IMBP, the variables of the study are CTC, attitude, perceived norm, and self-efficacy.

1.1.2.1 Organizational Commitment

Organizational commitment is defined as “the relative strength of an individual’s identification with and involvement in a particular organization” (Mowday et al., 1979, p.226). In other words, organizational commitment is giving individuals' effort toward their work to be part of the organization. Although organizational commitment is a broad field, the most significant and pioneering model is the one

developed by Allen and Meyer (1996). Their organizational commitment model with three components is a well-known model in organizational commitment and also forms the basis of the field of the commitment to organizational change.

1.1.2.1.1 Commitment to Change

According to Herscovitch and Meyer (2002), CTC consists of three components: affective, continuance, and normative. These components might be viewed as separate but combinable things. These components form an individual's CTC when they come together. As a result, different causes for a person's CTC can coexist, and one person's CTC might differ from another person's CTC.

Teachers' CTC is defined as how much they are interested in educational changes and how much they want to contribute (Leithwood et al., 1994). Teachers' level of commitment can be determined by examining how effectively teachers respond to change intervention. Teachers' responses can be visible via actions that range from somewhat passive to highly active. Focusing on performing a task efficiently (Reyes, 1990), giving one's full attention to the task (Becker, 1960), and adhering to the rules set forth for the organization of the school (Tarter et al., 1989) are the elements of the passive action. On the contrary, active action is related to extra effort (Kushman, 1992), loyalty (Reyes, 1990), and a displayed desire to innovate (Kushman, 1992). In conclusion, teachers' levels of commitment during change can be measured by some determinants.

1.1.2.2 Integrative Model of Behavioral Prediction and Its Components

Fishbein and Ajzen began studies of this behavioral modeling in the 1960s and developed the first framework in their published study in 1980. According to Fishbein and Ajzen (2010), human behavior can best be anticipated by one's intentions, which are influenced by one's attitudes toward behavior, perceived norms of behavior, and behavioral self-efficacy. Attitude, perceived norms, and self-efficacy are the predictor variables of intention, while intention is the predictor of behavior, as illustrated in Figure 1.1. Fishbein and Ajzen (2010) explained the

attitude as "a latent disposition or tendency to respond with some degree of favorableness or unfavorableness to a psychological object" (p.76). Moreover, it is defined as "evaluative reactions to psychological objects" (Ajzen, 2001, p.28). Norms are defined as "strict rules, as general guidelines, or simply as empirical regularities" (Fishbein & Ajzen, 2010, p. 129). In addition, *perceived norms* are defined as a "person's perception that important others desire the performance or nonperformance of a specific behavior" (Ajzen & Fishbein, 1980, p. 57). Ajzen (2002) adopted the self-efficacy definition of Bandura (1991) in his study. Bandura (1991) refers to *self-efficacy* as "people's beliefs about their capabilities to exercise control over their own level of functioning and over events that affect their lives" (p. 257). Ajzen (2002) also added "the ability to perform a particular behavior" to the definition of self-efficacy (p. 667). Finally, Fishbein and Ajzen (2010) defined *intention* as a "person's estimate of the likelihood or perceived probability of performing given behavior" (p.39).

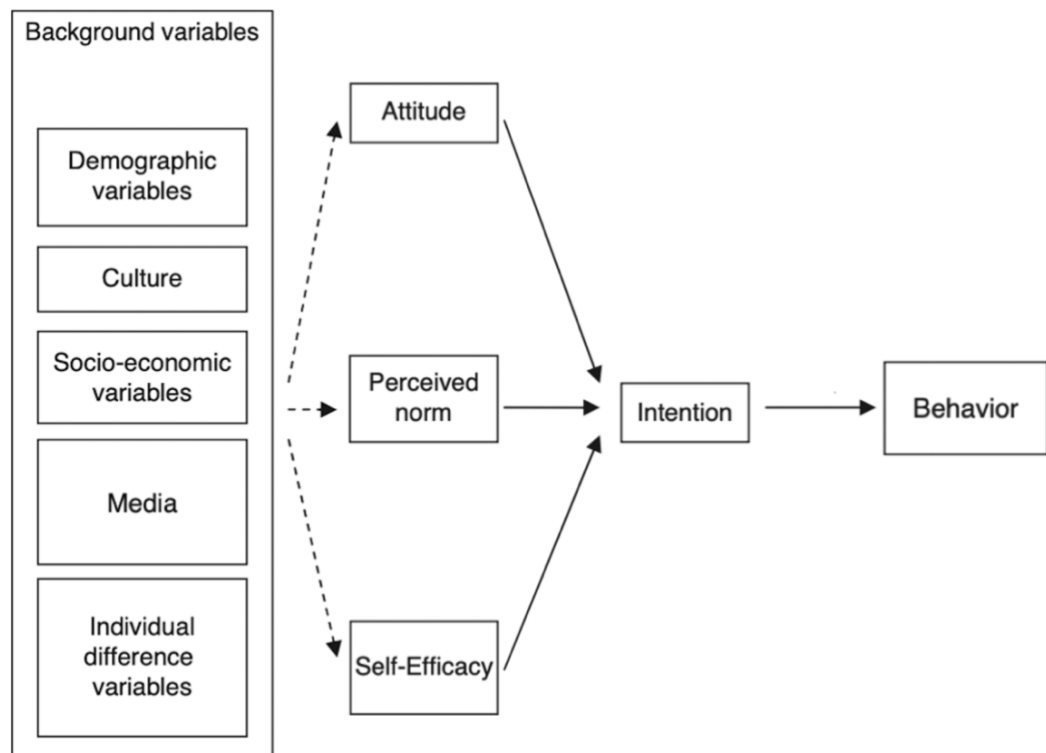


Figure 1.1 Adapted version of the Integrative Model of Behavioral Prediction for this study (Cho & Yzer, 2012)

Attitude, perceived norm, and self-efficacy are the proximal variables of this study since they are components of the IMBP and closely related to affecting factors of CTC. In addition to the predictor variables of the behavior in IMBP (attitude, perceived norm, self-efficacy), there are background variables in the model: demographic variables, culture, socio-economic variables, media, and individual difference variables. Moreover, IMBP emphasizes that background variables can have an impact on behavior, though not directly (Fishbein & Ajzen, 2010). Therefore, background variables are the distal variables of this study as they do not directly affect the CTC.

The Integrative Model of Behavioral Prediction (IMBP) was created to analyze people's behavior. The dimensions of behavior in IMBP and the factors influencing CTC demonstrate semantic similarities. In addition, this model is sufficient to address the issues of change, as IMBP has been tested in groups that need to exhibit behavior change. Besides, teachers' educational experiences include their commitment to adopting online learning during the pandemic (Rasmitadila et al., 2020). Therefore, in this study, the IMBP is used to explain teachers' experiences in the transition from face-to-face to online education. In a nutshell, the current study utilizes this model as the theoretical framework to interpret teachers' CTC during the coronavirus pandemic.

1.2 Purpose of the Study

Theorizing on IMBP, the purpose of this study is to investigate the relationship between attitude, perceived norm, self-efficacy, and CTC from the perspective of public-school teachers in Turkey. This study's findings and results reveal that components of the IMBP can relate to teachers' commitment to educational change using the IMBP. As stated earlier, the IMBP was created for the purposes of health care and health promotion. Many studies in the health care field use this model (Bleakley et al., 2011; Fishbein & Ajzen, 2010; Fishbein & Yzer, 2003; Robbins & Niederdeppe, 2014; Tsochas et al., 2013). These studies were conducted on groups with health issues who sought to change their habits. Although this model was not

created to examine teachers' commitment to change, the behavioral change basis of the model is promising. There are a few studies using the IMBP in the literature about teachers' use of technology (Admiraal et al., 2013; Kreijns et al., 2013; Vermeulen et al., 2014) and teacher training (Danter, 2005). The most important thing, while there are several studies in the literature describing teachers' behavior with the IMBP by using correlational study (Kreijns et al., 2014; Vermeulen et al., 2014), none of them is a correlational study explaining teachers' commitments to change using the IMBP especially in the Turkish school context. Therefore, this study is a unique example and fills the gap in the literature. The contribution of this study to literature in brief; (1) teachers' commitment during the pandemic, (2) the relationship between the IMBP and commitment, and (3) explaining the behavior of teachers with the IMBP. Consequently, this study aims at providing a clear and holistic perspective to understand the teachers' CTC during the coronavirus pandemic.

Some modifications were made to the variable names in accordance with the content of the study within the scope of change in the school. In order to do that, (1) attitude stands for teachers' attitude toward change, (2) perceived norm stands for school culture, and (3) self-efficacy stands for teachers' self-efficacy, in this study. Accordingly, *the criterion variable* of this study is the teachers' level of commitment to educational change. *The predictor variables* of this study are teachers' attitudes towards change, school culture in the changing environment, and teachers' self-efficacy. Hence, this study will answer the following research question below:

What is the relationship between teachers' attitudes towards change, school culture, and teachers' self-efficacy, and commitment to change?

Accordingly, if this question is taken more specifically:

Q₁: Is there a significant positive correlation between the IMBP components, which are attitude, perceived norm, and self-efficacy, and the "affective" dimension of commitment to change?

Q₂: Is there a significant positive correlation between the IMBP components, which are attitude, perceived norm, and self-efficacy, and the "normative" dimension of commitment to change?

Q₃: Is there a significant positive correlation between the IMBP components, which are attitude, perceived norm, and self-efficacy, and the "continuance" dimension of commitment to change?

1.3 Significance of the Study

This study makes a contribution to theory, practice, and research. This study is one of the rare studies to look into CTC from the standpoint of IMBP especially in the educational field; therefore, this study makes a theoretical contribution to the field. This approach is a contribution to 'the commitment to change' literature because there is no other study like this one in the literature that uses IMBP as a framework. From a reversed perspective, application to IMBP is also a test for the model. In other words, the application of a model developed in the health care field in education management is also a validity test for the model.

This study has contributed significantly to practice in addition to its theoretical significance. As a result of the findings, it will be revealed how the teachers, namely the actual practitioners of the change, should be approached during the change in order for the change to be successful. To illustrate, the results of the study show that "affective" CTC has more impact on teachers, it is concluded that they support change because they like their job. Therefore, to get teachers' support during the change, the workload can be reduced, or their salaries can be increased so that they love their work. Since they love their job, they become more committed to change, and change can result in success.

Finally, the study has implications for research on the CTC. This study supported the CTC literature in terms of its findings which show that affective CTC is positively correlated with normative CTC and negatively correlated with continuance CTC (Cunningham, 2006; Raeder & Bokova, 2019). Besides, this study

has contributed to the literature on IMBP and teachers' perspectives on educational change.

1.4 Definitions of Terms

The following definitions provides explanations the variables utilized in this study.

Attitude: Considering the definition of Gagné and Medsker (1996) for school, attitude towards change can be defined as a school's internal condition that impacts a teacher's behavior choices or a response tendency toward change.

Perceived norms: "A school's culture is characterized by deeply rooted traditions, values, and beliefs, some of which are common across schools and some of which are unique and embedded in a particular school's history and location." (Kruse & Louis, 2009, p. 3)

Self-efficacy: A teacher's self-efficacy is the belief that a teacher has the ability to fulfill obligations, tasks, and challenges with success related to their professional role (Caprara et al., 2006).

Commitment to change: A teacher's commitment to change is their adoption and desire to contribute to changes in the school's structure and development (Leithwood et al.,1994).

Educational Change: It is the alteration of the education system from face-to-face education to online education during the Covid-19 pandemic.

CHAPTER 2

LITERATURE REVIEW

This part of the thesis gives theoretical and empirical information about the variables of this study. In addition to the theoretical framework in the introduction, the literature review starts by examining the fundamental studies of the IMBP and how it got its final form, as well as the studies on this model are discussed. In this section, each predictor in the study, which are perceived norms, attitude, and competence, are handled separately, and their relations with education are examined according to the studies in the literature. Subsequently, organizational change in general and then organizational change in school are covered. Then, the studies on educational change and its place in this study were examined and discussed. Afterward, literature on organizational commitment and CTC is provided, and then teachers' CTC (the outcome variable of this study) is reviewed and reported. Finally, the chapter concludes with a summary of the literature review.

2.1 The Integrative Model of Behavioral Prediction

This study utilizes the Integrative Model of Behavioral Prediction (IMBP) as a theoretical framework. The framework asserts that behavior has connotations with the attitude, norm, and efficacy belief. As a result, the IMBP is an integration of a few theories, including the Theory of Reasoned Action (Fishbein & Ajzen, 1975), Theory of Planned Behavior (Ajzen, 1985), and Social Cognitive Theory (Bandura, 1986). Although each of these theories has its strengths, Fishbein and Ajzen (2010) integrate these strengths into their model in order to provide a broader approach.

According to the Theory of Reasoned Action (TRA), the intention to do an activity determines one's behavior. People believe that they can perform the behavior when they intend to. Furthermore, in this model, people's beliefs that their job will turn out the way they want are seen as a predictor of behavior. This belief is based on two factors which are attitudes towards acts or behavior and subjective norm (Fishbein & Ajzen, 1975). In Figure 2.1, one-way straight arrows indicate that one thing has a direct effect on another thing. As seen in the figure, attitude towards act or behavior and subjective norms have an effect on behavioral intention; and behavioral intention also influences behavior. Besides, when a person's attitudes and subjective norms towards an action get higher, there is high probability they carry that action out (Fishbein & Ajzen, 1975; Spielberger & Staats, 2004).

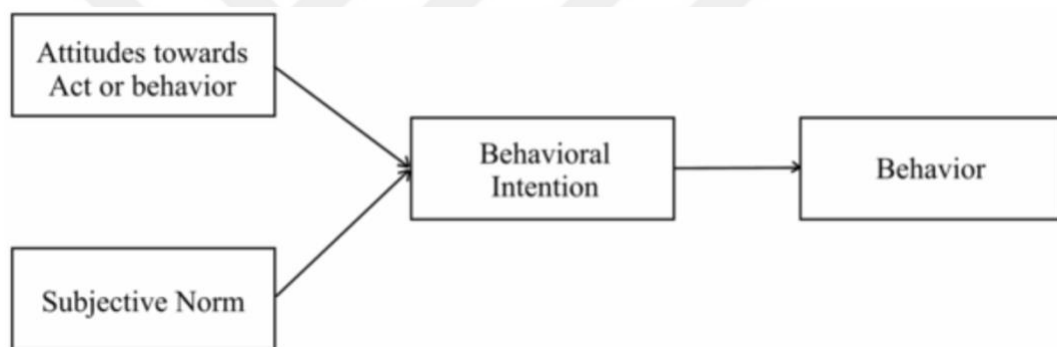


Figure 2.1 *Diagram of the Theory of Reasoned Action (Fishbein & Ajzen, 1975)*

According to the Theory of Planned Behavior (TPB) (Ajzen, 1985), behavioral intentions are influenced by attitude toward behavior, subjective norm, and perceived behavioral control. Attitude toward behavior relates to how a person evaluates the target behavior, whether positively or negatively. Subjective norm is the situation in which a person decides to perform a behavior with the effect of perceived social pressure. Perceived behavioral control refers to the belief that an individual can perform a behavior according to the difficulty level. The TPB varies from the TRA in that it includes perceived behavioral control (Ajzen, 1985). Moreover, it is argued that these three premises of intentions develop from behavioral beliefs, normative beliefs, and control beliefs. In Figure 2.2, straight one-

way arrows indicate that one thing has a strong effect on another, while one-way dotted arrows indicate that one thing has a weak effect on another. In addition, it is seen that there are two-way arrows in the figure, indicating that only those two factors can affect the intention.

Furthermore, TRA gives successful results when an individual's voluntary behaviors are examined. If an individual's behavior is not entirely voluntary, they may not be able to perform the behavior due to the interference of environmental conditions, even if they are motivated by their attitudes and subjective norms. TPB, on the other hand, successfully examines the behavior of individuals when they do not volunteer entirely (Ajzen, 1985; Shaw, 2016).

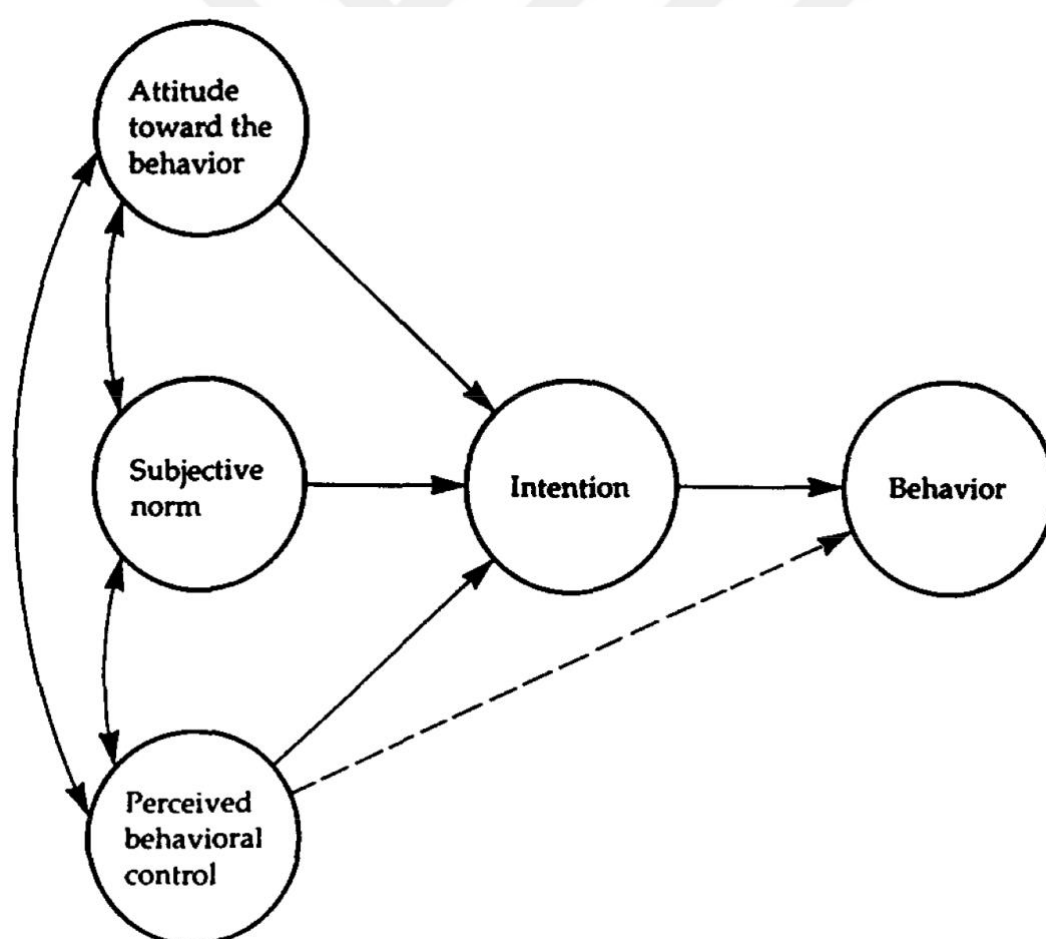


Figure 2.2 *Diagram of Theory of Planned Behavior (Ajzen, 1985)*

Some studies suggest that behavioral intention does not always lead to actual behavior by emphasizing the limitations of these two theories, TRA and TPB. (Mayer et al., 2009; Stern, 2000). Arguments against these two theories played an essential role in the emergence of IMBP, which is a model that includes the self-efficacy factor from Social Cognitive Theory (Bandura, 1986) and the effect of involuntary factors on behavior. Since this model was developed in the field of health, Fishbein and Ajzen presented the theoretical framework of the model for the first time at a workshop on the field of health in 1992. After this, the model's foundation is established by conducting a longitudinal study of HIV prevention behaviors by Fishbein and his colleagues (Kasprzyk et al., 1998). In addition, studies have been conducted on health behavior interventions that focus on the determinants of behavioral intention identified by the model (Fishbein & Cappella, 2006; Fishbein & Yzer, 2003). On top of all these studies, the final version of the model was completed in 2010 by Fishbein and Ajzen by adding broader definition to components of the model, as seen in Figure 2.3.

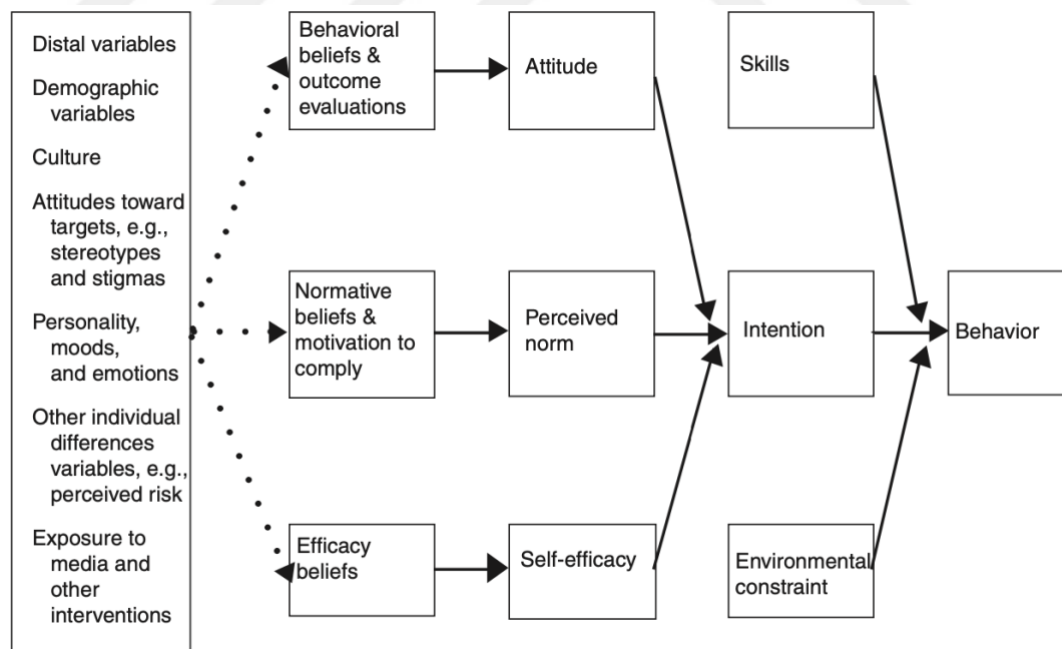


Figure 2.3 *Diagram of the Integrative Model of Behavioral Prediction (Fishbein & Yzer, 2003)*

One of the most important things about the IMBP is its ability to describe any behavior in every community with only a few variables. The integrative model explains how people's intentions to conduct a behavior emerge from reasonable but not necessarily logical ideas from specific beliefs people have about the behavior. The phrase reasonable in this context suggests that if people feel that doing something is a good thing, no matter how illogical, this encourages them to do it (Chen, 2018; Fishbein & Ajzen, 2010; Fishbein & Yzer, 2003). To illustrate, when some people talk about a situation they do not want to happen, they tap a wooden object with the back of their fingers in hopes of preventing that lousy situation from happening. Hitting or not hitting the wooden object is not a factor in the occurrence of that situation and is actually an irrational event, but some people do it because they believe that hitting the wooden object prevents the dire situation. The integrative model, therefore, explains any behavior regardless of whether the behavior is considered rational or irrational, as in this example.

For the IMBP, distal variables are essential since they influence a person's behavior, even if only indirectly, as seen in Figure 2.3 with one-way dotted arrows. Individual differences in beliefs are influenced by distal variables, which can be an infinite amount of them. Fishbein and Ajzen (2010) describe the beliefs as subjective probabilities. There are three categories of beliefs: behavioral, normative, and efficacy. Also, beliefs form the determinants of intention: attitude, perceived norm, and self-efficacy. At last, environmental constraints, characteristics, and intention are determinants of behavior. Attitude, perceived norm, self-efficacy, and the point of view that these headings are used in this study are handled separately in the following sub-headings.

2.1.1 Attitude

A person's attitude is their assessment of how positive or negative it would be for them to execute a specific behavior (Cho & Yzer, 2012; Fishbein & Ajzen, 2010). Similarly, *attitude* is defined as the totality of pleasant or unpleasant emotions felt towards someone, something, or an issue (Bohner & Dickel, 2011; Petty &

Cacioppo, 1996). Moreover, it is stated that while people's beliefs determine their attitudes, their attitudes determine their behaviors. It is also highlighted that beliefs are generally connected with behavior only because they help to shape attitudes. Giving an example of the effect of attitude on behavior; "an advertiser might want to convince you that a certain kind of car got good gas mileage (belief change), so that your liking for the car would increase (attitude change) and that you would become more likely to buy the car the next time you needed one (behavior change)" (Petty & Cacioppo, 1996, p. 7). The given definitions and the example are identified in terms of attitude in the IMBP. The next sub-heading gives the meaning to be used in this study and the relevant literature review.

2.1.1.1 Teachers' Attitude Towards Change

An attitude toward change is defined as a school's internal state that influences a teacher's behavior or response toward change (Gagné & Medsker, 1996). A few studies on teachers' attitudes towards change are given. Firstly, a study on teachers' attitudes towards change was done by Bențea in 2013. According to the study's findings, teachers with a positive attitude toward change approached the school culture more harmoniously, completed the tasks and goals of their organization more clearly, and were more productive in their work organization than teachers with a negative attitude toward change. Furthermore, novice (0-5 working years) and senior (10+ working years) teachers evaluated the general attitude toward change to be more flexible and adaptive than teachers with medium length of service (5-10 working years).

Anggraeni, in his study in 2020, aimed to determine whether many factors (organizational communication, organizational learning, and attitude towards change) are related to commitment to organizational change. It is confirmed the hypothesis about CTC and attitude towards change and also found a positive relationship between them. That is, as one increases, the other also increases.

Another study on teachers' attitudes toward change is conducted by Hoffman (2020). In this study, teachers were grouped and compared according to the level of school they studied, which are elementary, middle-level, and secondary. When evaluated in general, it was seen that teachers showed a positive approach with a negligible effect on change. That is, teachers' attitudes toward change are positive but not high.

A study about teachers' attitudes toward change, efficacy, and burnout during the COVID-19 pandemic was done by Sokal, Trudel, and Babb in 2020. The study indicated that the transition from face-to-face to online teaching during the COVID-19 pandemic was a rational option made by some teachers to preserve both learning and safety, but others considered that online teaching emphasized inequalities like technological. In addition, the result of the study highlights that teachers' attitudes towards change become more negative during the pandemic period.

Irfan, Amin, Khizar, and Saeed performed another study in 2021 to determine the relationship between individuals' attitudes towards change and organizational commitment. Individuals' positive attitudes toward change have a positive relationship with organizational commitment, whereas individuals' negative attitudes toward change have a negative relationship with organizational commitment.

In summary, teachers' positive attitudes towards change positively affect school culture and functioning. However, there are different views in the literature regarding the adaptation of novice teachers and teachers with a medium length of service to change. While some studies argue that novice teachers have a more positive attitude towards change than teachers with a medium length of service (Bențea, 2013), other studies argue the opposite (Kondakçı et al., 2015; Maskit, 2011). In addition, studies examining the relationship between teachers' attitudes towards change and their CTC have found positive correlations between these two concepts (Anggraeni, 2020; Irfan et al., 2021; Yousef, 2000). In addition, studies on teachers' attitudes toward change during the coronavirus pandemic found that (1) the changing teaching system was found to be logical by some teachers in terms of

security, while some teachers considered it a change in which technological inequalities would be evident (Gómez-Domínguez et al., 2022; Sokal et al., 2020), (2) teachers' attitudes towards change during this change is getting worse (Daumiller et al., 2021; Sokal et al., 2020). Besides, Bouckenooghe (2010) stated that attitude consists of two main concepts; (a) readiness to change; and (b) resistance to change. However, based on a review of the attitude towards change literature, there is a high consensus on what it means for the RFC. In addition, it is thought that the content of RFC and the functional definition of the attitude towards change are compatible with each other, so there is no significant difference in meaning between them (Holt et al., 2007a; Madsen et al., 2005; Piderit, 2000; Todnem By, 2007). Therefore, a brief literature review on RFC is provided in the next sub-heading.

2.1.1.2 Readiness for Change

Individuals' RFC is made up of the sense of how necessary change is according to their beliefs, attitudes, and organizational perceptions (Armenakis et al., 1993). Furthermore, it is crucial for organizational development that individuals in the organization are physically and psychologically ready for change (Hanpachern et al., 1998).

One of the essential studies in the field of attitude towards change was made by Piderit in 2000. As mentioned above, this article also evaluated individuals' RFC as an attitude. Research on readiness to change is examined for varied focus on attitudes conceptualizations. A new view of conception as multidimensional attitudes towards organizational changes is presented. As a result of the study, the concept of RFC is highlighted in three dimensions: cognitive, emotional, and intentional. The first dimension, *cognitive*, is beliefs that an individual has either positive or negative towards an event. The second one is *emotional*, which is individuals' experience with their feelings concerning their attitude to an event. The final and third dimension is *intentional*, which is an individual's attitude towards an event based on their purpose to act in the future. Piderit's study is also critical because one of the scales used in this study is developed over these three dimensions

to determine teachers' RFC – teachers' attitude towards change – (Kondakçı et al., 2013).

The following study found in the literature was conducted by Akbulut, Kuzu, Latchem, and Odabaşı in 2007. In the study, it is considered a change within its vision and strategic directions, and it determined whether the teaching staff at Anadolu University is ready for this change. The findings showed that about 30% of the teaching staff are early adopters, which means ready for change.

Zayim and Kondakçı carried out another study on RFC in 2014. The purpose of this study is to look into the impact of trust on teachers' RFC. It has been discovered that trust has a motivating effect on teachers who exhibit supportive behaviors during the change process. Thus, perceived organizational trust is a strong predictor of teachers' RFC. However, it has been noted that, while instructors have good attitudes toward change, they are not eager to execute it. Furthermore, the study's findings demonstrated that teachers' trust in their colleagues was associated with teachers' emotional RFC.

Woo conducted the following study in 2014 to deal with the practical implications of organizational change readiness. The findings show that organizational readiness has an effect on individual readiness. Also, both organizational and individual readiness impact the implementation of organizational change.

Further study on RFC was conducted by Kondakçı, Beycioğlu, Sincar, and Uğurlu in 2015. The study investigated how much trust, social interaction, participative management, knowledge sharing, job satisfaction, and workload perception predicted RFC. The results demonstrated that trust is a weak predictor, while social interaction, participative management, knowledge sharing, job satisfaction, and workload perception are strong predictors. Moreover, while trust and job satisfaction predicted the RFC, it was seen that they were related to teachers' experiences much more than the time of change.

Another study in the literature is conducted by Thien on the factors affecting commitment to organizational change in 2019. As a result of the study, it is revealed that one of the factors affecting teachers' CTC is their RFC. In addition, the study was approached in terms of the components of RFC defined by Piderit (2000). As a result, significant but weak mediation effects were found between teachers' cognitive, emotional, and intentional RFC and their CTC.

In short, from the studies examined on RFC, similarities are seen regarding definition, what it states, and its relationship with CTC. As a result of empirical studies, it is seen that teachers' RFC is low (Akbulut et al., 2007). In studies where teachers' RFC is high, it has been observed that they are not willing to implement the change (Zayim & Kondakçı, 2014). This situation shows that although the teachers stated how much they were ready for change while filling out the scale, they were not as ready as they declared. Besides that, it is stated that teachers' RFC affects their CTC (Thien, 2019). The next sub-heading, perceived norm, is covered within the framework of IMBP and this study.

2.1.2 Perceived Norm

The perceived norm is the social pressure a person anticipates facing when engaging in the behavior (Cho & Yzer, 2012). It includes two components as an injunctive norm and a descriptive norm. An *injunctive norm* is a dimension in which the person expects the support of their essential social connections while performing the behavior. The *descriptive norm* is the dimension in which individuals of this social network engage in the behavior in person. The perceived norm consists of the sum of these two normative beliefs (Fishbein & Ajzen, 2010). In the IMBP, this definition is specified in terms of perceived norm. The meaning to be used in this study, as well as the related literature review, are provided in the following sub-heading.

2.1.2.1 School Culture

Culture consists of a nation's beliefs and core values; therefore, it means something different for every nation. This is also true for the school; in other words, the culture of each school is unique to itself (Brion, 2021). However, categorizing is something that needs to be done in order to understand a school culture. Due to the cultural difference, there are many definitions of organizational and school culture in the literature. Some noteworthy definitions and studies related to this study are reviewed.

Terzi (2005) defines school culture by adapting the four dimensions of organizational culture that Daft (2000) proposes to school culture. School culture includes four dimensions of culture: support, bureaucratic, success, and task. It has been observed that there are all dimensions of cultures in each school, but usually, one of them is dominant. It is provided descriptions of all dimensions of culture below, respectively.

- *Support Culture:* This type of culture is built on human relationships and trust. There is a mutual relationship, commitment, and trust among school members who are teachers and principals.
- *Bureaucratic Culture:* In schools where this type of culture is dominant, there are rational and legal structures. This culture, free of personal relationships, is known for school principals' desire to control all practices in the school.
- *Success Culture:* In this type of culture, doing tasks and achieving goals are prioritized rather than rules. Individual responsibility is emphasized. This type of culture is dominant in schools that support successful teachers.
- *Task Culture:* In this type of culture, the point of interest is the goals of the school, and schools with this type of culture are described as task-centered schools. Almost everything in school serves a purpose. School goals are more important than school members' goals in this type of culture.

In addition, in the study of Terzi (2005), it was found that other dimensions, except bureaucratic, are correlated with each other, but other dimensions of culture, which are support culture, success culture, and task culture, are not encountered in the environment of bureaucratic culture as seen Figure 2.4.

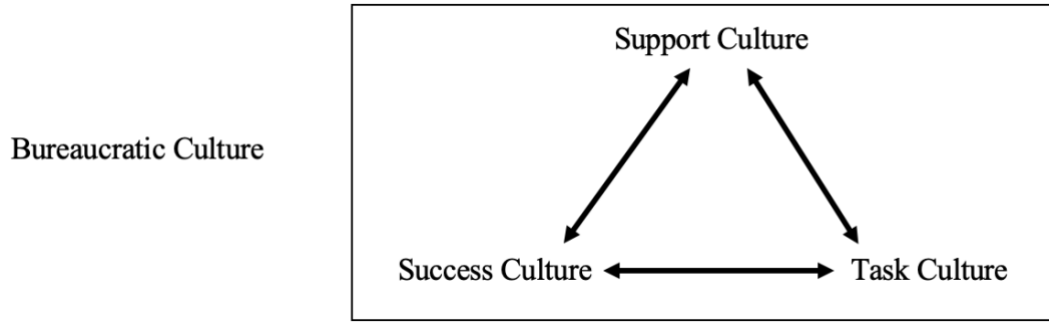


Figure 2.4 Relationships between cultural dimensions (Terzi, 2005)

In addition, as a result of this study, it was revealed that the task culture is dominant in primary schools. Besides these, the scale developed by Terzi (2005) for his study is also used as the scale of this study to measure teachers' perceptions of school culture in the change process.

A study examining the relationship between teachers' organizational commitment levels and their perceptions of school culture was conducted by Sezgin in 2010. The results of the study showed that teachers' affective commitment levels are higher than continuance and normative commitment, and the study confirms that school culture is an important variable that predicts teachers' organizational commitment. Furthermore, among the dimensions of school culture, task culture is the dimension perceived at the highest level, while the dimension evaluated at the lowest level is a bureaucratic culture by teachers.

Cimili-Gök and Özçetin (2021) According to the findings of the study, the average of women in school culture in all aspects is greater than that of males. Affective commitment is significantly affected by the three dimensions of organizational culture: success, task, and bureaucratic. While continuance commitment is most

affected by the bureaucratic culture, normative commitment is most affected by the success culture.

In another study, Rogers and Burkholder (2022) addressed the factors affecting teachers and school culture during the coronavirus pandemic. As a result of the study, many issues have adversely affected teachers and school culture, particularly the following: (1) fear and disappointment caused by changing policies and poor communication between teachers and principals, (2) fatigue caused by the variability of working hours and conditions on teachers, and (3) anxiety about inequality caused by remote teaching.

In brief, regarding the effects of school culture on change, state that school culture is an important variable that affects teachers' CTC (Brion, 2021; Fullan, 2007; Sezgin, 2010; Stolp & Smith, 1997). Additionally, some studies have revealed that the school culture perceived by teachers is predominantly task culture (Sezgin, 2010; Terzi, 2005). Besides, there are factors that negatively affect teachers and school culture during the coronavirus (Rogers & Burkholder, 2022). All these studies show a correlation between teachers' perceived school culture and their CTC. Efficacy, which is the next sub-heading, is discussed within the framework of IMBP and this study.

2.1.3 Efficacy

Self-efficacy is the degree to which a person believes they will complete a behavior successfully (Fishbein & Ajzen, 2010). Considering that the definition of self-efficacy in the IMBP is taken from the definition of self-efficacy in Bandura's (1986) Social Cognitive Theory, self-efficacy is "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (p. 391). However, self-efficacy and competence are not the same things. In the IMBP, competence is defined as reducing the impact of intention on behavior. Competence is the state of being able to do a duty, while self-efficacy is the belief or perception that one can do that duty (Cho & Yzer, 2012). This given

definition is stated in the IMBP in terms of self-efficacy. The following sub-heading describes the meaning to be used in this study as well as the relevant literature review.

2.1.3.1 Teachers' Self-efficacy

The lockdown and distance learning caused by the coronavirus pandemic put teachers under much pressure in the practice of education. Teachers are expected to quickly adjust to the shift from face-to-face education to online education. Teachers' self-efficacy is considered the most powerful indicator of this adaption process (Hodges et al., 2020). According to the teacher efficacy model of Tschannen-Moran, Hoy, and Hoy (1998), teachers' self-efficacy can be examined by two fundamental components: analysis of teaching tasks and assessment of personal teaching competency. Teachers assess their efficacy by analyzing the needed tasks and evaluating their teaching skills. One of the most significant aspects of this model is its changing nature since each learned new experience increases potential self-efficacy expectations (Caprara et al., 2006). Moreover, teachers' higher expectations of self-efficacy themselves make them show tremendous effort and endurance.

A study by Giovanita and Mangundjaya in 2017 explores the effects of individuals' self-efficacy and transformational leadership on the CTC. The study's results related to self-efficacy show that change in self-efficacy has a positive and significant influence on the CTC. Furthermore, change self-efficacy is shown to have a more significant impact on the CTC than transformational leadership. Based on these findings, organizations may want to focus more on increasing individuals' change self-efficacy.

The succeeding study was done by Allouh, Qadhi, Hasan, and Du in 2021 on teachers' self-efficacy beliefs regarding remote teaching during the coronavirus epidemic. As a result of the study, it is seen that the more teachers experience, the higher their self-efficacy perceptions. Overall, the study noted that teachers showed high self-efficacy levels during the coronavirus pandemic. Furthermore, the study

showed that senior teachers have higher self-efficacy levels compared to novice teachers.

In the following study, Pressley and Ha conducted a study in 2021 to explore teachers' self-efficacy levels during the COVID-19 pandemic. According to the findings, teachers teaching remotely have lower self-efficacy levels than teachers teaching face-to-face. However, there is no difference in teachers' self-efficacy scores depending on years of teaching experience or education level.

In the light of the articles reviewed on teachers' self-efficacy, some studies have found that teachers show high levels of self-efficacy in the process of educational change (Allouh, 2021). On the contrary, some studies in the majority find that teachers showed low self-efficacy during the pandemic period (Pressley & Ha, 2021; Sokal et al., 2020). In addition, some studies emphasize that senior teachers show higher self-efficacy compared to novice teachers (Allouh, 2021; Tschannen-Moran & Hoy, 2007), while others emphasize that teachers' working years are not related to self-efficacy (Pressley & Ha, 2021). Besides, the literature has shown that teachers' self-efficacy is an indicator of teachers' CTC.

2.2 Organizational Change

Organizational change refers to the process of altering a significant component of an organization, such as its culture or internal processes (Stobierski, 2020). Research on organizational change started during the 1950s. According to the change model of Lewin (1951), organizational change consists of three stages. Firstly, *unfreezing*, the system that will change must be open to change. The purpose of the unfreezing phase is to raise awareness of how the current level of acceptance is limiting the organization in some way (Armenakis et al., 1993). If organization members learn about a change and believe it is crucial and essential, they will be more motivated to accept it. Secondly, *changing*, it is the process of giving a new shape to the system that is ready for change by dissolving it and then realizing change (Orlikowski, 1996). Organization members begin to acquire new habits, procedures, and ways of

thinking throughout the changing phase. The more prepared they are for this phase, the easier it will be for them to finish. Lastly, *refreezing*, the process of reinforcing and stabilizing the reshaped and transformed system in order to preserve this state. It is the most crucial phase to ensure that organization members do not revert to their old thinking patterns or act before the change is implemented. The efforts must be made to ensure the change is conserved (Lucid Content Team, 2019).

Moreover, Hardison (1998) represented the three stages of the change process, as depicted in Figure 2.5. It was inspired by Lewin's model in general. However, Hardison (1998) focuses on individual and leader's emotional states and duties during these stages. In Hardison's study, the planned change is defined as the formation of an effective organization through planned interventions directed from the top manager of an organization (Beycioğlu & Kondakçı, 2020) to the organization member at the bottom (Louis, 2008).

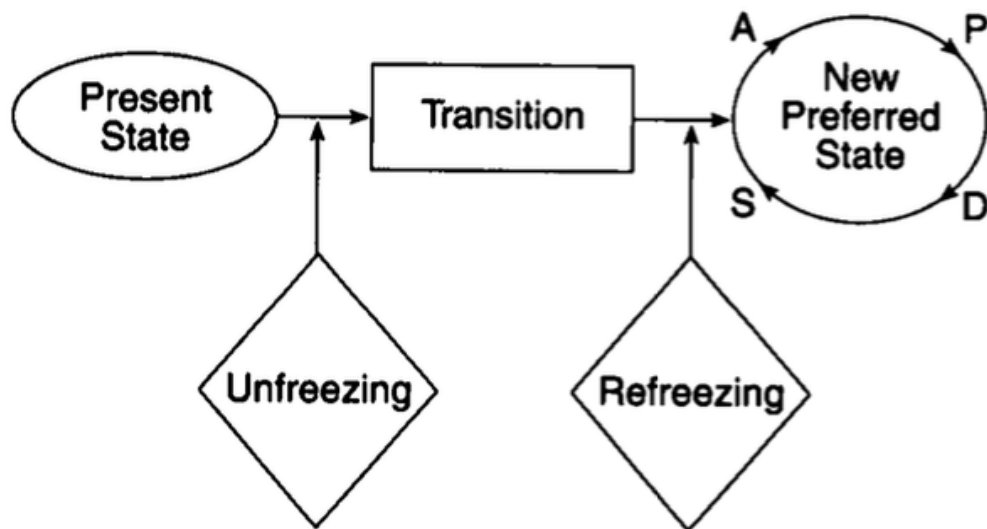


Figure 2.5 Hardison's (1998) the three stages of the change process: the present state, the transition state, and the desired state.

Friedlander and Brown made one of the early studies on organizational change in 1974 under the name of organization development. It was concluded that theory and technology were insufficient in the circumstances of the day to create a planned social system as desired. Golembiewski, Billingsley, and Yeager did another study on organizational development in 1976. This study focused on the trust status of organizational members during change. According to the study, during *beta change*, the trust perception of the organization members may vary from person to person. On the other hand, during *gamma change*, members of the organization may conclude that the change experienced is not related to trust. A further study on organizational change was done by Beer and Walton in 1987. It is focused on the weakness of theories in this field. As a result of the study, it is emphasized that there is not only one right way of organizational change, and that the change process will be different for each organization. In addition, it was highlighted that a practical organizational change theory should focus on leadership, organizational culture, and change. Besides, organizational change practices can generally vary for every circumstance. Implementing a change may show an alteration among cultures due to the diverse dynamics of the setting (Beycioğlu & Kondakçı, 2020). Therefore, how organizational change is implemented, and its content can be expected to differ for every culture and situation.

A crucial set of studies on organizational change has attempted to develop an implementation model. The ADKAR is a model that Hiatt (2006) developed to implement change in organizations such as businesses and governments. ADKAR stands for Awareness, Desire, Knowledge, Ability, and Reinforcement, and each represents a step in the model. In order to make the desired change, the steps must be followed in the order given. The model has been developed with a focus on individuals so that change can occur successfully.

Another model is the Eight Steps Change Model created by Kotter (1996); like the previous model, it states that individuals have a critical place in change. However, although individuals are change agents, this model emphasizes the need for a leader

who provides effective leading for the change to be successful. Therefore, in this model, a senior manager in an organization plays a key role.

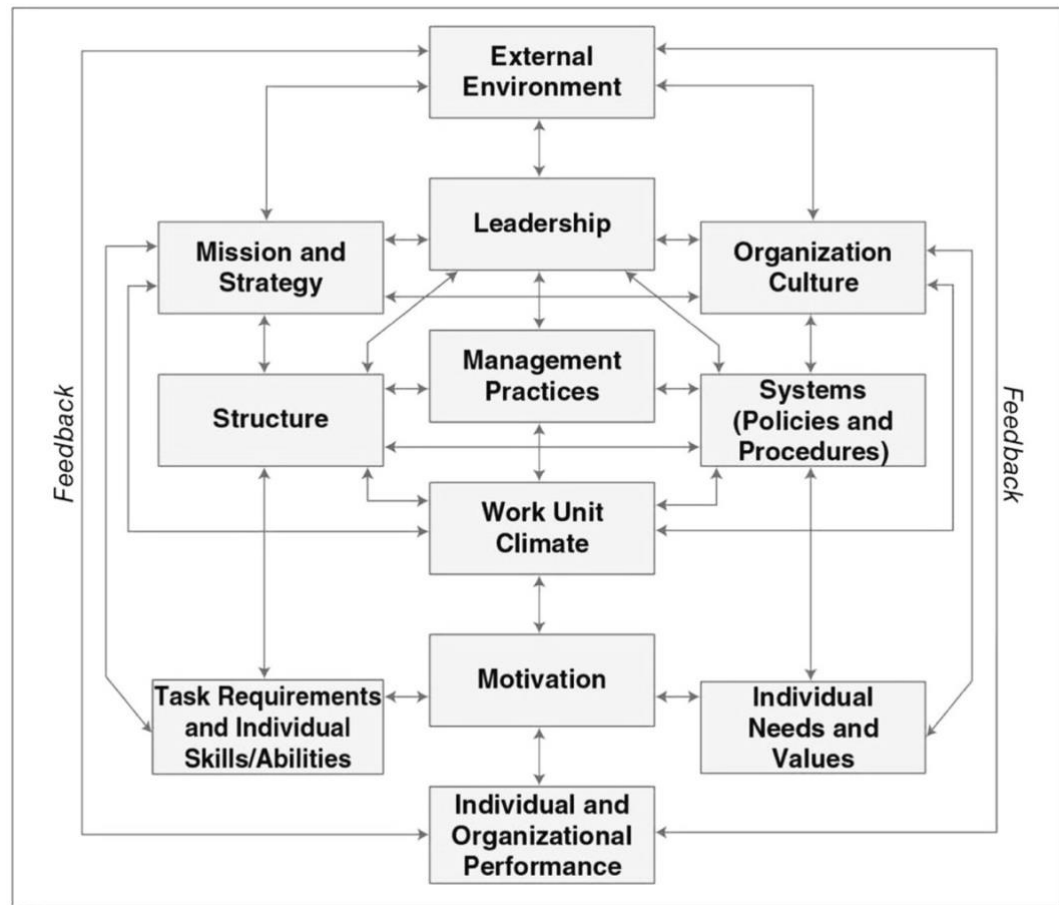


Figure 2.6 *Diagram of the Burke-Litwin Model (Burke, 2008)*

However, one of the most comprehensive models of organizational change was proposed by Burke and Litwin (1992). The bases of the model can be traced back to the 1960s. The Burke-Litwin model illustrates the relationships between transactional and transformational factors influencing change. The external environment, mission and strategy, leadership, organization culture, and individual and organizational performance are the transformational factors in this model, and they are generally positioned at the top of the diagram, as seen in Figure 2.6. The transactional factors are structure, management practices, systems, work unit climate, task requirements, individual needs and values, and motivation. This

model's strengths include using arrows to describe relationships, displaying cause-effect relations, and distinguishing transformational and operational dynamics in organizational behavior and change. Also, its weakness is that it creates confusion because it relates 12 items.

Several scholars laid down the bases of unplanned and emergent change in organizations. Weick and Quinn (1999) examined the nature of organizational change and divided it into two categories: episodic and continuous. The authors described the episodic change as "infrequent, discontinuous, and intentional" (p. 365), while the continuous was described as "ongoing, evolving, and cumulative" (p. 375). In addition to examining organizational change, this study is significant because it provided a new application method to Lewin's (1951) three-stage model of the change process, which is mentioned earlier in this chapter.

The human side of change has been one of the major concerns in change planning and change interventions. The change that is tried to be implemented in an organization may fail at a high rate for some reasons (Beer & Nohria, 2000; Clegg & Walsh, 2004; Doyle et al., 2000; Kotter, 1995). Some of these reasons may be lack of content, context, readiness, adoption, trust, and resources (Armenakis et al., 1993; Beer & Nohria, 2000; Holt et al., 2007b). Even though these studies highlight that organizational change results in failure, it is mentioned in the literature that these studies with this high failure rate are insufficient as empirical findings (Hughes, 2011).

Armenakis and Harris conducted a study on organizational change (2009) focused on individuals in the organization. Successful completion of organizational changes depends on the motivation of individuals in the organization because it is the individuals in the organization who carry out the organizational changes. Thus, according to the authors, there are five essential change beliefs that motivate individuals in the organization: contradiction, appropriateness, efficacy, principal support, and valence, in that order. The first belief in change is *contradiction*, the awareness that change is needed. The second change belief is *appropriateness*,

which is a specific alteration that seeks to identify a contradiction; in this case, the contradiction provides for each situation what is unique and appropriate to the situation. The third change belief, *efficacy*, includes individuals in the organization who have the authority and competence to implement positive change. The fourth is the *principal support* that the extent to which formal leaders in the organization monitor and control change and the effort they make the change a success. Formal leaders are viewed as vertical change agents in this belief. On the other hand, informal leaders of the organization who provide advice and opinions during change are seen as horizontal change agents. The last change belief is *valence*, which is the belief that individuals in the organization will benefit from this change.

Although these studies form a limited set of conceptual and empirical literature, each of these studies has brought different perspectives to organizational change and has made outstanding contributions to the development of organizational change. The importance of the theories that emerged as a result of the studies of Burke and Litwin (1992), Weick and Quinn (1999), and Armenakis and Harris (2009) cannot be denied. Furthermore, the next sub-heading describes the pioneering studies on organizational change in school.

2.2.1 Organizational Change in School

Just as in other organizations, organizational change in school aims to alter, develop, and improve the education given at school (Newton & Tarrant, 1992). Schools and school systems are affected by today's state of change. The schools have an easily influenced structure because they are generally seen as an open system. Thus, they are vulnerable to unavoidable internal and external change forces (Beycioğlu & Aslan, 2010; Beycioğlu & Kondakçı, 2020; Harris, 2006). In this case, understanding of organizational change in school becomes essential. Fullan (2007) explained the educational change process by dividing it into three stages. In addition to Fullan's (2007) definition, Wedell (2009) defined a new educational change process by keeping the names of these stages generally the same and broadening the

definitions. When Fullan's (2007) and Wedell's (2009) definitions of the educational change process are combined, the stages are as follows:

Stage I – *initiation* – It is mainly a stage of reflection and debate. It is the process that leads to and involves the choice to adopt or proceed with a change. This is the period when the concept of change first emerges, and whether it is truly required is likely to be discussed.

Stage II – *implementation* – It includes the initial experiences of attempting to put a concept or reform into action. This stage seeks to sketch out the strategies for the first few years of attempting to implement the practices that change expects to see in schools.

Stage III – *continuation* – It is the change seen as a continuous component of the system. At this stage, change is no longer perceived as a new thing but rather as an accepted and unnoticeable component of how things work in most classrooms in the current system.

Furthermore, Wedell (2009) emphasized that moving on to the next step is impossible if a previous step is not performed entirely successfully. For this reason, these three steps must be completed in order if a change in school is to be successful. Wedell (2009) also added individual perspectives on the educational change process. The exact stages of this process will be different for each individual. However, for the teachers, the change will be effective if the following steps are pursued in order: (1) developing a solid understanding of what the change aims to achieve for classroom practice; (2) planning how to implement new practices in the classroom; (3) trying out new practices with students in the classroom; (4) observing what happens when doing so; and (5) developing a complete personal understanding in practice via repetition. Of course, the change process is not as easy as it is written. Implementing change in school is a complex process (Fullan, 1993; Wedell, 2009). Furthermore, if other important persons in the change process, who are administrators, school leaders, and teacher educators, are also pursuing a similar

change process, the change in the school has a higher chance of being effective (Wedell, 2009).

In conclusion, apart from the studies mentioned above, there are many remarkable theoretical studies on organizational change in school (Fullan, 2007; Hargreaves et al., 2010). However, not as much as organizational change, theories of organizational change in school are also abundant in the literature. However, due to many disparate studies on organizational change practices, the studies show limited effectiveness. Therefore, competition between models occurs in different situations and environments (Beycioğlu & Kondakçı, 2020). Moreover, just as in organizational change, a high failure rate is also observed in the field of educational change (Brown, 1990; Cheng & Walker, 2008; Nir et al., 2017). Both theoretical and empirical studies on organizational change are reviewed in this section. Despite the oppositional studies, most of the literature has emphasized that organizational change often results in failure. This result, which is valid for organizational change, is also valid for organizational change in school. In the next section, educational change in general and during coronavirus pandemic is addressed in the meaning of this study.

2.2.2 Educational Change

The massive changes usually initiate a change in the organization with a development that takes place by external factors in economic, political, demographic, technological, and ecological areas (Burke, 2008). In this case, the external factor is the pandemic. The change caused by the coronavirus pandemic has, of course, also affected the education system worldwide. Educational change happens at the organizational level of a school, district, state, or province from the beginning of the coronavirus pandemic. Although it is said that change is taking place at the organizational level, individuals need to be prepared for it and make the change happen (Waks, 2007). Therefore, the role of the teacher in educational change is crucial because they are responsible for delivering the curriculum to students. Accordingly, Kaden conducted a study on educational change in the

pandemic process in 2020. The study defines educational change during the pandemic as remote teaching, which is the curriculum's delivery by altering the format from face-to-face to online. Kaden (2020) examines the professional life of a teacher who has switched to compulsory online education during the coronavirus pandemic. The study's findings revealed that the teacher's workload had changed and increased. Furthermore, the author considers the transition to compulsory online education as a stage in preparation for future hybrid model education.

Another study on educational change is a review study by Alhat in 2020. In this study, it is emphasized that the coronavirus pandemic, which changed our lives, pushes people into virtual life, and as a result, they are in a virtual environment in many areas, including education. Besides, it is listed the benefits and harms of teaching in a virtual environment. Virtual lessons have advantages such as helping students who cannot attend classes regularly, reducing the fear of community experienced by students in the classroom, being more effective because they do not spend time commuting to school, and improving digital skills. Virtual lessons have disadvantages such as requiring a computer and internet, requiring technology literacy, and the perception of being advantageous only for students in the city.

Further, there is a reflection study on educational change due to the coronavirus pandemic by McQuirter in 2020. In this study, online difficulties experienced during educational changes due to the coronavirus pandemic, such as teachers' technology literacy, will help teachers review lessons for the period after the coronavirus pandemic. Moreover, the study indicated that school administrators' support for the development of technical skills such as technology literacy, along with information sharing among teachers, increases teachers' sense of agency and readiness to accept change.

Another study on educational change is carried out by Aytaç (2021). The objective of this study is to uncover the challenges that Turkish teachers experienced during the COVID-19 pandemic in terms of educational change. The most prevalent challenge teachers confront is that lessons do not progress as expected since not all

students have a technological device or an adequate internet connection to attend the lesson. Furthermore, the teachers reported that the majority of the students were mentally impacted negatively by the pandemic.

In conclusion, as it is a newer topic, the coronavirus pandemic, there is not much research on educational change. However, it is thought that new studies will increase, and the literature will be strengthened over time. Besides, the expected conclusion of these studies examined above is that the transition from face-to-face to online education is an opportunity to re-examine the future education system. In the next section, organizational commitment is addressed in detail.

2.3 Organizational Commitment

Organizational commitment is defined as an individual's willingness to give considerable efforts to the organization (Mowday et al., 1979) and the desire to remain with the organization (Meyer & Allen, 1991). Moreover, as stated by Meyer and Herscovitch (2001), commitment is a balancing or binding force that guides to conduct of behavior. Also, commitment can limit freedom or bind a person to a specific course of action. Scholl (1981) indicated that commitment is a different concept from motivation and attitude. It is proposed that commitment impacts behavior apart from other motivations and attitudes. Furthermore, it may even lead to continuousness in the course of action in the face of challenging motivations or attitudes (Brickman, 1987; Brown, 1996).

A significant study on commitment was done by Allen and Meyer in 1990. This study aims to distinguish three types of commitment: affective, continuance, and normative. As a result of this study, it is proved empirically that affective commitment, continuance commitment, and normative commitment are not a type of commitment, but together they form the commitment. After this study, Allen and Meyer developed the three-component commitment model in 1996. According to the model; (1) *Affective commitment* is anticipated to make individuals feel psychological comfortable and to increase their sense of competence in tasks

oriented in an organization; (2) *Continuance commitment* is formed when an individual is aware of the investments they have made in the organization and its possible consequences; (3) *Normative commitment* has appeared from early social experiences that support individuals' persistent commitment to their organization. Consequently, all these three components come together to form an individual's commitment to their organization.

Furthermore, Morrow (1993) investigated organizational commitment in the work environment based on the model developed by Allen and Meyer (1990). In this study, it is emphasized that the commitment of employees to their work will increase the quality of their work. In other words, the higher the commitment to the organization, the higher the quality of the work done. In addition, this is supported by other studies (Liou, 2008; Meyer & Allen, 1997).

In another study including commitment, Klein and Sorra (1996) developed an integrative model of the determinants of organizational practice effectiveness. In this study, predictors that increase the effectiveness of the organization were determined. As a result, it is revealed that the skills and commitment of the members of the organization are significant determinants.

Consequently, the contribution of these studies to the literature is undeniable because of addressing the significance of the commitment. Although organizational commitment is a broad field, it is imperative as it is the basis of commitment to organizational change. Specifically, Allen and Meyer's (1996) three-component model of commitment is not only a framework for many studies in organizational commitment but also forms the basis of the field of commitment to organizational change. The next sub-heading addresses CTC in the literature.

2.3.1 Commitment to Change

Since Herscovitch and Meyer's (2002, p. 475) definition of the CTC as "a force [mind set] that binds an individual to a course of action of relevance to one or more targets," it is clear that it has an individual focus rather than an organizational focus.

Individuals' perspectives on organizational change are becoming increasingly popular (Foks, 2015). Findings from the organizational behavior literature are used to gather insight into individuals' CTC. According to various studies, commitment is one of the essential factors in individuals' support for change initiatives (Allen & Meyer, 1990; Cunningham, 2006; Herscovitch & Meyer, 2002; Holt et al., 2007a; Stevens, 2013). Additionally, CTC is considered one of the most critical factors for the successful implementation of change initiatives (Bernerth, 2004).

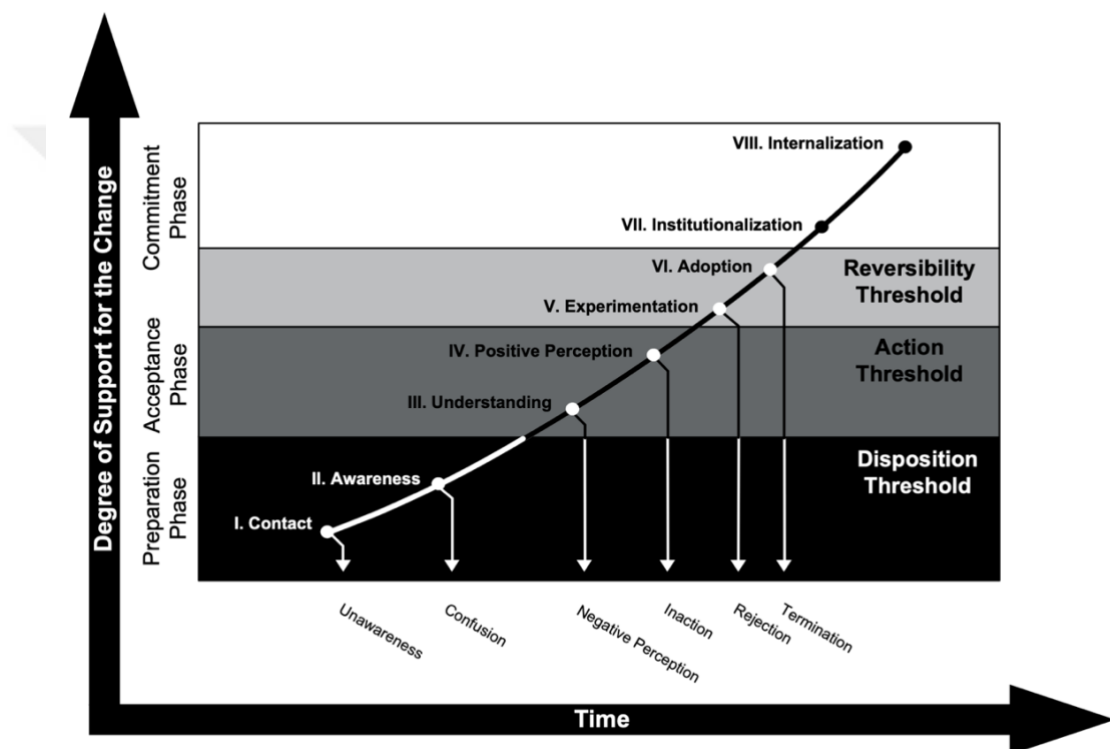


Figure 2.7 *Commitment to Change Phases (Conner & Patterson, 1982)*

Conner and Patterson did one of the pioneering studies in the field of CTC in 1982. The authors depicted people's CTC during the change process as a linear model, as illustrated in Figure 2.7. The model represents how the level of support for change may rise or fall over time. The process of creating commitment may be followed by identifying the points at which a change is endangered—shown by reversed arrows—or advanced to the following upward stage. Conner (1993) also included this model in his study in detail. According to the model, CTC has three phases: preparation,

acceptance, and commitment. Each phase is crucial in the commitment process. Moreover, the model involves disposition, action, and reversibility thresholds. After fulfilling the reversibility threshold, it can be said that an organization is committed to that change. Furthermore, Conner (1993) stated that commitment is essential for successful change. Initiatives will fail unless members of the organization are committed to both achieving the goals of change and paying the price for those goals (Conner, 1993).

The breakthrough study on the CTC was done by Herscovitch and Meyer in 2002 because they have contributed significantly to the CTC literature by developing an existing study/model. The study done by Allen and Meyer (1990) is focused on the three-component commitment model, which consists of affective, continuance, and normative. This model is initially focused on organizational commitment; nevertheless, it is insufficient due to not including change. Herscovitch and Meyer (2002) examined this model in case of change, developed a scale, and gave its final form. For this reason, this model is formed on a CTC as follows.

- *Affective commitment to change* is the willingness to support the change because one believes in its natural benefits. In other words, if a person loves their job and feels deeply bound in it, they want to accept the change to improve their job.
- *Continuance commitment to change* is supporting the change by being aware of the consequences of failure; also known as the fear of loss.
- *Normative commitment to change* is feeling responsibility to promote the change. In other words, it is a sense of obligation to support the change because of the good opportunities that the organization provides a person.

In brief, the members of an organization "can feel bound to support a change because they want to, have to, and/or ought to." (Herscovitch & Meyer, 2002, p. 475). Moreover, this model has formed the theoretical framework of many studies (Bouckenooghe et al., 2014; Choi & Kwon, 2009; Cimili-Gök & Özçetin, 2021; Cunningham, 2006; Foks, 2015; Kim et al., 2021; Mukerjee et al., 2021; Ramos-

Mações & Román-Portas, 2022; Toprak & Aydın, 2015; Vandenberghe et al., 2018). Besides this, the Turkish adaptation of the scale developed in Herscovitch and Meyer's study is one of the scales used in this study. Considering that the model developed by Herscovitch and Meyer (2002) is included in many studies, it is evident that the model and the scale they developed have a dominant effect on the literature.

Another study on CTC was conducted by Cunningham in 2006. This study examined the relationship between people's types of change commitment and their turnover intentions. The results of the study showed that continuance CTC is positively related to turnover intentions. On the other hand, affective and normative commitments to change are found to be negatively related to turnover intentions. In addition, as a result of the study, it was found that normative and continuance commitment have direct effects on turnover in opposite directions. In other words, the higher the normative commitments of individuals, the lower their continuance commitment; or vice versa.

This section examines some of the studies on CTC in the literature. Of course, these studies have brought different perspectives to the literature. All of the pioneering studies (Conner & Patterson, 1982; Allen & Meyer, 1996) are important for the CTC literature, but the most impressive and most used model among these studies is the study of Herscovitch and Meyer (2002). The next sub-heading describes the essential studies on teachers' CTC.

2.3.1.1 Teachers' Commitment to Change

As mentioned earlier, Leithwood and his colleagues (1994) address the teachers' CTC as their adoption and desire to contribute to changes in the school's structure and development. Teachers' CTC may be explained by the fact that they prefer and want to stay at school since they are emotionally tied to it. Teachers who are genuinely committed to change must be able to cope with changes, even if they are under stress (Thien, 2019).

In some studies on teachers' CTC (Leithwood et al., 1994; Liu, 2020; Yu et al., 2002), it is seen that CTC is accepted as the functional equivalent of motivation. Comprehensive motivation theories, especially those of Bandura (1986) and Ford (1992), anticipate the causes and effects of teachers' commitment (Leithwood et al., 1994; Liu, 2020). As to the definition of motivational processes by Ford (1992), it is the properties that try to help a person determine the need for a change in the future. Those processes are personal goals, capacity beliefs, context beliefs, and emotional arousal process, respectively. The adaptation of these steps in terms of teachers' CTC is given below.

- 1) *Personal goals* are future states desired by an individual. This is a significant factor in teachers' commitment because it is an effective quality that drives teachers to take action.
- 2) *Capacity beliefs* are the sum of psychological states such as one's self-confidence, self-efficacy, and self-esteem. When this situation is considered for teachers, teachers should believe that they can achieve something before putting it into action.
- 3) *Context beliefs* are the belief in the existence of support that is necessary for change implementations. Teachers believe that the school administration provides the necessary resources for the successful implementation of change in the classroom.
- 4) *Emotional arousal process* is a state of being prepared to take action, encourage a situation of sudden action, and serve to maintain the current situation. In this way, when teachers work to implement the change, this process continues with positive emotions.

Guerrero, Teng-Calleja, and Hechanova did another study on teachers' CTC in 2018. In the study, data were collected from five different countries – Canada, Mongolia, Philippines, Poland, and Turkey – in order to investigate whether there is a relationship between leadership, change management, and teachers' CTC. The

results of the study showed that leadership and perceived effective change management predict teachers' CTC.

Further study on teachers' CTC was conducted by Thien in 2019. The model of Herscovitch and Meyer (2002) is adapted as a theoretical framework in the study of teachers' CTC. As a result of the study, it is revealed that among the factors affecting teachers' CTC, distributed leadership and commitment do not affect each other, but strict bureaucratic practices indirectly affect teachers' CTC negatively.

Moreover, a study conducted by Cimili-Gök and Özçetin in 2021 revealed that male teachers are more committed than female teachers in normative commitment. On the other hand, female teachers are more committed in affective commitment and continuance commitment. In the total commitment dimension, senior teachers (10+ working years) are more committed than novice teachers (0-5 working years).

Some important studies that have been influential since the emergence of CTC theories and studies are discussed in this section. In addition, during the literature research, it was seen that there are many predictors of CTC. Some studies argue that transformational leadership (Guerrero et al., 2018; Seo et al., 2012), but not distributed leadership (Thien, 2019) is the predictor of CTC. In addition, it has been seen that strict bureaucratic practices negatively affect CTC (Thien, 2019). However, due to the scale to be used in this study, the dimensions of the model of Herscovitch and Meyer (2002) are used in this study. Furthermore, it is seen that female teachers have more commitment than male teachers and also seen that senior teachers are more committed than novice teachers (Cimili-Gök & Özçetin, 2021). In the next section, the starting point, development, and final version of the Integrative Model of Behavioral Prediction (IMBP) are addressed in detail.

2.4 Summary of the Literature Review

In the conducted literature review, the literature on examining teachers' CTC using IMBP was searched, but no similar study was found. However, the components of IMBP's intention, which are attitude, perceived norms, and efficacy, and their

comparisons with their corresponding definitions in school and CTC are provided in the literature review.

The historical development of IMBP is explained in detail throughout the literature review. Three components of IMBP's intention, which are attitude, perceived norm, and efficacy, are explained in detail. Firstly, attitude, the first component of intention, is considered teachers' attitude toward change in this study. The literature has shown that senior teachers have more positive attitudes towards change than novice teachers, although minority studies show the opposite. In addition, studies investigating the relationship between teachers' attitudes towards change and their CTC have shown a positive correlation. As teachers' attitudes towards change become more positive, their CTC also increases, and vice versa. Moreover, the literature demonstrates that teachers' RFC is low.

In addition, the literature states that attitude towards change and RFC coincide conceptually; that is, they mean the same thing approximately. In other words, the teachers' RFC scale, which is used in this study to measure teachers' attitudes towards change, is appropriate according to the literature. Secondly, the perceived norm, the second component of intention, is described as school culture in this study. According to the literature, school culture is an essential aspect that influences teachers' CTC. Furthermore, it was argued that the coronavirus pandemic had a negative impact on school culture and hence teachers' CTC. Finally, efficacy, the third component of intention, is defined as teachers' self-efficacy in this study. The literature has shown that teachers' self-efficacy is an indicator of teachers' CTC. In addition, the literature highlights that teachers have low self-efficacy during the pandemic, which is educational change. Conversely, a minority of studies report that teachers demonstrate high self-efficacy during the pandemic. In addition, it is stated that senior teachers have more self-efficacy than novice teachers. However, a minority of studies have found no link between teachers' years of work and their self-efficacy.

After that, a literature review on organizational change, which is the basis of this study's subject, and organizational commitment is given. There are many essential studies in the literature on organizational change. Although most of these are theoretical, the results of empirical studies are not to be underestimated. Empirical results have shown that the success rate in organizational change is low. This low success rate can be rooted in a lack of readiness, adoption, trust, and resources. Although there is not as much theory of organizational change, there are significant studies on organizational change in school. In accordance with the low success rate of organizational change, organizational change studies at school show the same result. In addition, the literature emphasizes that the existence of too many theories in the field of organizational change and organizational change in school show limited effectiveness in applying the theories.

Organizational commitment is a broad field that examines people's commitment to their organization. Since this study focuses on the organizational change process, the literature review centered on the commitment to organizational change. Although there are many studies on the commitment to organizational change in the literature, the study of Herscovitch and Meyer (2002) has been the basis of numerous studies. In fact, it has formed the theoretical framework in studies on teachers' CTC. In addition, when the studies in the literature are examined, it has been seen that there are many determinants of CTC. From the leadership perspective, it was seen that while transformational leadership is a determinant of CTC, distributed leadership is not. In addition, in the studies on the school, it is seen that female teachers are more committed to change than male teachers. In addition, it is observed that senior teachers are more committed to change than novice teachers.

CHAPTER 3

METHODOLOGY

This section of the thesis contains detailed information regarding the methodological procedures used. First and primarily, the general design of the study was highlighted. Then, the sample selection procedure and demographic features of the sample were discussed. Furthermore, the data gathering procedure was described. Next, the instrumentation section provides specific information on the instruments utilized in the study. Afterward, the finding of confirmatory factor analysis was provided, and then statistical methodologies used in data analysis were given. Finally, the limitations of this study were discussed, as well as ways for overcoming these limitations.

3.1 Design of the Study

This study was designed as a correlational study. The study explored the relationships between teachers' CTC and the intention components of the IMBP. That is, it was examined the relationship between attitude (teachers' attitude toward change), perceived norm (school culture), self-efficacy (teachers' change self-efficacy), and teachers' CTC. While the predictor variables of this study are teachers' attitudes toward change, school culture, and teachers' change self-efficacy, the criterion variable is teachers' CTC. This study was intended as a correlational research study since it investigates the links between different variables. The correlational design is suited for this study because it enables the researcher to

investigate the interaction of two or more variables without manipulating the study's variables (Fraenkel et al., 2019; Walker, 2005).

According to Fraenkel, Wallen, and Hyun (2019), correlational analysis techniques are classified into numerous types, such as multiple regression, factor analysis, path analysis, and structural modeling. Multiple regression, on the other hand, is suited for this study since it is a technique that allows researchers to discover an association between a criterion variable and the ideal combination of two or more predictor variables.

3.2 Sampling Procedure

The target population of this study was the public-school teachers in K-12 in Ankara, Turkey, at first. As a sample collection method, it was aimed to collect data by face-to-face convenience sampling method, which is a nonrandom sampling method. The reason why convenience sampling method is preferred in the first place is that it is thought that data collection will be easier with this method. However, since it is known that this method will limit generalizability, it is aimed to collect data from each district of Ankara in order to facilitate the generalizability of this study. Schools in Ankara would be visited by organizing face-to-face visits. It was planned to visit at least three easily accessible schools in each Ankara district. However, the sample collection process was moved online after it was observed that teachers concerned about the coronavirus's contagiousness. Since data will be collected online and there is limited time to collect data, the convenience sampling method was again preferred as the data collection method and the online scale was shared with teacher groups on Instagram and Facebook. Hence, the target population was changed to Turkey by anticipating a low response rate since there would be online data collection. As a result, the sample includes teachers working in public schools at primary, secondary, and high school levels throughout Turkey.

3.3 Demographic Characteristics of the Participants

The participants of this research are public school teachers working at primary, secondary and high school levels in Turkey. The participants of this study were collected by convenience sampling method. In addition, a web-based questionnaire was used to collect data from the participants. As a result of the web-based survey collection, 4560 teachers were reached, but 3112 teachers looked at the first page of the scale and left the scale (see Appendix H). It is thought that the reason why 3112 teachers did not fill in the scale was because the completion time was too long in the announcement made on the first page of the scale. Although the remaining 1448 teachers are considered to have completed the scale, 766 teachers completed the scale without completing the majority of the scale. Moreover, forty out of the remaining 682 participants were excluded from the sample for the modification indices in CFA because CFA do not give any results about the modification indices in the presence missing values. In conclusion, 642 teachers remained who were the main participants and the sample of the study.

First of all, as seen in Table 3.1, the characteristics of the schools were determined separately from the information obtained from the participants. Accordingly, the teachers participating in the study are 142 (22.1%) elementary school teachers, 253 (39.4%) middle school teachers, and 247 (38.5%) high school teachers. While the number of teachers in the school of the teachers participating in the study varies, there are at least ten teachers and a maximum of 350 teachers in a school ($M = 43.80$, $SD = 29.06$). At the same time, the number of students in schools also varies. While there are at least 97 students in a school, this number goes up to a maximum of 2500 students ($M = 684.21$, $SD = 475.77$).

Table 3.1

<i>Characteristics of the Schools</i>						
	<i>f</i>	<i>%</i>	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
School Level						
Elementary	142	22.1				
Middle	253	39.4				
High	247	38.5				
Teacher Size			43.80	29.06	10	350
1-50	441	68.7				
51-100	183	28.5				
100<	18	2.8				
Student Size			684.21	475.77	97	2500
1-500	302	47.0				
501-1000	216	33.6				
1001<	124	19.3				

N = 642

General demographic information of the participants is given in Table 3.2. Most of the participants in the study are female (79.3%). The average age of the participating teachers from elementary school ($M = 35.0$, $SD = 6.6$), middle school ($M = 33.7$, $SD = 5.4$) and high school ($M = 34.8$, $SD = 6.1$) levels are similar among themselves, while each school level is similar to the total ($M = 34.5$, $SD = 6.0$). In addition, it was observed that the age range of teachers is between 23 and 64. It has been observed that the working years of the participating teachers in the teaching profession are mainly at the elementary school level ($M = 11.2$, $SD = 6.1$), then at the high school level ($M = 9.8$, $SD = 5.3$) and the lowest at the middle school level ($M = 10.2$, $SD = 6.3$). When the job status of the teachers was observed, it was seen that of the 642 teachers, 27 (4.2%) are charter teachers, 565 (88.0%) are teachers, and 50 (7.8%) are contract teachers. Moreover, when the teachers were asked whether they had administrative duties, it was seen that out of 642 teachers, 20 (3.1%) are principals, 70 (10.9%) are vice principals, and 552 (86.0%) teachers do

Table 3.2

Demographic Characteristics of the Participants

	Elementary School (n=142)			Middle School (n=253)			High School (n=247)			Total (N=642)		
	<i>f</i>	%	<i>M</i> <i>SD</i>	<i>f</i>	%	<i>M</i> <i>SD</i>	<i>f</i>	%	<i>M</i> <i>SD</i>	<i>f</i>	%	<i>M</i> <i>SD</i>
Gender												
Male	24	16.9		47	18.6		62	25.1		133	20.7	
Female	118	83.1		206	81.4		185	74.9		509	79.3	
Age			35.0 6.6			33.7 5.4			34.8 6.1			34.5 6.0
Educational Level												
Bachelor's Degree	121	85.2		221	87.4		177	71.7		519	80.8	
Master's Degree	18	12.7		32	12.6		67	27.1		117	18.2	
PhD	3	2.1					3	1.2		6	0.9	
Working Years			11.2 6.1			9.8 5.3			10.2 6.3			10.3 5.9
Job Status												
Charter Teacher	8	5.6		4	1.6		15	6.1		27	4.2	
Teacher	127	89.4		234	92.5		204	82.6		565	88.0	
Contract Teacher	7	4.9		15	5.9		28	11.3		50	7.8	
Admin Duty												
Principal	10	7.0		5	2.0		5	2.0		20	3.1	
Vice Principal	17	12.0		18	7.1		35	14.2		70	10.9	
None	115	81.0		230	90.9		207	83.8		552	86.0	

not have administrative duties before. In addition, when the marital status of the participants was examined, it was seen that of the 642 teachers, 103 (16.0%) are single, 23 (3.6%) are married, and 516 (80.4%) are divorced.

Further, as seen in Table 3.3, when teachers' working years are categorized in terms of experience as suggested by Bența (2013) in order to observe the distribution of teachers according to their working years clearly; novice teachers (0-5 years), teachers with medium length of service (6-10 years), and senior teachers (10+ years). In terms of school levels; (1) for elementary school teachers, 21 (14.8%) are novice teachers, 49 (34.5%) are teachers with medium length of service, and 72 (50.7%) are senior teachers, (2) for middle school teachers, 52 (20.5%) are novice teachers, 107 (42.3%) are teachers with medium length of service, and 94 (37.2%) are senior teachers, (3) for high school teachers, 62 (25.1%) are novice teachers, 87 (35.2%) are teachers with medium length of service, and 98 (39.7%) are senior teachers.

Table 3.3 Categorizing Teachers with regards to their Working Years' Experience

	Elementary School (n=142)		Middle School (n=253)		High School (n=247)		Total (N=642)	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Novice Teacher (0-5 years)	21	14.8	52	20.5	62	25.1	135	21.0
Teacher with Medium Length in Service (6-10 years)	49	34.5	107	42.3	87	35.2	243	37.9
Senior Teacher (10+ years)	72	50.7	94	37.2	98	39.7	264	41.1

Table 3.4

Teachers' Field Distribution

Field	<i>N</i>	%
Elementary School Teaching	104	16.2
English	100	15.6
Math	78	12.1
Turkish Literature	56	8.7
Turkish	54	8.4
Guidance	38	5.9
Science	31	4.8
Religion	26	4.0
Social Science	18	2.8
Chemistry	16	2.5
Biology	15	2.3
History	14	2.2
Geography	12	1.9
Technology and Design	12	1.9
Music	11	1.7
Information Technologies	10	1.6
Philosophy	10	1.6
Physics	10	1.6
Art	9	1.4
German	9	1.4
Physical Education	9	1.4

N = 642

In addition, the distribution of teachers according to their fields is given in Table 3.4. When the fields of the teachers participating in the study are examined in general, 21 different branches are seen. While the details are provided in the table, the top three areas that contributed the most to the study are as follows: teachers in the Elementary School Teaching field are 107 (16.2%), teachers in the English field are 100 (15.6%), teachers in the Math field are 78 (12.1%).

3.4 Data Collection Procedure

Before starting the data collection process, necessary permissions to use the scales were obtained from the scale developers for permission to use the Attitude Scale

(see Appendix C), for permission to use Perceived Norm Scale (see Appendix D), for permission to use Self-efficacy Scale (see Appendix E), for permission to use Commitment to Change Scale (see Appendix F). After, necessary permissions were obtained from the Middle East Technical University Human Subjects Ethics Committee to apply the scale to participants (see Appendix A). Under normal circumstances, permission from the Ministry of National Education is also required for data to be collected face to face. However, since this study was conducted online, this permission was not required; therefore, this permission was not obtained. After obtaining the necessary permissions, the researcher started data collection via Web-based software.

Because of technological advancements, conducting scales through the Internet has become extremely frequent (Fraenkel et al., 2019). Researchers increasingly use Web-based software and applications to gather scale data from their target population, especially after the coronavirus pandemic. As mentioned before, it is aimed to collect data from teachers all over Turkey, considering that the response rate of the online data collection process will be low. In support of this idea, Fraenkel and his colleagues (2019) stated the disadvantages of online data collection as "Disadvantages can include lower response rates and invalid data entry due to speedy entry facilitated by computers." (p. 362). On the other hand, online scales offer various benefits, including increased access to remote and difficult-to-reach participants, reduced expenses, faster turnaround, and mobile administration via portable devices like smartphones (Fraenkel et al., 2019). One advantage of collecting data online is that participants may reply to the scale at any moment they want, while also allowing them to fill out the scale at any free time they find during the day without interfering with their job. Another benefit, which is most scientifically valuable, is that the obtained data may be quickly transmitted to the database with the very little risk of data loss or erroneous transfer when transferring data to SPSS (Lefever et al., 2007).

The online version of the scale was generated with LimeSurvey, an online scale tool provided by Middle East Technical University to graduate students. The advantages of using LimeSurvey rather than Google Forms or SurveyMonkey are (1) the collected data can be saved on the University's online storage, (2) the University preserves participants' personal data, and (3) the University offers this service whenever it is required. While the online scale was being created, it was transferred to LimeSurvey as it was in print. The online scale comprises six parts together with the consent form and is accessed via a link provided by LimeSurvey. Furthermore, it was announced with the shared link that teachers working in public schools were needed for the study. When the participants clicked on the link shared with them, they were first greeted with a short text describing the purpose of the study, what they should do, how long it would take to complete the scale, and how the study ensures anonymity and confidentiality. They then had to approve the consent form before starting the scale. The scale was set not to start before the consent form was filled; therefore, all participants declared that they participated in the study voluntarily and approved the informed consent form (see Appendix B). Afterward, there is the section consisting of the participant's demographic information (see Appendix G). In this part, the participants answered 11 items about themselves. All items in the demographic information section, which must be essential and complete for the study, are also set to be required. Afterward, the participants completed the scale by filling in the Attitude Scale, Perceived Norm Scale, the Self-efficacy Scale, and the Commitment to Change Scale, respectively. The items in the scales are not set to be required because it is intended to provide the participants with the opportunity to leave the scale at any time, as stated in the introduction of the scale. The e-mail address of the researcher was given to the participants on the closing page of the scale, so they could ask the questions on their minds. In this way, the researcher received feedback from about 10 participants who were curious about the result of the study and wanted it to be shared with them.

The online scale was circulated through Instagram and teacher Facebook groups, and data collecting took three weeks in April 2022, which is the spring semester of

the 2021-2022 academic year. All collected data was anonymous, as shown by a particular indication in LimeSurvey (see Appendix H). Participants were able to withdraw from the scale at any time. Moreover, it was stated that 25 minutes would be sufficient for the participants to complete the scale since the total scale consisted of 57 items.

3.5 Instruments

In this study, four data collection instruments were utilized to explain teachers' CTC using the IMBP. However, before that, the teachers were required to complete a demographic information form. The first instrument is the Attitude Scale developed by Kondakçı, Zayim, and Çalışkan (2013) to measure the attitude in IMBP. The second one is the School Culture Scale developed by Terzi (2005) that is used two dimensions of it to measure the perceived norm. The third is the Readiness for Organizational Change Scale developed by Holt, Armenakis, Feild, and Harris (2007a) and adapted into Turkish by Çalışkan (2019) that is utilized to measure self-efficacy through one dimension of it. Finally, the Commitment to Change Scale was developed by Herscovitch and Meyer (2002) and adapted into Turkish by Toprak and Aydın (2015). In addition, the teachers were given an informed consent form to guarantee that their participation in the study was entirely voluntary (see Appendix B). The informed consent form also contains a brief overview of the study; therefore, teachers were aware of the content of the study before completing the scale s. Moreover, they were assured that the information gathered would be used solely for academic purposes and would not be shared with anyone else.

3.5.1 Demographic Information Form

The demographic information form (see Appendix G) which is developed by the researcher was applied to obtain the participants' personal information. The demographic information form contains questions, in order to obtain information about teachers, asking about gender, age, marital status, last school they graduated from, school level they work in, their fields, duration of experience in the teaching

profession, their status as a teacher, whether they have an administrative task they have held so far, the number of teachers in the school they work in, and the number of teachers in the school where they work in.

3.5.2 Attitude Scale

The Readiness for Change Scale developed by Kondakçı, Zayim, and Çalışkan in 2013 was used as Attitude Scale to measure teachers' attitudes towards change (attitude in the IMBP), which is one of the predictor variables of this study. As mentioned earlier, since attitude and readiness are similar concepts, there is no harm in using a readiness for change scale to measure attitude. This instrument measures readiness at an individual level because change activities are initiated and carried out by individuals within organizations. The instrument has 12 items with a 5-point Likert scale that '1' represents completely disagree while '5' represents completely agree. Furthermore, this instrument identified three readiness dimensions: cognitive readiness, emotional readiness, and intentional readiness. Cognitive readiness is measured by items 1, 2, 4, and 5. Emotional readiness is measured by items 3, 7, and 10. Intentional readiness is measured by items 6, 8, 9, 11, and 12. Moreover, items 3, 7, and 10 are the reversed items. The final CFA model showed good fit with the significant chi-square value, while the RMSEA, CFI, and NNFI indices also improved ($\chi^2(49) = 206.403$, RMSEA = .073, CFI = .966, NNFI = .954). It was determined that the acquired values are acceptable in terms of the threshold values indicated by past scholars, which are RMSEA values $\leq .08$ (Browne & Cudeck, 1993), CFI values $\geq .90$ (Hoyle et al., 1995), NNFI values $\geq .90$ (Brown, 2015). The Cronbach alpha coefficients for this instrument are provided by the scale developers as .90, .87, and .75, respectively, for intentional, cognitive, and emotional RFC dimensions. Hence, the Cronbach alpha coefficients show high reliability because they are closer to 1. Therefore, this instrument shows that it is a valid and reliable scale in terms of measuring teachers' attitudes towards change. That is why all dimensions of this scale were used in the study, and sample items are given in Table 3.5. At the beginning of the scale, teachers were instructed to think about the change they experienced during the coronavirus pandemic.

Table 3.5*Attitude Scale Sample Items*

Dimensions	Sample Items
Cognitive	• The change will help me to do my work better. • I desire to see change efforts in my school.
Emotional	• Change discourages me to work. • Change generally discomforts me.
Intentional	• I want to devote myself to the change process. • Change contributes to the elimination of deficiencies in my school.

3.5.3 Perceived Norm Scale

Perceived norm, another predictor variable of this study, was measured with two dimensions of the School Culture Scale that is called as Perceived Norm Scale in this study. The School Culture Scale developed by Terzi in 2005 and originally consisted of 4 dimensions and 29 items with a 5-point Likert scale (1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always). These four dimensions are support, bureaucratic, success, and task. For this study, the researcher chose the support and success dimensions because these dimensions are functional in the study. On the other hand, bureaucratic and task cultures are irrelevant to the changing environment. These two dimensions, support, and success, consist of 12 items of the original scale. Support culture is measured by items 2, 3, 4, 6, 8, 10, 11. Success culture is measured by items 1, 5, 7, 9, 12. Terzi (2005) stated that the exploratory factor analysis of the School Culture Scale is appropriate based on the observed results of the KMO (Kaiser-Meyer-Olkin Measure of Sampling Adequacy) and Bartlett Test. Afterward, the instrument's reliability was calculated separately for

each dimension, and the Cronbach Alpha coefficients of the support and success dimensions were found to be .88 and .82, respectively that are provided by the scale developer. As a result, this instrument demonstrates that it is a valid and reliable scale for evaluating the school culture perceived by teachers during change. Additionally, this study used two dimensions of this scale, and sample items are presented in Table 3.6. Furthermore, teachers were instructed at the start of the scale to ponder on the change they encountered during the coronavirus pandemic.

Table 3.6

Perceived Norm Scale Sample Items

Dimensions	Sample Items
Support	• The feeling of one for all and all for one prevails. • All kinds of opportunities for professional development are provided.
Success	• Successful teachers and students are rewarded. • Everyone gets rewarded for doing their job well.

3.5.4 Self-efficacy Scale

Teachers' self-efficacy during change (self-efficacy in the IMBP), which is another predictor variable of this study, was measured by the "Change Efficacy" dimension of the Readiness for Organizational Change Scale, which Holt, Armenakis, Feild, and Harris (2007a) developed and adapted into Turkish by Çalışkan (2019) that is called as the self-efficacy scale in this study. The adapted version of the instrument has four dimensions and 25 items with a 5-point Likert scale that '1' is for strongly disagree, while '5' is for strongly agree. Individual readiness for organizational change is measured on four dimensions: appropriateness, management support, personal valence, and change efficacy. In this study, since the change self-efficacy

of teachers is measured, it is decided by the researcher that only the change efficacy dimension is used. The change efficacy dimension used in the study is measured with six items. The second item of the change efficacy dimension is a reversed item.

As a result of the CFA, on the basis of RMSEA, CFI, TLI, and SRMR, the model demonstrated a good fit to the data ($\chi^2(29) = 79.02$, RMSEA = .07, CFI = .97, TLI = .95, SRMR = .05). It is decided that these obtained values are acceptable according to the threshold values stated by some scholars which are RMSEA values $\leq .08$ (Browne & Cudeck, 1993), CFI values $\geq .90$ (Hoyle et al., 1995), TLI values $\geq .90$ (Hu & Bentler, 1999), and SRMR values $\leq .08$ (Hu & Bentler, 1999). Following that, the instrument's reliability was computed independently for each dimension, and the Cronbach Alpha coefficient of the change efficacy dimension was determined to be .71 by the scale developer. Nunnally and Bernstein (1994) state that the threshold for reliability is .70; hence, the Cronbach Alpha coefficient of the change efficacy dimension fulfills the desired value. As a consequence, this instrument proves to be a valid and reliable scale for assessing teachers' self-efficacy during change. This study utilized one dimension of this scale, and sample items are included in Table 3.7. Further, at the beginning of the scale, teachers were suggested to focus on the change as they went through during the coronavirus pandemic.

Table 3.7

Self-efficacy Scale Sample Items

Dimension	Sample Items
Change Efficacy	• If I put my mind to it, I can learn everything that will be necessary when this change is implemented. • I have the necessary skills to make this change work. • When we implement this change, I think I will easily overcome it.

3.5.5 Commitment to Change Scale

The criterion variable of this study is teachers' CTC (intention in the IMBP), as measured by the Commitment to Change Scale created by Herscovitch and Meyer (2002) and adopted into Turkish by Toprak and Aydın (2015). The adopted version of the instrument contains three dimensions and 16 items with a 5-point Likert scale, with '1' representing strongly disagree and '5' representing strongly agree. The dimensions of the CTC instrument are affective (1-6 items), normative (7-11 items), and continuance (12-16 items). The reversed items of this scale are 8, 9, 10, 11, 15, and 16. For the construct validity of the instrument, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were performed. The EFA results show that the data set of this CTC scale is suitable for factor analysis (KMO = .951, Bartlett Test = .000) and also that the instrument includes three dimensions. As a consequence of the CFA, the model revealed a good fit to the data based on RMSEA, CFI, NNFI, and SRMR ($\chi^2(153) = 405.45$, RMSEA = .07, CFI = .90, NNFI = .93, SRMR = .08). The Cronbach alpha coefficients for this instrument are provided by the scale developers as .85, .77, and .75 respectively for affective, normative, and continuance CTC dimensions. Consequently, this instrument reveals that it is a valid and reliable scale for measuring teachers' CTC. Besides, all dimensions of this scale were utilized in this study, and sample items are listed in Table 3.8. Moreover, teachers were instructed at the beginning of the scale to consider the change as they witnessed during the coronavirus pandemic.

Table 3.8*Commitment to Change Scale Sample Items*

Dimensions	Sample Items
Affective	• I believe this change is valuable. • Thanks to this change, everything got better.
Normative	• I consider it my duty to work for this change. • If I oppose this change, I will feel guilty.
Continuance	• I have no choice but to comply with this change. • It would be risky for me to speak out against this change.

3.6 Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) is a statistical procedure used to determine if data fits a predicted measurement model. Even though the overall scale has four scales, three CFA was used separately in the study because self-efficacy scale has only one dimension and it did not applied CFA for this scale. Therefore, 40 items are evaluated in CFA when 6 items of self-efficacy scale did not take into consideration. Before using the CFA, all assumptions were checked. CFA's assumptions include missing data and sample size, univariate normality, univariate outliers, linearity, homoscedasticity, and multicollinearity (Kline, 2016). IBM SPSS AMOS 26.0 Software Package was used to apply CFA once all assumptions were verified. According to Hu and Bentler (1999), at least two indices from TLI, IFI, RNI, CFI, GH, Mc, SRMR, and RMSEA must be provided in order for a sufficient assessment of model fit. Fit indexes such as Root Mean Square of Error of Approximation (RMSEA), The Bentler Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Standardized Root Mean Square Residual (SRMR) were checked with model chi-square (χ^2) in order to accurately understand the CFA findings.

3.6.1 Assumption Checks for Confirmatory Factor Analysis of the Scale

Before performing CFA, the necessary assumptions were checked. Considering the missing data assumption, the data set should be rechecked to determine whether there are missing data or incorrect values. There are absolutely no incorrect values in the data set because the data collected through LimeSurvey was copied directly to the AMOS program in the same way. Forty missing data were removed from the data set in order for the modification indices to work. Moreover, considering the sample size assumption, the CFA requires at least 200 participants to be carried out (Kline, 2016). Although missing values were removed, a sufficient number of participants ($N = 642$) took part in this study to fulfill this assumption.

According to Kline (2016), to examine the assumption of univariate normality, it is checked the inspection of skewness and kurtosis values, and tests of normality (Kolmogorov-Smirnov and Shapiro-Wilk), histograms, and Q-Q plots. According to George and Mallery (2010), if the skewness and kurtosis values vary between -2.0 and +2.0, that distribution is considered as normal. According to the results of the skewness and kurtosis values of this data set, the skewness values of all 40 items are within the recommended value range. However, looking at the kurtosis values, it was seen that 2 out of 40 items were not in the recommended value range, which are attitude scale item 9 and 11. The Shapiro-Wilk test, frequently used in normality tests, was observed for the tests of normality. However, it was observed that the distribution for the items of the entire scale was far from normal. To illustrate, for item 1 (Attitude scale item 1), a Shapiro-Wilk test showed a significant departure from normality, $W(642) = 0.77, p < .001$. According to the central limit theorem, the sum of a sufficiently large number (more than 30) of independent, uniformly distributed random variables has an approximately normal distribution (*Central Limit Theorem*, 2008). Since this study has more than 30 participants ($N = 642$), it shows the normal distribution in compliance with the central limit theorem. If there are no assumptions about the population distribution in small-volume sampling, it cannot be stated a confidence interval for the population mean. In order to overcome

such problems, “n-volume sampling” can be done on the gathered data, the value of the relevant statistic can be observed many times and an idea about its distribution can be obtained (Byrne, 2010). Therefore, the bootstrapping method is used. To achieve this, 1000 bootstrapped samples with a 95% confidence interval were used to test the model.

To identify univariate outliers, standardized z-scores were checked. Tabachnick and Fidell (2013) defined outliers as variables that exceeded the recommended value of 3.29 ($p < .001$, two-tailed test). Three outliers were found to be outside of the recommended value range. In order to evaluate how much the determined outliers impact the study, two distinct data sets were generated: the version including the outliers and the version excluding the outliers. CFA was utilized for each data set, and the results were analyzed and compared. There was no significant difference observed between the data sets; therefore, the outliers were not removed and remained in the data set.

The assumptions of linearity and homoscedasticity were evaluated using bivariate scatter plots. Scatter plots revealed that the plots converge on the fit line; therefore, bivariate relationships approached linearity and homoscedasticity, indicating that these assumptions were validated. Besides, for multicollinearity of the variables, bivariate correlations are evaluated, which is followed by squared multiple correlations (R^2), tolerances ($1 - R^2$), and variance inflation factors (VIF) [$1 / (1 - R^2)$] (Kline, 2016). The required values for squared multiple correlations should not exceed .90 (Tabachnick & Fidell, 2013). Tolerance has a cut-off value of 0.10, whereas VIF has a cut-off value of 4.0. That is, Tolerance should be 0.10 higher (Pallant, 2016), and VIF should be less than 4.0 (Tabachnick & Fidell, 2013). First, bivariate correlations were tested to see the multicollinearity of the variables. No correlation was greater than .90. Furthermore, the tolerance and VIF values were tested. Tolerance values ranged from .75 to .95., while VIF values ranged from 1.06 to 1.33. As a consequence, the assumption of multicollinearity was not violated.

3.6.2 Results for Confirmatory Factor Analysis of the Scale

Three CFA was applied for the overall scale, except for self-efficacy scale part. Hence, 40 variables were taken into consideration. The cut-off values of the fit indexes are reviewed to comprehend the findings. According to Kline (2016), if the χ^2/df ratio is less than 3, the model shows a good fit, and if it is less than 5, the model has a mediocre fit. Since the χ^2 value will increase as the number of samples increases, it cannot be expected that the χ^2/df ratio will be below 3 in studies with a high sample number. Therefore, values below 5 are considered as a good fit in studies with high sample size, such as this study. In addition to that, a good fit can be defined as RMSEA less than .05, which shows a good fit, and RMSEA less than .08, which indicates an acceptable fit (Browne & Cudeck, 1993). RMSEA values between .08 and .10 indicate mediocre fit, while values above .10 indicate poor fit (MacCallum et al., 1996). Furthermore, CFI and TLI values should be in the range from 0 to 1, with .95 showing good fit and .90 indicating acceptable fit (Hu & Bentler, 1999; Hoyle et al., 1995). Considering SRMR values, an acceptable fit should be less than .10 (Kline, 2016), while a good fit should be less than .08 (Hu & Bentler, 1999).

First of all, the attitude scale was tested that has 12 items. The initial CFA (CFA-1) results demonstrated a model with poor fit ($\chi^2/df = 7.51$, $p < .05$, RMSEA = .11, CFI = .92, TLI = .90 and SRMR = .05) which is seen in Table 3.9 as attitude CFA-1. To enhance the poor fit, as the recommendation of Arbuckle and Wothke (1999), after controlling for the modification indices, two error covariances were included among the errors of the items; item 1 – item 2 (e1-e2) and item 10 – item 11 (e10-e11) as shown in Figure 3.1. After every error covariance was included, the model was evaluated repeatedly to reach a good fit. After the final CFA (Attitude CFA-2), the final model demonstrated a mediocre fit with better fit indices by the insertion of two error covariance ($\chi^2/df = 4.31$, $p < .001$, RMSEA = .07, CFI = .96, TLI = .95, and SRMR = .04). Moreover, CFI, TLI, and SRMR values displayed good fit in the final model. Also, RMSEA value showed acceptable fit in the final model.

Table 3.9

CFA Fit Index Comparison Table

Fit Indexes	Criteria	Cut-off Values	Attitude CFA-1	Attitude CFA-2	Perceived Norm CFA-1	Perceived Norm CFA-2	Commitment To Change CFA-1	Commitment To Change CFA-2
χ^2/df		≤ 3.0 good fit ≤ 5.0 mediocre fit	7.51	4.31	7.70	4.54	8.52	3.73
RMSEA	0 = good fit	≤ 0.05 good fit	.11	.07	.11	.07	.11	.07
	1 = no fit	≤ 0.08 acceptable fit ≤ 0.10 mediocre fit > 0.10 poor fit						
CFI	0 = no fit	≥ 0.90 acceptable fit	.92	.96	.93	.96	.88	.96
	1 = good fit	≥ 0.95 good fit						
TLI	0 = no fit	≥ 0.90 acceptable fit	.90	.95	.91	.95	.86	.95
	1 = good fit	≥ 0.95 good fit						
SRMR	0 = good fit	≤ 0.08 good fit	.05	.04	.05	.04	.17	.10
	1 = no fit	≤ 0.10 acceptable fit						

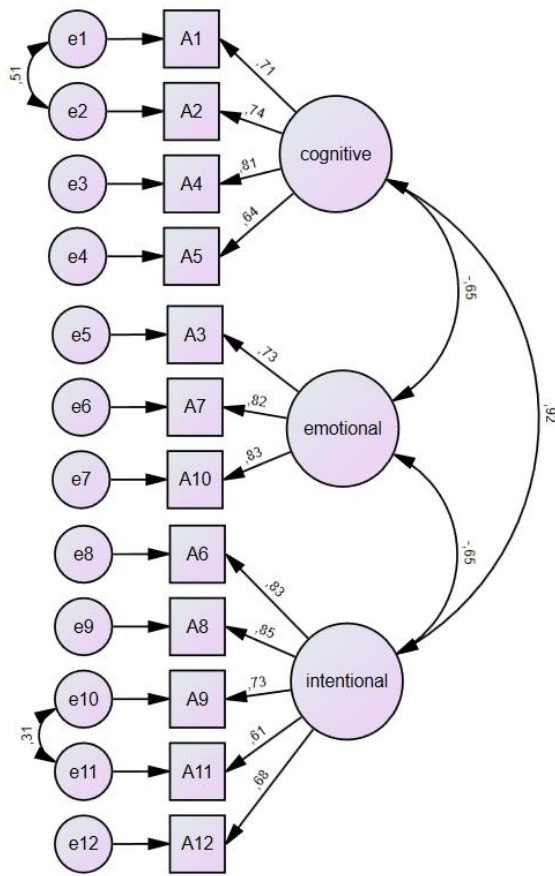


Figure 3.1 Path Diagram of the Attitude Scale

Secondly, the perceived norm scale was tested that has 12 items. The initial CFA (CFA-1) results demonstrated a model with poor fit ($\chi^2/df = 7.70$, $p < .05$, RMSEA = .11, CFI = .93, TLI = .91 and SRMR = .05) which is seen in Table 3.9 as Perceived Norm CFA-1. Following the Arbuckle and Wothke (1999) recommendations, modification indices were controlled, and three error covariances were inserted between item errors to improve the poor fit; item 6 – item 7 (e6-e7), item 7 – item 12 (e7-e12), and item 10 – item 11 (e10-e11) as shown in Figure 3.2. After every error covariance was included, the model was evaluated repeatedly to reach a good fit. After the final CFA (Perceived Norm CFA-2), the final model demonstrated a mediocre fit with better fit indices by the insertion of two error covariance ($\chi^2/df = 4.54$, $p < .001$, RMSEA = .07, CFI = .96, TLI = .95, and SRMR = .04). Moreover,

CFI, TLI, and SRMR values displayed good fit in the final model. Also, RMSEA value showed acceptable fit in the final model.

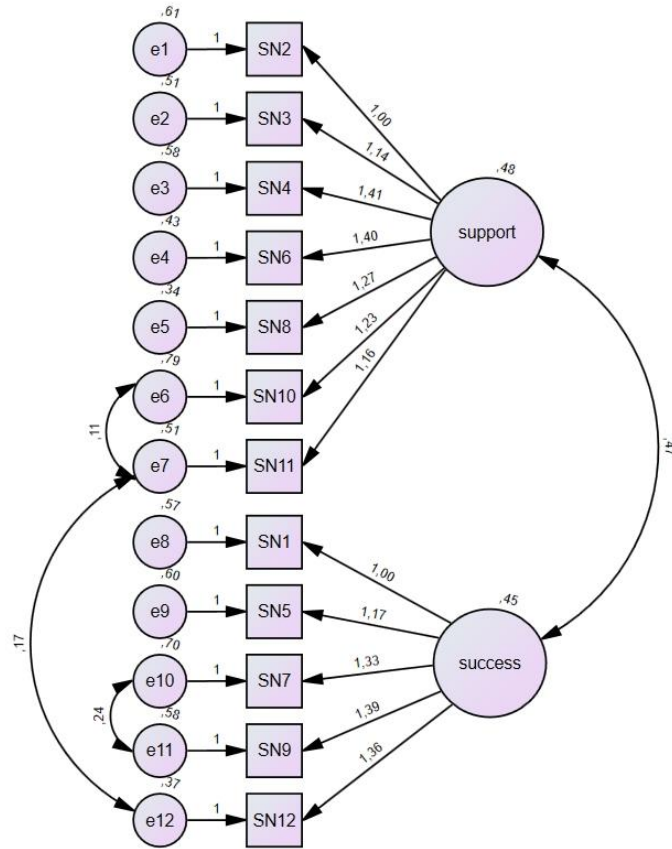


Figure 3.2 Path Diagram of the Perceived Norm Scale

Finally, the commitment to change scale was tested that has 12 items. The initial CFA (CFA-1) results demonstrated a model with poor fit ($\chi^2/df = 8.52$, $p < .05$, $RMSEA = .11$, $CFI = .88$, $TLI = .86$ and $SRMR = .17$) which is seen in Table 3.9 as Commitment to Change CFA-1. After modification indices were controlled, as the recommendation of Arbuckle and Wothke (1999), error covariances added between item errors in order to improve the poor fit.; item 1 – item 2 (e1-e2), item 7 – item 8 (e7-e8), and item 7 – item 9 (e7-e9) as shown in Figure 3.3. After every error covariance was included, the model was evaluated repeatedly to reach a good fit. After the final CFA (Commitment to Change CFA-2), the final model demonstrated a mediocre fit with better fit indices by the insertion of two error

covariance ($\chi^2/df = 3.73$, $p < .001$, RMSEA = .07, CFI = .96, TLI = .95, and SRMR = .10). Moreover, CFI and TLI values demonstrated good fit in the final model. Also, RMSEA and SRMR value displayed acceptable fit in the final model.

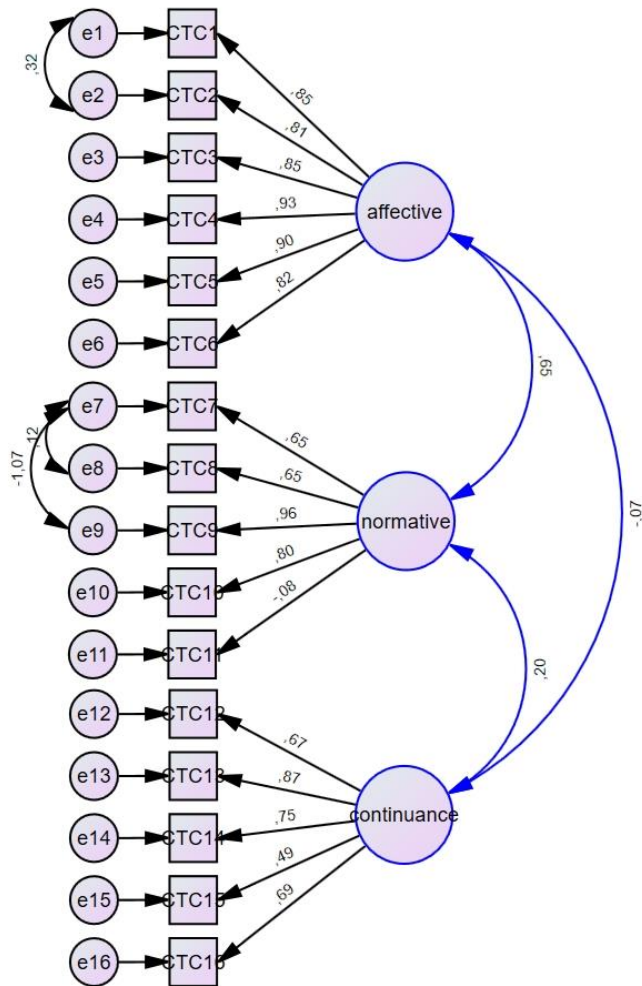


Figure 3.3 Path Diagram of the Commitment to Change Scale

Besides, since self-efficacy scale includes one dimension, CFA cannot be applied to this scale.

3.7 Data Analysis

In the analysis process, the researcher did the missing data check and data cleaning. Data from 40 participants were omitted from the study so that modification indices results could be obtained to error covariances in CFA. Afterward, both descriptive statistics and inferential statistics were used for data analysis. Data analysis was done with the help of IBM SPSS Statistics 28.0.0, which is the latest version. Participants' demographic information such as gender, age, marital status, education level, school level they work, their field, working years (experience), status as a teacher, whether they have taken an administrative duty, the number of teachers in their school, and the number of students in their school were computed using descriptive statistics (frequency, mean, and standard deviations). Before the primary analyses were conducted, Confirmatory Factor Analysis (CFA) was conducted to determine the factor structure of the scale applied to the participants via IBM SPSS AMOS 26.0 Software Package, the most recent version. Three hierarchical regression analysis was used in the study to examine how three dimensions of the criterion variable (commitment to change) can be anticipated by three predictor variables (attitude, perceived norms, and self-efficacy). Consequently, in order to avoid Type I error rate, the level of significance (α) was rearranged and established as .017, which is critical, dividing the alpha level by three ($.05/3 = .017$), which is a new significance criterion level (Field, 2017).

3.8 Limitation of the Study

This study has a few limitations regarding sampling, data collection procedure, and subject characteristics. First of all, considering the sampling method, the sampling method of the study is the convenience sampling method which is a nonrandom sampling method. In the study, data were collected by conducting an online scale. The participants of this study were composed of people who reached the links shared by the researcher on the social media pages that the target population might encounter. For this reason, people who wanted to participate in the study took part voluntarily. However, teachers who did not have access to the pages where the scale

link was shared could not participate because they did not see the scale link. Therefore, coverage bias may have happened due to the exclusion of some participants who did not come across the scale link. Eventually, findings from the sample of this study may not be appropriate or valid for other samples. Therefore, the sample of this study should not be generalized to the population.

Secondly, in the data collection procedure, although the participants were told that public school teachers are the target population in the announcement of the shared link, there may be private school teachers participating in the study who did not consider this announcement. Besides, since the number of scale items in this study was 57, it was decided by the researcher that the completion time would be 25 minutes. However, the reason why 766 teachers completed the scale but left the majority of the items unanswered was thought to be the long duration of the scale. This raises the possibility that the teachers, who filled out the scale completely, got bored and filled in the items quickly without reading them. This situation not only reduces the validity of the data obtained but may also cause bias in the results of the study.

Besides, while running CFA, most of the error covariances are included between items in continuance dimension. Standardized regression weights were controlled after observing a lot of error covariances. The standardized regression weights for the items in the continuance dimension were much lower than the minimum score of 0.40 suggested by Ford, MacCallum, and Tait (1986). As a result of this, it is recommended to exclude values below 0.40 from the study. However, no elimination was performed, as CTC scale has been used previously and has proven its validity and reliability. Therefore, the CFA result shows mediocre fit rather than good fit.

Finally, subject characteristics may be an internal validity threat for this study, as teachers' ages ranged between 23 and 64 years and years of working ranged from 1 to 42 years. Such differences among the participants can be considered as a limitation of the study (Fraenkel et al., 2019).

CHAPTER 4

RESULTS

This chapter provides an overview of this study's findings as well as the statistical analyses used to get at these findings. Preliminary analyses, including as normality, missing value, and outlier analyses, were first presented. Following that, descriptive statistics and bivariate correlations between variables were provided. Subsequently, multiple regression results for the criterion variable and the findings of the model evaluation were presented. The study's significant results were reported at the conclusion of the chapter.

4.1 Descriptive Statistics and Bivariate Correlations

For the continuous variables in this study, means, standard deviations, and bivariate correlations were evaluated. Continuous variables of this study include demographic variables, predictor variables, and criterion variables; (1) demographic variables which are teachers' age, teachers' working years (experience), teacher size in a school, and student size in a school; (2) predictor variables which are cognitive RFC, emotional RFC, intentional RFC, support culture, success culture, and change efficacy; (3) criterion variables, which are affective CTC, normative CTC, and continuance CTC. Table 4.1 displays the means and standard deviations of the continuous variables examined in this study. As shown in the table, the average age of teachers is 34 ($M = 34.45$, $SD = 5.98$). Teachers in the sample approximately had ten years of working years (experience) ($M = 10.26$, $SD = 5.86$). While the average teacher size was 43 ($M = 43.80$, $SD = 29.07$), the average student size was 684 ($M = 684.21$, $SD = 475.77$). The cognitive dimension ($M = 4.09$, $SD = .83$) had the

highest mean among the RFC dimensions. Then, intentional RFC ($M = 3.99$, $SD = .76$) and emotional RFC ($M = 3.98$, $SD = .97$) followed, with a small margin, respectively. For the dimensions of the school culture, mean of the success culture ($M = 3.52$, $SD = .92$) is higher than mean of the support culture ($M = 3.39$, $SD = .90$). In terms of the change efficacy, its mean score is 4.18 ($M = 4.18$, $SD = .63$). The mean scores for affective CTC ($M = 3.69$, $SD = 1.05$), normative CTC ($M = 2.95$, $SD = .69$), and continuance CTC ($M = 2.86$, $SD = .51$) can be ranked from highest to lowest among the dimensions of CTC.

Table 4.1

<i>Mean and Standard Deviation of the Variables of the Study</i>		
	<i>M</i>	<i>SD</i>
1.Age	34.45	5.98
2.Working Years	10.26	5.86
3.Teacher Size	43.80	29.07
4.Student Size	684.21	475.77
5.Cognitive RFC	4.09	.83
6.Emotional RFC	3.98	.97
7.Intentional RFC	3.99	.76
8.Support Culture	3.39	.90
9.Success Culture	3.52	.92
10.Change Efficacy	4.18	.63
11.Affective CTC	3.69	1.05
12.Normative CTC	2.95	.69
13.Continuance CTC	2.86	.51

Bivariate correlations between continuous variables are shown in Table 4.2. The asterisk behind the correlation indicated the significance level. Before interpreting the results of the analysis, it should be known that the cut-off values utilized by Field (2017) were used to analyze the correlation between the variables. As a result, Pearson correlation coefficients of $\pm .10$, $\pm .30$, and $\pm .50$ were regarded as low, moderate, and strong, respectively with respect to the effect size. Moreover, no

correlation value exceeded .90, which is the critical value suggested by Field (2017), except for a correlation value between teachers' age and their working years. Considering demographic variables, there were significant correlations between teachers' working years (experience), teacher size, and student size. While teacher and student size showed a significant correlation with a strong effect, the rest showed a significant correlation with a low effect. Besides, student size had no significant correlation with either predictor variables or criterion variables.

Taking into account the predictor variables, firstly, RFC dimensions, which are cognitive, emotional, and intentional, demonstrated a significant positive correlation with a strong effect among them. Secondly, school culture dimensions, support and success, displayed a significant positive correlation with a strong effect. Furthermore, both support and success culture were positively and significantly correlated with cognitive and intentional RFC with a low effect. Moreover, support culture was positively and significantly correlated with teachers' age and teacher size, while success culture demonstrated a significant positive correlation with teachers' age and working years. Finally, change efficacy was correlated positively and significantly with support culture with a low effect; with cognitive and emotional RFC with a moderate effect; and with intentional RFC with a strong effect.

Evaluating the criterion variables, which are affective CTC, normative CTC, and continuance CTC, there was no correlation between normative and continuance CTC. There was a significant positive correlation between affective and normative CTC with a moderate effect. There was a significant negative correlation with a low effect between affective and continuance CTC. Besides, for affective CTC, there was a significant positive correlation with support culture with a low effect. Moreover, there was a significant positive correlation between affective CTC and emotional RFC with a moderate effect. Affective CTC had a significant positive correlation with cognitive and intentional RFC with a strong effect. There was a significant negative correlation with support and success culture for normative CTC.

Additionally, there was a significant positive correlation between normative CTC and emotional RFC. Furthermore, normative CTC correlated significantly and positively with cognitive and intentional RFC with a low effect. For continuance CTC, there was a significant negative correlation with cognitive, emotional, and intentional RFC with a low effect.

Table 4.2

Bivariate Correlations of the Variables of the Study

	1	2	3	4	5	6	7	8	9	10	11	12	13
1.Age	1	.92**	.19**	.16**	.05	.06	.06	.09*	.10**	.06	.01	.00	.03
2.Working Years		1	.20**	.17**	.05	.06	.06	.07	.08*	.07	-.01	.01	.03
3.Teacher Size			1	.74**	.05	.07	.02	.09*	.07	.01	.04	-.00	-.02
4.Student Size				1	.00	.03	-.02	.06	.03	-.01	.02	.05	.00
5.Cognitive RFC					1	.56**	.77**	.20**	.16**	.44**	.59**	.18**	-.13**
6.Emotional RFC						1	.55**	-.03	-.04	.43**	.41**	.08*	-.18**
7.Intention RFC							1	.16**	.12**	.53**	.55**	.14**	-.11**
8.Support Culture								1	.89**	.10**	.13**	-.08*	-.02
9.Success Culture									1	.07	.08	-.09*	-.03
10.Change Efficacy										1	.39**	.05	-.07
11.Affective CTC											1	.37**	-.16**
12.Normative CTC												1	.03
13.Continuance CTC													1

* $p < .05$

** $p < .01$

4.2 Hierarchical Multiple Regression Analysis

Multiple regression analysis is used to determine whether associations exist between the variables of this study. The hierarchical multiple regression is used in this study, one of the types of multiple regression analysis. In this study, the criterion variable is the commitment to change (CTC), which is classified as affective CTC, normative CTC, and continuance CTC. All of the other variables are the predictor variables (e.g., demographic variables, RFC dimensions, school culture dimensions, change efficacy). The researcher ranks the predictors in hierarchical multiple regression before analyzing their contributions to the outcome variable prediction (Tabachnick & Fidell, 2013). Through the use of hierarchical multiple regression analysis, the unique contribution of each block of the variables can be observed by adding step by step cumulatively (Pallant, 2016).

The potential predictors of CTC are separated into five blocks using hierarchical multiple regression. Block 1 covers the background variables of the schools, including the school level and teacher size. The variables in Block 2 are the demographic variables of the participants, which are gender, and working year. Block 3, which is RFC dimensions contain the following variables: cognitive, emotional, and intentional. The variables in Block 4, which is school culture dimensions involve support culture and success culture. Change efficacy is the only variable in Block 5. As outcome variables, all of these predictor variables anticipated three different dimensions of CTC. Hence, for all outcome variables, separate hierarchical multiple regression analyses were conducted; affective CTC, normative CTC, and continuance CTC, respectively. Due to the fact that the study includes more than one hierarchical multiple regression analysis, Bonferroni correction is needed in this study. Bonferroni correction is an arrangement of p values, also known as the significance level, when various dependent or independent statistical tests are run concurrently on a single data set. In order to determine the Bonferroni correction, the critical significance level of .05 is regulated by dividing the number of statistical tests conducted. Thus, since three separate hierarchical multiple regression analysis was performed, Bonferroni correction was used, and the significance level was set at .017 (.05/3) (Armstrong, 2014).

Before analyzing the data, dummy coding was performed for hierarchical multiple regression analysis. According to Hair, Black, Babin, and Anderson (2018), the dummy coding is an "Independent variable used to account for the effect that different levels of a nonmetric variable have in predicting the dependent variable." (p.261). Dummy coding is used to establish a reference category. For any predictor variable with " L " categories, it is generated " $L - 1$ " dummy variables (Cohen et al., 2013). Dummy coding was used in the study since the trichotomous school level variable was categorical. Elementary, middle, and high school are the three categories of the school level variable. In the first dummy coding, high school was utilized as a reference category ($HS = 0$). In the second dummy coding, for the gender category, females were given "0," and males were given "1" ($F = 0, M = 1$).

Therefore, dummy school level variable and dummy gender variable were used while performing the analyses.

4.2.1 Assumptions of Hierarchical Multiple Regression Analysis

Prior to conducting the hierarchical multiple regression analyses, the assumptions such as normality, homoscedasticity and linearity of the residuals, independence of errors, absence of multicollinearity, and influential observations were tested. The cut-off values used to test the assumptions are the same for each analysis.

4.2.1.1 Assumption Checks for “Affective” Dimension of Commitment to Change

In order to check for assumptions in the study, analyses were conducted for the "affective," which is the outcome variable and the first dimension of CTC; (1) to analyze normality, that is, the absence of univariate outliers, the histogram, and P-P plot were examined, (2) to evaluate homoscedasticity and linearity of the residuals, scatter plot was examined, (3) to examine the independence of errors, Durbin and Watson's value was observed, (4) to assess the absence of multicollinearity, bivariate correlations, Tolerance, and VIF values were examined, and (5) to investigate multivariate outliers, Mahalanobis Distance, Cook's Distance, Leverage Value, and DFBeta values, which are influential observations, were examined. First, the assumption of residual normality was evaluated. The histogram and P-P plot were used to determine if the data had a normal distribution. It is recommended to look at the histogram to verify the normality (Tabachnick & Fidell, 2013). As a result, a normal distribution of residuals in the histogram was anticipated. According to Figure 4.1, it was observed that the residuals are normally distributed.

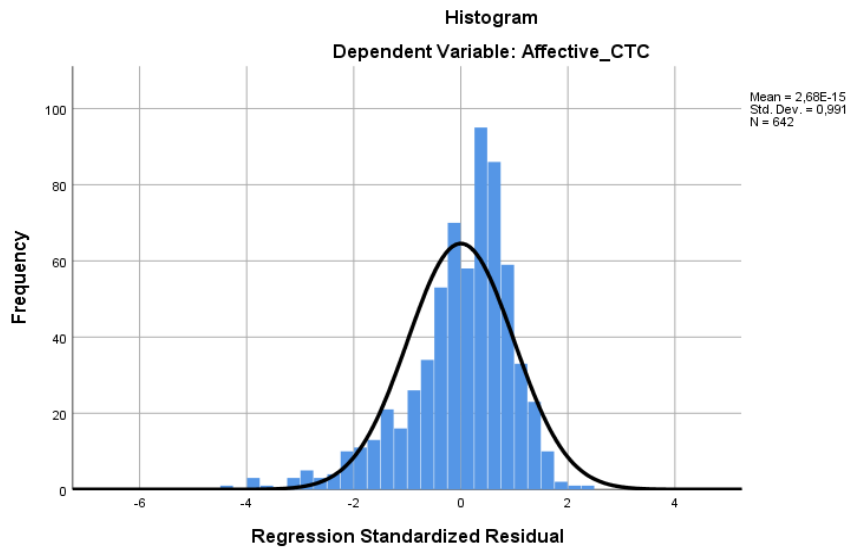


Figure 4.1 Histogram for “affective” dimension

A P-P plot was also used to test for normality. As shown in Figure 4.2, the P-P plot was provided for residual normality. For the P-P plot, cases must be distributed along the line without any significant deviation (Hair et al., 2018). As observed in Figure 4.2, although cases did not cross the line frequently, no significant deviations were observed. In conclusion, the data were considered to be distributed normally in consequence of visual inspection.

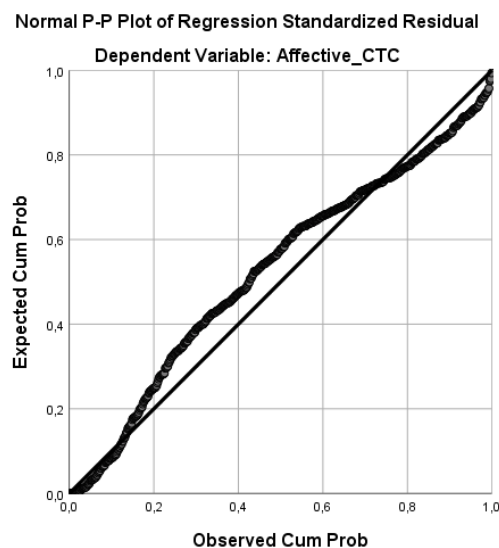


Figure 4.2 P-P Plot for “affective” dimension

After the normality assumption was met, scatter plots were examined to confirm the homoscedasticity and linearity of the residuals' assumption. Tabachnick and Fidell (2013) state that in the case of nonlinearity, the scatter plot will be curved rather than rectangular. Additionally, it is seen that the scatter plot has an oval shape when the variables are normally distributed and linearly connected. As illustrated in Figure 4.3, when the assumptions of the residuals are checked, a precise oval-shaped scatter plot was not observed in this analysis. Hence, this assumption slightly deviated because it appeared to be a little deviation in the scatter plot, and yet this analysis is robust against them due to the large sample size (Field, 2017). Furthermore, for homoscedasticity, there must be no particular pattern in the predicted value and residual distribution plots (Astivia & Zumbo, 2019). As seen in the figure below, it was observed that no error had formed a pattern.; therefore, the data was not heteroscedastic. As a result, it was considered that this assumption was satisfied.

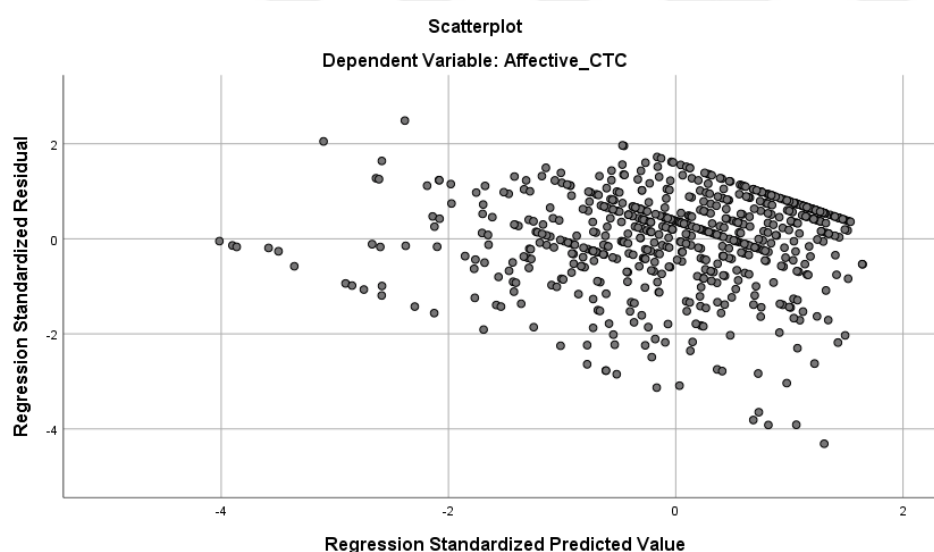


Figure 4.3 *Scatter Plot for “affective” dimension*

Additionally, Durbin and Watson's value was used to validate the assumption of the independence of errors. According to Durbin and Watson's cut-off value requirements for the independence of errors, numbers more than 1 and less than 3 are acceptable to meet the assumption (Field, 2017). The residual independence

assumption was evaluated in this respect, and it was discovered that Durbin and Watson's value was 1.809, which is between 1 and 3. As a result, the assumption was fulfilled.

In order to check multicollinearity assumption, bivariate correlations, Tolerance, and Variance Inflation Factor (VIF) values were examined. Firstly, for bivariate correlations, Tabachnick and Fidell (2013) stated that statistical problems caused by singularity and multicollinearity have been identified with correlation coefficients of .90 and above. Considering the bivariate correlation coefficients between the predictor variables of this study, the correlations of the statistically significant range of values are .08 and .89. By observing the correlation matrix table (Table 4.2), the most robust relationship is between support culture and success culture ($r = .89$). The second highest relationship is between cognitive RFC and intentional RFC ($r = .77$). Therefore, the correlation between support culture and success culture is the only value close to the cut-off value. Although the correlation between support and success culture was very close to the cut-off value, it was not higher than the cut-off value. Secondly, for Tolerance ($1/VIF$), Hair and his colleagues (2018) stated that The Tolerance value must be greater than .10, and all results meet the recommended value, as seen in Table 4.3. Finally, for VIF, Hair and his colleagues (2018) suggested that the VIF value should be less than 4. However, according to Menard (2001), 5 or less for VIF value would not be a problem for the multicollinearity assumption. As illustrated in Table 4.3, VIF values range between 1.02 and 4.90. Consequently, there was no violation of the multicollinearity assumption.

Table 4.3*Collinearity Statistics*

Variables	Tolerance	VIF
Elementary vs High	.81	1.24
Middle vs High	.81	1.24
Teacher Size	.96	1.04
Gender	.98	1.02
Working Years	.95	1.05
Cognitive RFC	.37	2.74
Emotional RFC	.61	1.65
Intentional RFC	.35	2.87
Support Culture	.20	4.90
Success Culture	.21	4.78
Change Efficacy	.68	1.46

a. Dependent Variable: Affective CTC

Multivariate outlier is the final assumption to be assessed for hierarchical regression. In order to identify multivariate outliers, it is examined four values, namely Mahalanobis Distance, Cook's Distance, Leverage Value, and DFBeta, were examined, respectively. To investigate this assumption, some results of these four values should be evaluated, such as the extreme and critical values shown in Table 4.4.

Table 4.4*Extreme Values*

Criteria	Critical Value	Case Number	Highest Value
Mahalanobis Distance	31.26	235	50.58
Cook's Distance	1	282	.06
Leverage Value	.06	235	.08
DFBeta	1	230	.30

a. Dependent Variable: Affective CTC

As illustrated in Table 4.4, the Mahalanobis Distance was first evaluated. The intersection of the number of predictor variables in the Chi-Square table at the .001 level is tested for this (Pearson & Hartley, 1958). This analysis has 11 predictor variables. In the Chi-Square table, the value at the intersection of .001 and the number of the predictors is 31.26. Therefore, any case greater than this number was considered an outlier. When the Mahalanobis Distance values in this dimension were evaluated, it was discovered that 5 cases, which are 235, 640, 451, 8, and 124, were above this critical value. The highest case, 235, has a value of 50.58. As a result, other criteria were investigated.

Accordingly, outliers were identified using the Cook's Distance value. Every value greater than 1 is an outlier with respect to Cook's Distance (Field, 2017). As provided in Table 4.4, due to the fact that the highest value was .06 (case 282), there are no cases in this dimension where the Cook's Distance value is larger than 1. As a result, there is no outlier based on this criterion.

Furthermore, Leverage Value is another way of identifying outliers. Pituch and Stevens (2016) suggested a formula for this criterion as $\text{Leverage value} > 3(k + 1) / n$. In the formula, “ k ” is for the number of predictors, and “ n ” is for the sample size. Since there were 11 predictors in the analysis, and the sample size was 642, .06 was obtained as a result of the calculation. Values larger than the calculation result, which is the critical value, are considered an outlier. When the Leverage values were examined, 5 cases, which are 235, 640, 451, 8, and 124, were found to be larger than this critical value. The highest case has a value of .08, as seen in Table 4.4.

In addition, the DFBeta value is the last way to detect the multivariate outlier. Field (2017) defined outliers as values having a DFBeta value greater than 1. In this dimension, the highest DFBeta value is .30, case 230, as reported in Table 4.4. Thus, according to this criterion, there are no outliers.

As a result of four multivariate outlier criteria for this dimension, there were five outlier cases with respect to Mahalanobis Distance and Leverage Value. Since

Mahalanobis Distance and Leverage Value reported the same 5 cases that are above the critical value, the analysis had to be repeated. At the end of this assumptions section, it is stated whether five outliers determined by Mahalanobis Distance and Leverage Value were excluded from the sample as a result of repeated hierarchical multiple regression analysis. Cook's Distance and DFBeta results did not report any outlier, and it was decided that there was no elimination from the sample based on Cook's Distance and DFBeta results. In conclusion, all the assumptions were fulfilled.

4.2.1.2 Assumption Checks for “Normative” Dimension of Commitment to Change

In the aim of checking for assumptions in the study, analyses were performed for the "normative," which is the outcome variable and the second dimension of CTC; (1) to evaluate normality, that is, the absence of univariate outliers, the histogram, and P-P plot were examined, (2) to assess homoscedasticity and linearity of the residuals, the scatter plot was examined, (3) to examine into the independence of errors, Durbin and Watson's value was observed, (4) to check over the absence of multicollinearity, bivariate correlations, Tolerance, and VIF values were examined, and (5) to observe multivariate outliers, Mahalanobis Distance, Cook's Distance, Leverage Value, and DFBeta values, which are influential observations, were examined. The assumption of residual normality was first tested. The histogram and P-P plot were utilized to determine if the data had a normal distribution. As a consequence, it was observed that the residuals in the histogram were normally distributed, as illustrated in Figure 4.4.

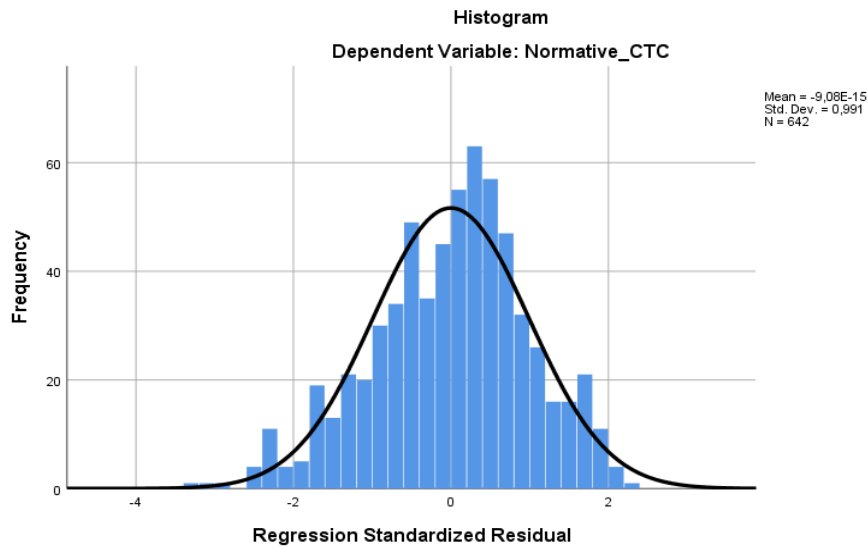


Figure 4.4 Histogram for “normative” dimension

To test for normality, a P-P plot was also utilized. The P-P plot, as shown in Figure 4.5, was provided for residual normality. As seen in Figure 4.5, the cases mostly crossed the line. Consequently, the data were assumed to be normally distributed as a result of visual inspection.

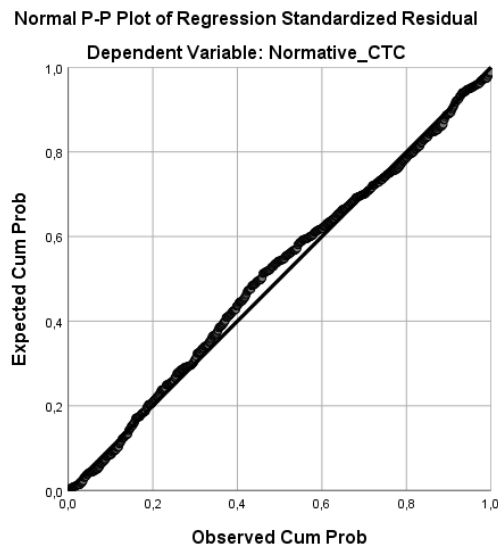


Figure 4.5 P-P Plot for “normative” dimension

After the normality assumption was fulfilled, scatter plots were inspected to establish the residuals' assumption of homoscedasticity and linearity. Both variables are normally distributed and joined in a linear fashion, and the scatter plot takes on an oval shape, as illustrated in Figure 4.6. Furthermore, as shown in the figure below, no error had created a pattern, indicating that the data was not heteroscedastic. As a consequence, it was determined that this assumption was met.

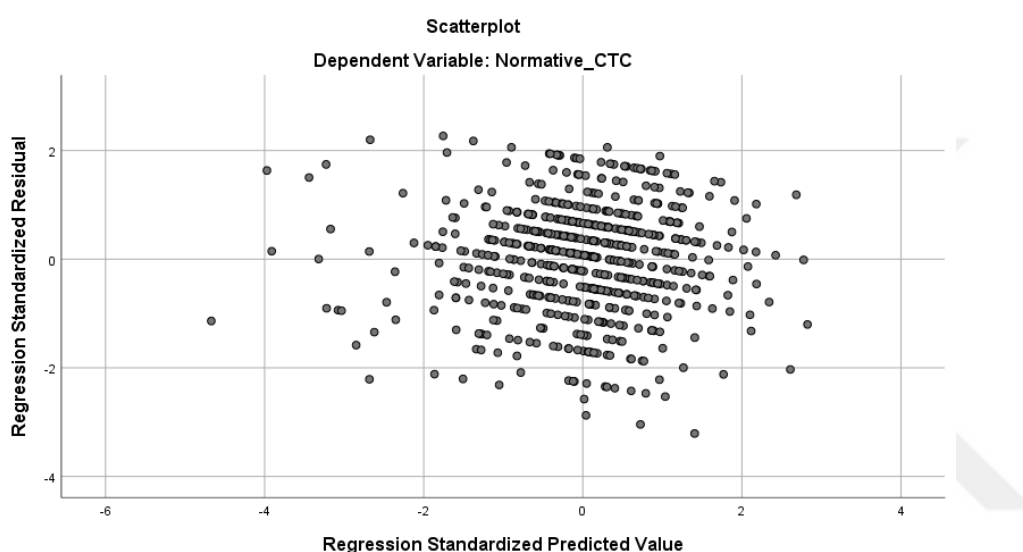


Figure 4.6 *Scatter Plot for “normative” dimension*

The value of Durbin and Watson was used to verify the assumption of the independence of errors. The residual independence assumption was examined in this respect, and it was established that Durbin and Watson's value was 1.901, which is between 1 and 3. As a consequence, the assumption was validated.

Bivariate correlations, Tolerance, and VIF values were investigated to test the multicollinearity assumption. First of all, the correlations of the statistically significant range of values for the bivariate correlation coefficients of the predictor variables in this study are between .08 and .89, which was not exceeded the recommended value (.90) by Tabachnick and Fidell (2013). According to the correlation matrix table (Table 4.2), the strongest association existed between

support culture and success culture ($r = .89$). The second strongest association was between cognitive RFC and intentional RFC ($r = .77$). Hence, the only value near to the cut-off value is the association between support culture and success culture. Even though there was a correlation between support culture and success culture near the cut-off value, it was not greater than the cut-off value. Secondly, it is suggested that the Tolerance ($1/VIF$) value must be more than .10 by Hair and his colleagues (2018), and all findings satisfy the suggested value, as shown in Table 4.5. Finally, Hair and his colleagues (2018) recommended that the VIF value be smaller than 4. According to Menard (2001), a VIF value of 5 or below would not be a concern for the multicollinearity assumption. VIF values vary from 1.02 to 4.90, as shown in Table 4.5. In conclusion, the multicollinearity assumption was not violated.

Table 4.5 Collinearity Statistics of Normative CTC

<i>Collinearity Statistics</i>		
Variables	Tolerance	VIF
Elementary vs High	.81	1.24
Middle vs High	.81	1.24
Teacher Size	.96	1.04
Gender	.98	1.02
Working Years	.95	1.05
Cognitive RFC	.37	2.74
Emotional RFC	.61	1.65
Intentional RFC	.35	2.87
Support Culture	.20	4.90
Success Culture	.21	4.78
Change Efficacy	.68	1.46

a. Dependent Variable: Normative CTC

The final assumption to be evaluated for hierarchical regression is the multivariate outlier. Four values, namely Mahalanobis Distance, Cook's Distance, Leverage Value, and DFBeta, were analyzed in order to detect multivariate outliers. To examine this assumption, some of the results of these four values, such as the extreme and critical values provided in Table 4.6, should be reviewed.

Table 4.6

Extreme Values

Criteria	Critical Value	Case Number	Highest Value
Mahalanobis Distance	31.26	235	50.58
Cook's Distance	1	235	.04
Leverage Value	.06	235	.08
DFBeta	1	235	.25

a. Dependent Variable: Normative CTC

The Mahalanobis Distance was determined at first, as seen in Table 4.6. Thus, each case above the critical value of 31.26 (as established by using the Chi-Square table at the .001 level) was categorized as an outlier. When the Mahalanobis Distance values in this dimension were investigated, it was found that 5 cases were more than this critical value: 235, 640, 451, 8, and 124. The highest case, 235, is revealed at 50.58, which this value is above the critical value. That is why other criteria were looked into. Outliers were therefore discovered using the Cook's Distance value. As reported in Table 4.6, because of the fact that the greatest value in this dimension was .04, which was case 235, there are no cases in which the Cook's Distance value is more than 1. As a consequence, no outliers are detected using this criterion.

In addition, Leverage Value is another method for identifying outliers. The Leverage value was calculated using the formula proposed by Pituch and Stevens (2016) for this criterion, and it was .06. Outliers are values greater than the calculation result, which is the critical value. When the Leverage values were checked, 5 cases were discovered to be more than this critical value: 235, 640, 451, 8, and 124. The most

extreme case has a value of .08, as observed in Table 4.6. These cases, however, were not removed from the sample since they were close to the critical value. Furthermore, the DFBeta value is the last method for detecting the multivariate outlier. As illustrated in Table 4.6, the greatest DFBeta value for this dimension is .25 (case 235), which is less than 1. As a result, there are no outliers according to this criterion.

As a consequence of the four multivariate outlier criteria for this dimension, there were five outlier cases in terms of Mahalanobis Distance and Leverage Value. The analysis had to be repeated since Mahalanobis Distance, and Leverage Value revealed the same 5 cases that exceeded the critical value. At the end of this assumptions section, it is mentioned whether or not five outliers indicated by Mahalanobis Distance and Leverage Value were eliminated from the sample due to repeated hierarchical multiple regression analysis. Cook's Distance and DFBeta values revealed no outliers. Thus, it was decided that there was no elimination from the sample based on Cook's Distance and DFBeta values. In conclusion, all of the assumptions were met.

4.2.1.3 Assumption Checks for “Continuance” Dimension of Commitment to Change

Analyses were carried out for the "continuance," which is the outcome variable and the third dimension of CTC, in order to check for assumptions in the study; (1) The histogram and P-P plot were examined to assess normality, that is, the absence of univariate outliers; (2) the scatter plot was examined to check over homoscedasticity and linearity of the residuals; (3) Durbin and Watson's value was observed to examine into the independence of errors; (4) to check for the absence of multicollinearity, bivariate correlations, Tolerance, and VIF values were examined; and (5) Mahalanobis Distance, Cook's Distance, Leverage Value, and DFBeta values, which are influential observations, were examined to determine multivariate outliers. Firstly, the assumption of residual normality was checked. The histogram and P-P plot were used to assess whether the data had a normal distribution or not.

As a result, the residuals in the histogram were normally distributed, as presented in Figure 4.7.

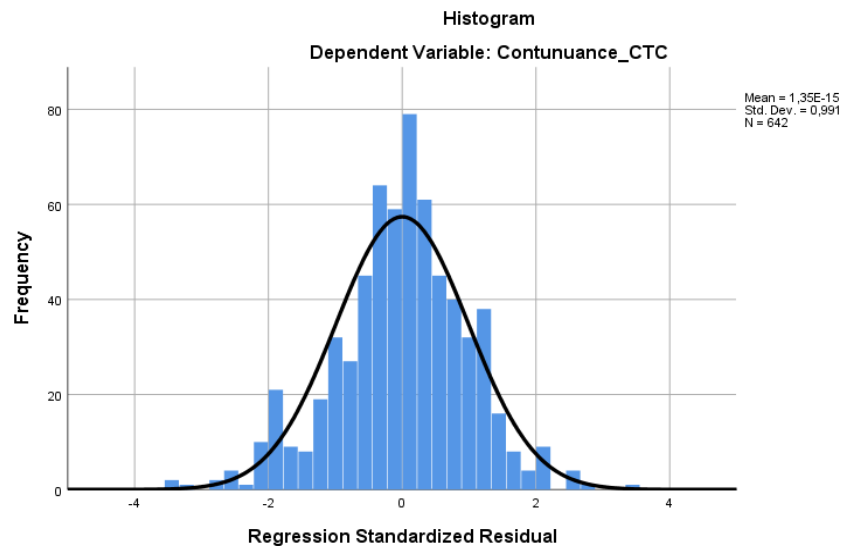


Figure 4.7 Histogram for “continuanace” dimension

A P-P plot was also used to assess the normality. For residual normality, the P-P plot was presented. As observed in Figure 4.8, the cases mostly intersected the line. As a consequence, the data was considered to be normally distributed by consideration of visual inspection.

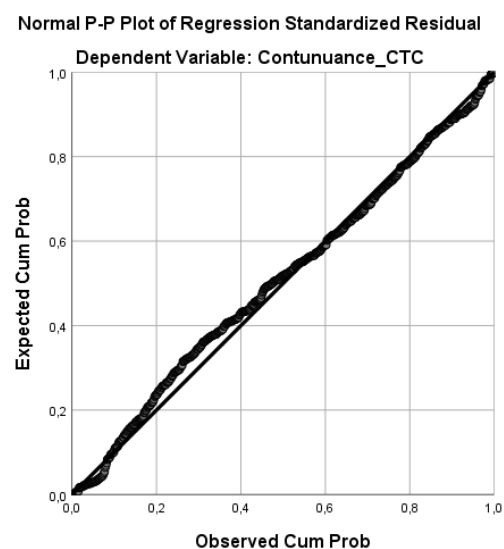


Figure 4.8 P-P Plot for “continuanace” dimension

Following the fulfillment of the normality assumption, scatter plots were examined to establish the residuals' assumptions of homoscedasticity and linearity. It is accepted that both variables are normally distributed and linearly connected because the scatterplot takes on an oval form. Furthermore, Figure 4.9 shows that no error had formed a pattern, revealing that the data was not heteroscedastic. In conclusion, it was decided that this assumption was satisfied.

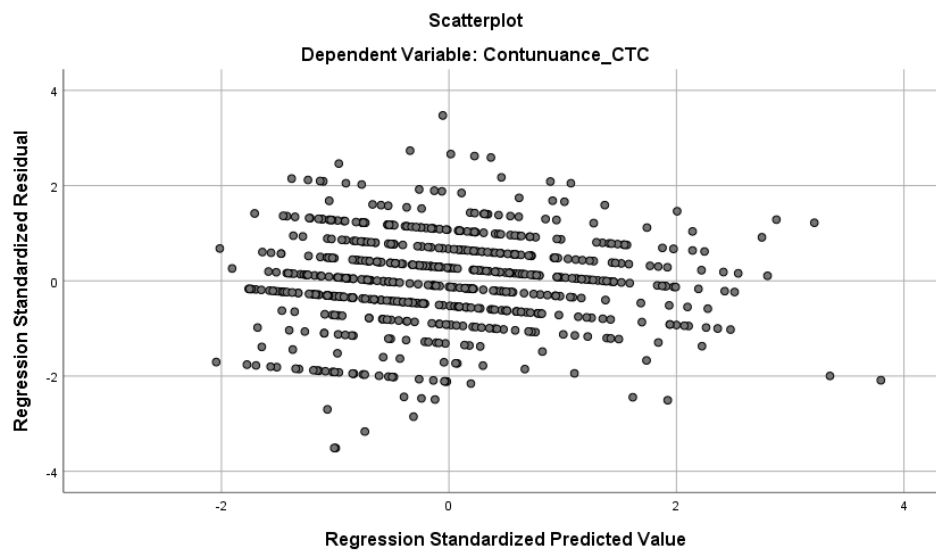


Figure 4.9 Scatter Plot for “continuance” dimension

The value of Durbin and Watson was used to validate the assumption of the independence of errors. In this regard, the residual independence assumption was investigated, and Durbin and Watson's value was discovered to be 1.868, which falls between 1 and 3. In conclusion, the assumption was confirmed.

In order to test the multicollinearity assumption, bivariate correlations, Tolerance, and VIF values were examined. Firstly, the correlations of the statistically significant range of values for the bivariate correlation coefficients between the predictor variables in this study are .08 and .89, which was not exceeded the recommended value (.90) by Tabachnick and Fidell (2013). The highest correlation appeared between support culture and success culture ($r = .89$), according to the correlation matrix table (Table 4.2). The second highest correlation between

cognitive RFC and intentional RFC ($r = .77$). Thus, the only value that comes close to the cut-off value is the correlation between support culture and success culture. Since there was a correlation between support culture and success culture near the cut-off value, it was not larger than it. Secondly, Hair and his colleagues (2018) propose that the Tolerance ($1/VIF$) value should be more than .10, and all findings meet this requirement, as shown in Table 4.7. Finally, Hair and colleagues (2018) suggested that the VIF value should be less than 4. A VIF value of 5 or below, according to Menard (2001), would not be a problem for the multicollinearity assumption. Table 4.7 shows that VIF values range from 1.02 to 4.90. Ultimately, the assumption of multicollinearity was not violated.

Table 4.7 Collinearity Statistics of Continuance CTC

<i>Collinearity Statistics</i>		
Variables	Tolerance	VIF
Elementary vs High	.81	1.24
Middle vs High	.81	1.24
Teacher Size	.96	1.04
Gender	.98	1.02
Working Years	.95	1.05
Cognitive RFC	.37	2.74
Emotional RFC	.61	1.65
Intentional RFC	.35	2.87
Support Culture	.20	4.90
Success Culture	.21	4.78
Change Efficacy	.68	1.46

a. Dependent Variable: Continuance CTC

The multivariate outlier is the final assumption to be checked for hierarchical regression. In order to discover multivariate outliers, four values were examined: Mahalanobis Distance, Cook's Distance, Leverage Value, and DFBeta. Some of the

findings of these four values, such as the extreme and critical values reported in Table 4.8, should be evaluated to examine this assumption.

Table 4.8

Extreme Values

Criteria	Critical Value	Case Number	Highest Value
Mahalanobis Distance	31.26	235	50.58
Cook's Distance	1	592	.04
Leverage Value	.06	235	.08
DFBeta	1	611	.26

a. Dependent Variable: Continuance CTC

The Mahalanobis Distance was first calculated, as shown in Table 4.8. Hence, every case that exceeded the critical value of 31.26, determined by the Chi-Square table at the .001 level, was designated an outlier. When the Mahalanobis Distance values in this dimension were examined, it was revealed that 5 cases, which are 235, 640, 451, 8, and 124, were more than this critical value. The highest case, 235, is discovered at 50.58, which is close to the critical value. That is why other criteria were investigated. Thus, outliers were discovered using the Cook's Distance value. As observed in Table 4.8, due to the fact that the highest value in this dimension was .04, in case 592, there are no cases where the Cook's Distance value is more than 1. In conclusion, no outliers are identified using this criterion.

Further, Leverage Value is another method to discover outliers. The Leverage value was determined using the formula developed by Pituch and Stevens (2016) for this criterion, and it was .06. Outliers are values that exceed the calculated result, which is the critical value. When the Leverage values were examined, it was determined that 5 cases, which are 235, 640, 451, 8, and 124, exceeded this critical value. The value in the most extreme case is .08, as seen in Table 4.8. However, these cases were not eliminated from the sample because they were near the critical value. In addition, the DFBeta value is the last way to discover the multivariate outliers. As

illustrated in Table 4.8, this dimension's highest DFBeta value is .26 (case 611), which is less than 1. As a consequence, no outliers are found using this criterion.

In conclusion, multivariate outliers were examined within the affective, normative, and continuance CTC dimensions. The same five outliers were detected via both Mahalanobis Distance and Leverage Value in all three dimensions. Because of the fact that the same outliers were detected in all dimensions, these values were removed, and hierarchical multiple regression analyses were performed again separately. The results did not change significantly. Since it was observed that these five outliers did not make a big difference in the analysis results, they were not excluded from the sample. Hence, it was decided that there was no elimination from the sample. Furthermore, Cook's Distance and DFBeta values did not reveal any outliers. Eventually, all of the assumptions were satisfied.

4.2.2 Results of Hierarchical Multiple Regression Analyses

A hierarchical multiple regression analysis was conducted to assess how well the IMBP model predicted teachers' CTC during the coronavirus pandemic. Hence, the IMBP components, which are attitude, perceived norm, and self-efficacy, were explored for their association with CTC dimensions (affective, normative, and continuance). In this study, (1) attitude was evaluated by cognitive RFC, emotional RFC, and intentional RFC; (2) perceived norm was examined by support culture and success culture; and (3) self-efficacy was assessed by change efficacy. As a result, analyses were performed to determine how effectively the IMBP components (cognitive RFC, emotional RFC, intentional RFC, support culture, success culture, and change efficacy) predicted dimensions of CTC, which are affective, normative, and continuance, after controlling for school demographics variables, teacher demographics variables, and the expectation level of the IMBP components.

4.2.2.1 Results of Hierarchical Multiple Regression Analysis for “Affective” Dimension of Commitment to Change

A hierarchical multiple regression analysis was conducted to examine how efficiently the IMBP components (cognitive RFC, emotional RFC, intentional RFC, support culture, success culture, and change efficacy) predicted the "affective" dimension of CTC after controlling for school demographics variables, teacher demographics variables, and the expectation level of the IMBP components. The first block consists of elementary vs. high school, middle vs. high school, and the teacher size. The first block does not have statistical significance. This suggests that neither the school level nor the teacher size predicts affective CTC ($F(3,638) = 1.07$, $p = .36$). The gender and working time of the teachers as a group was measured in the second block. Once the teachers' gender and working years are included, the second block, like the first, is not statistically significant. That is, both the gender and working years of teachers do not predict affective CTC ($F(5,636) = .26$, $p = .59$).

In the third block, to assess attitude, the first component of the IMBP, cognitive RFC, emotional RFC, and intentional RFC have been added to the model and examined. As reported in Table 4.9, the third block is statistically significant ($F(8,633) = 128.96$, $p < .017$). The two individual tests, which are cognitive RFC ($t(633) = 7.47$, $p = .000$) and intentional RFC ($t(633) = 2.98$, $p = .003$), are statistically significant; the p values are less than .017. Both cognitive RFC and intentional RFC predict affective CTC significantly. Furthermore, the reported t values have positive directions. Therefore, there is a positive correlation between cognitive RFC, intentional RFC, and affective CTC. Besides, the last individual test, emotional RFC, is not statistically significant ($t(633) = 1.57$, $p = .117$). Furthermore, cognitive RFC had a larger beta value ($\beta = .38$) than intentional RFC ($\beta = .16$). Overall, this block accounts for a unique amount of variance, with 37.7 % of the variance, in the criterion variable, which is the affective CTC.

In the fourth block, to measure perceived norm, the second component of the IMBP, support culture and success culture, were included in the model and tested. The fourth block, as displayed in Table 4.9, is statistically significant ($F(10,631) = 1.68$, $p < .017$). However, in the fourth block, the individual tests are none of them significant; the p values are all greater than .017. That means the predictors, which are support culture and success culture, are correlated with each other to such a degree that none of them offers any significant amount of unique variance in explaining the affective CTC. Furthermore, this block accounted for a unique amount of variance, with 0.3 % of the variance, in the criterion variable, which is the continuance CTC.

In the fifth block, in order to evaluate self-efficacy, which is the third component of the IMBP, change efficacy was introduced to the model and examined. It is observed that the fifth block is statistically significant ($F(11, 630) = 9.07$, $p < .017$), and its only predictor, change efficacy, is also statistically significant ($t(630) = 3.01$, $p = .003$). The indicated t value is pointing in the right direction. Hence, there is a correlation between change efficacy and affective CTC. Moreover, change efficacy recorded a beta value ($\beta = .11$). Additionally, this block explained a unique amount of variance, with 0.9 % of the variance, in affective CTC, which is the criterion variable.

Lastly, it has been determined whether or not the overall model is significant. F and p were calculated for this. The overall model is significant ($F(11,630) = 37.38$, $p < .017$). It means that the IMBP components (cognitive RFC, emotional RFC, intentional RFC, support culture, success culture, and change efficacy) significantly predict the "affective" CTC after controlling for school demographics variables, teacher demographics variables, and the expectation level of the IMBP components. Besides, in order to determine the best predictor, sr^2 (part) was examined, as provided in Table 4.9. Therefore, cognitive RFC is the most notable and significant predictor of estimating the affective dimension.

Table 4.9*Results of the hierarchical regression analysis of the "affective" dimension (N=642)*

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>sr</i> ²	ΔR^2	ΔF
Block 1						.005	1.07
Elementary vs High	-.06	.09	-.03	-.72	-.02		
Middle vs High	-.08	.07	-.04	-1.04	-.03		
Teacher Size	.00	.00	.03	.85	.03		
Block 2						.001	.26
Gender	.08	.08	.03	1.03	.03		
Working Years	-.01	.01	-.05	-1.58	-.05		
Block 3						.377	128.96*
Cognitive RFC	.49	.07	.38	7.47*	.23		
Emotional RFC	.07	.04	.06	1.57	.05		
Intentional RFC	.22	.07	.16	2.98*	.09		
Block 4						.003	1.68*
Support Culture	.14	.08	.12	1.73	.05		
Success Culture	-.13	.08	-.11	-1.59	-.05		
Block 5						.009	9.07*
Change Efficacy	.19	.06	.11	3.01*	.09		

* $p < .017$

4.2.2.2 Results of Hierarchical Multiple Regression Analysis for “Normative” Dimension of Commitment to Change

The second regression analysis was performed to determine how well the IMBP components predicted the "normative" dimension of CTC after controlling for school demographic variables, teacher demographic variables, and the IMBP components' expectation level. The first block includes elementary vs. high school, middle vs. high school, and the teacher size. The first block is not statistically significant. It means that school level and the teacher size do not predict normative CTC ($F(3,638) = 1.35, p = .26$). In the second block, the gender and working time

of the teachers as a group was measured. When adding the teachers' gender and working years, the second block is not statistically significant like the first. That is, neither the gender of the teachers nor the working years has any effect on predicting normative CTC ($F(5,636) = .50, p = .41$).

To evaluate attitude, the first component of the IMBP, cognitive RFC, emotional RFC, and intentional RFC have been added to the model and measured in the third block. The third block is statistically significant ($F(8,633) = 6.84, p < .017$), as demonstrated in Table 4.10. An individual test, cognitive RFC ($t(633) = 3.25, p = .001$), is statistically significant; the p value is smaller than .017. Cognitive RFC significantly predicts affective CTC. Moreover, the reported t value points in the positive direction. Hence, there is a correlation between cognitive RFC and affective CTC. Additionally, the rests of the individual tests, which are emotional RFC ($t(633) = -1.11, p = .270$) and intentional RFC ($t(633) = .66, p = .507$), are not statistically significant. Furthermore, cognitive RFC recorded a beta value ($\beta = .21$). Generally, this block explained a unique amount of variance, with 3.1 % of the variance, in normative CTC, which is the criterion variable.

In the fourth block, in order to evaluate the perceived norm, the second component of the IMBP, support culture and success culture, were added to the model and evaluated. Table 4.10 shows that the fourth block is statistically significant ($F(10,631) = 5.92, p < .017$). However, individual tests in the fourth block are none of them significant, with p values larger than .017. That is, the predictors, support culture and success culture, are so highly associated with one another that none of them contributes any significant amount of unique variance in explaining the normative CTC. Besides, this block accounts for a unique amount of variance, with 1.8 % of the variance, in the criterion variable, which is the normative CTC. In the fifth block, the third component of the IMBP, self-efficacy, was included in the model and analyzed to measure change efficacy. Despite the fact that this block is significant ($F(11, 630) = .26, p < .017$), the only predictor in this block did not contribute significantly to the prediction of normative CTC.

Finally, whether or not the overall model is significant has been assessed. For this, F and p were computed. Overall, the model is significant ($F(11,630) = 3.47, p < .017$). It indicates that after controlling for school demographics, teacher demographics, and the expectation level of the IMBP components, the IMBP components (cognitive RFC, emotional RFC, intentional RFC, support culture, success culture, and change efficacy) significantly predict the "normative" CTC. In addition, sr^2 (part) was evaluated to find the best predictor, as displayed in Table 4.10. Hence, the most salient and significant predictor is cognitive RFC to predict the normative dimension.

Table 4.10 Results of the hierarchical regression analysis of the "normative" dimension (N=642)

Variable	B	$SE\ B$	β	t	sr^2	ΔR^2	ΔF
Block 1						.006	1.35
Elementary vs High	-.09	.07	-.05	-1.22	-.05		
Middle vs High	-.07	.06	-.05	-1.10	-.04		
Teacher Size	.00	.00	.06	1.55	.06		
Block 2						.002	.50
Gender	-.06	.07	-.03	-.87	-.03		
Working Years	.00	.01	.01	.13	.01		
Block 3						.031	6.84*
Cognitive RFC	.17	.05	.21	3.25*	.13		
Emotional RFC	-.04	.04	-.06	-1.11	-.04		
Intentional RFC	.04	.06	.04	.66	.03		
Block 4						.018	5.92*
Support Culture	-.06	.07	-.08	-.96	-.04		
Success Culture	-.05	.06	-.06	-.70	-.03		
Block 5						.000	.26*
Change Efficacy	-.03	.05	-.02	-.51	-.02		

* $p < .017$

4.2.2.3 Results of Hierarchical Multiple Regression Analysis for “Continuance” Dimension of Commitment to Change

The final regression analysis was carried out to assess how effectively the IMBP components predicted the "continuance" dimension of CTC after adjusting for school demographic variables, teacher demographic variables, and the IMBP components' expectation level. The first block comprises elementary vs. high school, middle vs. high school, and the teacher size. The first block is not statistically significant. This implies that neither the school level nor the number of teachers predicts continuance. CTC ($F(3,638) = .83, p = .48$). In the second block, the gender and working time of the teachers as a group was measured. Whenever the gender and working years of the teachers are taken into account, the second block, like the first, is not statistically significant. That is, teachers' gender and working years do not predict the continuance CTC ($F(5,636) = .48, p = .64$).

The third block analyzed attitude, which is the first component of the IMBP, by adding the model and measuring cognitive RFC, emotional RFC, and intentional RFC. Table 4.11 reveals that the third block is statistically significant ($F(8,633) = 7.20, p < .017$). Emotional RFC ($t(633) = -3.20, p = .001$), which is an individual test, is statistically significant because the p value is less than .017. Emotional RFC significantly predicts affective CTC. Furthermore, the reported t value is in the negative direction. Thus, there is a negative correlation between emotional RFC and affective CTC. Furthermore, the remainders of the individual tests, cognitive RFC ($t(633) = -.70, p = .487$) and intentional RFC ($t(633) = .90, p = .930$), are not statistically significant. Additionally, emotional RFC reported a beta value ($\beta = -.16$). Consequently, this block accounted for a unique amount of variance, with 3.3 % of the variance, in the criterion variable, which is the continuance CTC.

In order to evaluate perceived norm, the second component of the IMBP, support culture and success culture, were added to the model and evaluated in the fourth block. Table 4.11 shows that the fourth block is statistically significant ($F(10,631) = .55, p < .017$). However, individual tests in the fourth block are all statistically insignificant, with p values greater than .017. In other words, the predictors, support culture and success culture, are so strongly correlated that none of them provides a significant amount of unique variance in explaining the continuance CTC. Additionally, this block explained a unique amount of variance, with 0.2 % of the variance, in continuance CTC, which is the criterion variable. The third component of the IMBP, self-efficacy, was added to the model and assessed in the fifth block to measure change efficacy. Although this block is statistically significant ($F(11, 630) = .02, p < .017$), the lone predictor in this block did not significantly contribute to the prediction of continuance CTC.

Consequently, the significance of the overall model has been determined. F and p were computed for this. The overall model is significant ($F(11,630) = 2.38, p < .017$). It shows that the IMBP components (cognitive RFC, emotional RFC, intentional RFC, support culture, success culture, and change efficacy) significantly predict the "continuance" CTC after controlling for school demographics, teacher demographics, and the expectation level of the IMBP components. Additionally, sr^2 (part) was tested to determine the best predictor, as illustrated in Table 4.11. Thus, emotional RFC is the most obvious and strongest predictor in the continuance dimension.

Table 4.11*Results of the hierarchical regression analysis of the "continuance" dimension (N=642)*

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>sr</i> ²	ΔR^2	ΔF
Block 1						.004	.83
Elementary vs High	-.03	.05	-.03	-.65	-.03		
Middle vs High	.04	.05	.04	.96	.04		
Teacher Size	.00	.00	.00	.04	.00		
Block 2						.001	.48
Gender	.02	.05	.02	.42	.02		
Working Years	.00	.00	.05	1.17	.05		
Block 3						.033	7.20*
Cognitive RFC	-.03	.04	-.05	-.70	-.03		
Emotional RFC	-.08	.03	-.16	-3.20*	-.13		
Intentional RFC	.00	.04	.01	.09	.00		
Block 4						.002	.55*
Support Culture	.03	.05	.05	.59	.02		
Success Culture	-.04	.05	-.08	-.93	-.04		
Block 5						.000	.02*
Change Efficacy	.01	.04	.01	.13	.01		

* $p < .017$

CHAPTER 5

DISCUSSION

In this section, first of all, the findings of the study are discussed comprehensively regarding the relevant references in the literature. Afterward, implications for theory and practice are proposed. Finally, the limitations of this study are addressed, resulting in recommendations for further research.

5.1 Discussion of the Results

The primary aim of this study was to utilize the Integrative Model of Behavioral Prediction (IMBP) to explain public school teachers' commitment to change (CTC) during the coronavirus pandemic. The study brought into the open the interesting findings that ought to be evaluated in the context of the relevant literature. It is hypothesized that the IMBP components predict teachers' CTC. Moreover, CTC dimensions are evaluated sequentially in subsequent stages of the regression analysis after controlling for predictor variables in each block. The results of the hierarchical multiple regression revealed some significant associations between the predictor variables (IMBP components) and criterion variables (CTC dimensions).

When the demographic information of the participants is examined according to the Bivariate Correlations Table (Table 4.2), teachers' age, teachers' working years (experience), teacher size, and student size are correlated with each other. Moreover, both teachers' age and teacher size are associated with support culture. As the age of the teachers and the size of the teachers in the school increased, it was seen that the support culture prevailed in the school. In other words, good relationships and trust were observed among school members who are teachers and principals in

schools with a high average age of teachers and an increased number of teachers. Besides, both teachers' age and teachers working years are correlated with success culture. As the teachers' ages and working years (experience) increased, it was clear that a culture of success dominated at the school. That is, it is observed that in such schools, successful teachers are supported and given importance to completing duties and meeting goals.

Further, the Bivariate Correlations Table of the study was utilized to determine the relationship between predictor and criterion variables. Firstly, the “affective” CTC has a significant positive relationship with all other predictor variables except success culture. It has no significant relationship with success culture. This means that as the average values of cognitive RFC, emotional RFC, intentional RFC, support culture, and change efficacy increase, the “affective” CTC increases. Along with the findings of some studies, teachers become more affectively committed to change when they show readiness for change (Thien, 2019), when there is a culture that supports teachers at school (Sezgin, 2010), and when teachers feel competent to implement change (Chen et al., 2001; Giovanita & Mangundjaya, 2017; Neubert & Cady, 2001; van Vuuren et al., 2008). Secondly, while the “normative” CTC has a significant positive relationship with all dimensions of attitude, which are cognitive, emotional, and intentional RFC, it has a significant negative relationship with the dimensions of the perceived norm, which are support and success culture. In other words, the higher the average values of the attitude or RFC, the higher the “normative” CTC (Anggraeni, 2020). On the contrary, as the average values of the perceived norms increase, the “normative” CTC decreases. That is, in an environment where change is perceived positively, individuals do not think the implemented change is all their responsibility (Fedor et al., 2006). Furthermore, this study's findings demonstrated that the “normative” CTC has no significant relationship with change efficacy. However, other studies in the literature stated the opposite. In other words, teachers' change competence is an important factor in implementing change, which they see as their responsibility (Fatima et al., 2020; Neubert & Cady, 2001; van Vuuren et al., 2008). Finally, the “continuance” CTC

has a significant negative correlation with all dimensions of attitude. That is, whenever the average values of attitude increase, the “continuance” CTC decreases. Additionally, it has a significant relationship with neither perceived norm nor change efficacy. Contrary to the findings of this study, studies in the literature express that change efficacy is a significant factor for continuance CTC (Fatima et al., 2020; Neubert & Cady, 2001; van Vuuren et al., 2008).

Moreover, since three blocks containing predictor variables (block 3 for attitude, block 4 for perceived norm, and block 5 for change efficacy) are statistically significant, the hierarchical regression analysis results of "affective" CTC are answered the first research question as 'The IMBP components, which are attitude, perceived norm, and self-efficacy, predict the "affective" dimension of CTC.' Accordingly, each block of predictor variables is statistically significant. All predictor variable blocks contributed to the affective CTC, and the total variance of affective CTC is 40 %. Nevertheless, when the individual tests were examined, it was seen that 3 of the six predictor variables were statistically significant. Two significant individual tests are from the attitude block: cognitive RFC and intentional RFC. Also, the other significant individual test is change efficacy, which stands for self-efficacy. In line with other studies on this result (Allen & Meyer, 1990; Foks, 2015; Herscovitch & Meyer, 2002; Mukerjee et al., 2021), this may be described as teachers' willingness to give support for the change based on a positive belief in educational change, their purpose of acting, and adequate change abilities. In other words, if a person has a positive belief in change (Morin et al., 2015), a purpose for acting on (Foks, 2015; Herscovitch & Meyer, 2002), and the confidence to make the change happen (Chen et al., 2001; Neubert & Cady, 2001), they are affectively committed to the change that will happen.

Furthermore, considering three blocks, including predictor variables (block 3 for attitude, block 4 for perceived norm, and block 5 for change efficacy), are statistically significant, the results of the hierarchical regression analysis of "normative" CTC answered the second research question as 'The IMBP components,

which are attitude, perceived norm, and self-efficacy, predict the "normative" dimension of CTC.' That is, each predictor variable block is statistically significant. All predictor variable blocks contributed to the normative CTC, and the overall variance of the normative CTC is 6%. Although all predictor variables appear to contribute to the normative CTC, the change efficacy block has a variance of less than 0.1%, which is very low. Maybe this is because normative CTC is kind of a sense of responsibility to the change. Therefore, the teachers' feeling of competence in implementing the change may be ineffective in this compulsory change caused by the coronavirus in terms of normative CTC (Kim et al., 2021). Besides, when the individual tests were reviewed, one of the six predictor variables was statistically significant. The cognitive RFC is the only significant individual test from the attitude block. This, like previous research on the normative CTC (Allen & Meyer, 1996; Bouckenooghe et al., 2014), may be interpreted as teachers' positive belief in change because although they feel that it is responsibility to implement the change, they are also aware of the benefits that the change will provide them, such as technological literacy skills. All teachers, whether they have technological literacy skills or not, have learned new programs to conduct online classes, such as Zoom, and Google Classroom, during the coronavirus pandemic (Başaran et al., 2020); therefore, they have the skills to adapt to today's technology age.

Additionally, regarding three blocks involving predictor variables (block 3 for attitude, block 4 for perceived norm, and block 5 for change efficacy) are statistically significant, the results of the "continuance" CTC hierarchical regression analysis answered the third research question as 'The IMBP components, which are attitude, perceived norm, and self-efficacy, predict the "continuance" dimension of CTC.' That is, each block of predictor variables is statistically significant. All predictor variable blocks contributed to the continuance CTC, and the total variance of the continuance CTC is 4%. Although all predictor variables appear to contribute to the continuance CTC, the variation in the change efficacy block is less than 0.1 %, which is incredibly low. This is an interesting finding because continuance CTC is defined as promoting change by raising awareness of the consequences of failure.

That is, the person works for the success of the change because fear of loss drives them. Contrary to this finding, however, in order to make the change successful, the person must feel competent and have a belief that they will succeed (Bandura, 1986; Cho & Yzer, 2012; Fishbein & Ajzen, 2010; Klein & Sorra, 1996). Nevertheless, the fact that the change efficacy did not contribute to the study at a high rate may also indicate that the teachers participating in the study have sufficient competence in the change. Further, one of the six predictor variables was discovered to be statistically significant when the individual tests were examined. The emotional RFC is the only significant individual test from the attitude block. In accordance with an earlier study on the continuance CTC (Allen & Meyer, 1996; Cunningham, 2006; Herscovitch & Meyer, 2002; Ramos-Maçães & Román-Portas, 2022), this can be interpreted as teachers are concerned about the change that has occurred. Since the continuance CTC is known as the fear of loss, it is usual for the emotional RFC to come into prominence.

When the results of the hierarchical regression analysis of the 3 criterion variables are evaluated together, in line with other studies (Cimili-Gök & Özçetin, 2021; Foks, 2015; Sezgin, 2010; Toprak & Aydın, 2015), as variance sizes are ordered from most significant to most minor in this study, the affective CTC takes the first place with 40%, followed by the normative CTC with 6%, and the continuance CTC with 4%. As evidenced by the findings, affective CTC displayed the greatest variance. This can be explained as emotional factors play a significant influence in organizations (Morin et al., 2015). In accordance with that, it has been observed that teachers establish an emotional bond with their job and colleagues. As previously stated, an individual's positive emotional attachment and commitment to change is called affective CTC (Herscovitch & Meyer, 2002), which explains the high variance of the model. On the contrary, the normative CTC is the level of the psychological state towards change and the psychological degree of commitment to change (Herscovitch & Meyer, 2002). That is, it has been seen that it is related to the sense of responsibility rather than an emotional indicator. If a teacher exhibits behavior arising from a high degree of normative commitment during change, it is

because the change should be completed successfully (Bouckennooghe et al., 2014). In addition, affective CTC and normative CTC had a positive correlation (Cunningham, 2006; Jaros, 2010; Neves, 2011; Raeder & Bokova, 2019). In other words, as teachers become emotionally committed to change, they feel it is their responsibility to bring about that change. Furthermore, continuance CTC is centered upon emotional factors because there are some costs to resisting implementing change (Herscovitch & Meyer, 2002), and these costs impact on individuals' feelings (Jaros, 2010). Teachers may commit to the change because they consider the high cost of losing organizational membership (Foks, 2015). To illustrate, (1) economic costs – if a teacher fails to implement the change, they may lose their job, or (2) social costs – if a teacher opposes the change, they may be ostracized by their colleagues who accept the change. Moreover, there was a negative correlation between affective CTC and continuance CTC (Cunningham, 2006; Neves, 2011; Raeder & Bokova, 2019). That is, teachers who are emotionally committed to change are got rid of the concern that the change will fail — in other words, the fear of loss. In brief, affective and normative CTC express positive emotions to individuals, as they reflect individuals' "free" choice to implement change. Continuance refers to neutral or negative emotions in individuals, as CTC reflects a "forced" to a change due to the high costs of resisting change (Herscovitch & Meyer, 2002; Jaros, 2010).

Besides, the individual tests of the perceived norm, which are support culture and success culture, in all three CTC models resulted in statistically not significant. Moreover, there is a high correlation between support culture and success culture. This reveals that support culture and success culture are vastly correlated and that none of them explains a significant amount of unique variance in the three dimensions of CTC. This means that support culture and success culture must be included in the study as one dimension. The perceived norm scale (school culture scale) developed by Terzi (2005) used in this study was also used in another study. In accordance with this study, similar results were obtained from the study of

Yıldırım (2019). Since both support culture and success culture measure similar subjects, it is included in that study as a single dimension (Yıldırım, 2019).

5.2 Implications for Theory and Practice

Like the rest of the world, the Turkish education system (TES) has changed due to pandemic circumstances. The commitment of teachers, who are the practitioners of change, might be recommended as a factor that may influence the success of the change. Hence, the findings of the study have substantial practical consequences since they demonstrate teachers' CTC and its relationships with the IMBP.

Considering the CTC in general terms, "the glue that provides the vital bond between people and change goals" (Conner, 1993, p. 147). In searching for what this glue is, it is observed that there are several motivations why people support change (Herscovitch and Meyer, 2002). Some people have committed to organizational change because they love their job or the organization's aims coincide with their own; therefore, they participate in the change. Some people show CTC because their organizations obligated them. On the other hand, some people may be concerned about what they may lose if they resist the change (Allen & Meyer, 1990). In the literature, it is given some of the factors influencing the commitment to organizational change: organizational culture (Cimili-Gök & Özçetin, 2021; Fedor et al., 2006; Lim et al., 2021, Sezgin, 2010; Yıldırım, 2019), relationship with the manager (Lim et al., 2021; Neves, 2011), job motivation (Lim et al., 2021), change-related self-efficacy (Chen et al., 2001; Giovanita & Mangundjaya, 2017; Fatima et al., 2020; Neubert & Cady, 2001; Neves, 2011; van Vuuren et al., 2008), RFC (Thien, 2019), attitudes toward change (Anggraeni, 2020), leadership (Giovanita & Mangundjaya, 2017; Guerrero et al., 2018; Kim et al., 2021; Liu, 2020; Ramos-Maçães & Román-Portas, 2022; Yu et al., 2002), turnover intentions (Choi & Kwon, 2009; Cunningham, 2006). Commitment to change can also be measured by combining the above factors other than those used in this study. This study examined attitudes toward change, organizational culture, and change efficacy, among the variables influencing CTC. Moreover, this study adopted the CTC model developed

by Herscovitch and Meyer in 2002 to measure teachers' CTC. Besides, Commitment to change can be observed both as an attitude and as a behavior. In this study, it is considered an attitude, as seen from the definition and CTC scale sample items. Attitude could lead to a change in a commitment without corresponding changes in behavior. On the other hand, changes in commitment can result from both behavior and attitude (Werner et al., 1995).

This study assists the principal and MoNE identify teachers' behaviors that hinder and motivate the change process in a school. Based on these results, practical implications can be drawn for schools for the change to be successful. The results showed that affective CTC had the highest variance in teachers' CTC. Therefore, teachers' affective CTC is important because their CTC is identified by their emotional factors. Accordingly, from a general perspective, it is crucial for teachers to be appreciated by the principal for their work (Bahadur Bhujel, 2021; De Castro & Jimenez, 2022) and to get their opinion on the change (Thornburg & Mungai, 2011; Van Bodegraven, 2015) to increase their CTC during the change. When examined thoroughly, it is found that the dimensions of the predictor variables influencing the affective CTC are cognitive RFC, intentional RFC, and change efficacy. Hence, it should be considered when applying an organizational change in the TES is the positive belief of the teachers in a change process (cognitive RFC), their purpose of acting on the change (intentional RFC), and their level of knowledge and ability about the change (change efficacy). Since cognitive RFC has the most influence on affective CTC, it can be interpreted that most teachers are less likely to be committed to change when they do not have a strong belief that change would be successful (Morin et al., 2015). In the case of change, school principals must consider teachers' belief in change, their purpose in acting for change, and their needs for information about the change. In general, for implementing the change successfully, MoNE needs to develop teachers' perspectives on change, give them a purpose to implement change, and increase their level of knowledge about change. Especially considering self-efficacy, teachers' self-efficacy regarding change can be increased with seminars organized by MoNE. However, these seminars that will be

held should address definitely the change and should be specific to this topic. For example, the seminar should include the following topics; how teachers can increase their communication skills during change, how they can be involved in the change process, how they can take a role in the implementation of change, etc.

Furthermore, this study offers theoretical implications in addition to the practical implications indicated above. Considering that IMBP is a theory developed in the field of psychology, which is a behavioral science, its use in the field of education has made this study an interdisciplinary study. This study is the first in the literature in terms of explaining teachers' CTC with the IMBP. This study contributed to the literature, especially Turkish literature, in the fields of education and psychology.

5.3 Recommendations for Future Research

Notwithstanding the interesting findings of the study, the findings should be taken in light of the following limitations, which result in recommendations for further research.

First of all, the most significant limitation of this study is that all organizational changes are different (Beycioğlu & Kondakçı, 2020), and also, individuals experience the change process very differently. Teachers have all gone through various changes that have experienced a major impact during the coronavirus pandemic (Kumar et al., 2021). Considering that everyone has different experiences with this major change, it can be thought that this change has extremely personal outcomes. Therefore, the findings of this study are difficult to generalize. The only common point among teachers is that they all have got through a major change; apart from that, their schools, cities live in, etc., are different. In addition to that, the participants of this study were contacted via links shared on social media platforms, such as Instagram, Facebook, etc., that members of the target population would come across. Therefore, teachers accessed the scale through a link. On the other hand, other teachers were unable to participate since they did not encounter the scale link. As a result of the exclusion of some teachers who did not come across the scale

link, coverage bias may have occurred. As a result, this study's findings should not be generalized to the population represented by the sample because they may not be suitable for other samples. To avoid these limitations, future studies can focus on teachers from a single school that has undergone the same organizational change.

Secondly, although the school culture block gave statistically significant results, support culture and success culture did not give significant values in all three CTC analyses as a result of individual tests. It is thought that this is because it measures similar cultural characteristics in two dimensions. In the version of the scale used in this study, used in another study, these two dimensions were taken as a single dimension (Yıldırım, 2019). Therefore, taking these two dimensions as a single dimension in studies that will use the perceived norm scale (school culture scale) developed by Terzi (2005) will prevent roughness in the results of the study.

Furthermore, the study sample was limited to public schools. Private schools may be included in further research because they have greater facilities and opportunities in Turkey; that is why they have different organizational cultures (Yavuz & Yılmaz, 2012). Since school culture affects the teachers' CTC, the study results may have different consequences when private schools are involved.

Finally, as a result of the regression analyses, all predictor variables (attitude, perceived norm, and self-efficacy) gave statistically significant results. Nevertheless, all three CTC variances, particularly the two lowest normative CTC (6%) and continuance CTC (4%) did not yield very high results and failed to explain the model highly. This may be because novice teachers were included in the study, as many studies have highlighted that novice teacher will have negative attitudes toward change because they are new to the school (Bențea, 2013; Cimili-Gök & Özçetin, 2021; Kondakçı et al., 2015) and therefore, have low levels of CTC. Hence, removing novice teachers from the sample may provide better results in future studies. Besides, if teachers participate in the decision-making process during the change (Ceylan et al., 2021), their normative commitment to change can be higher in variance.

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APPENDICES

A. APPROVAL OF METU HUMAN SUBJECTS ETHICS COMMITTEE

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER



ORTA DOĞU TEKNİK ÜNİVERSİTESİ
MIDDLE EAST TECHNICAL UNIVERSITY

@metu.edu.tr
www.ueam.metu.edu.tr

Sayı: 28620816 /

14 NİSAN 2022

Konu : Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi : İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Prof.Dr. Yaşar KONDAKÇI

Danışmanlığını yürüttüğünüz Gülsüm Betül Karakuş'un "Öğretmenlerin Eğitim Değişimine Adanmışlıklarının Entegre Davranışsal Tahmin Modeline Göre Analizi" başlıklı araştırmanız İnsan Araştırmaları Etik Kurulu tarafından uygun görülmüş ve **209-ODTÜİAEK-2022** protokol numarası ile onaylanmıştır.

Saygılarımızla bilgilerinize sunarız.

Prof.Dr. Mine MISIRLISOY
İAEK Başkan

B. INFORMED CONSENT FORM

ARAŞTIRMAYA GÖNÜLLÜ KATILIM FORMU

Bu araştırma, ODTÜ Eğitim Bölümü Yüksek Lisans öğrencisi Gülsüm Betül Karakuş tarafından Prof. Dr. Yaşar Kondakçı danışmanlığındaki yüksek lisans tezi kapsamında yürütülmektedir. Bu form sizi araştırma koşulları hakkında bilgilendirmek için hazırlanmıştır.

Çalışmanın Amacı Nedir?

Araştırmanın amacı, korona sürecinde öğretmenlerin yüz yüze eğitimden çevrimiçi eğitime geçişte yaşadıkları değişime adanmışlıkları ile ilgili bilgi toplamaktır.

Bize Nasıl Yardımcı Olmanızı İsteyeceğiz?

Araştırmaya katılmayı kabul ederseniz, sizden beklenen, ankette yer alan bir dizi soruyu derecelendirme ölçeği üzerinde yanıtlamanızdır. Bu çalışmaya katılım ortalama olarak 25 dakika sürmektedir.

Sizden Topladığımız Bilgileri Nasıl Kullanacağız?

Araştırmaya katılımınız tamamen gönüllülük temelinde olmalıdır. Ankette, sizden kimlik veya kurum belirleyici hiçbir bilgi istenmemektedir. Cevaplarınız tamamıyla gizli tutulacak, sadece araştırmacılar tarafından değerlendirilecektir. Katılımcılardan elde edilecek bilgiler toplu halde değerlendirilecek ve bilimsel yayımlarda kullanılacaktır. Sağladığınız veriler gönüllü katılım formlarında toplanan kimlik bilgileri ile eşleştirilmeyecektir.

Katılımınızla ilgili bilmeniz gerekenler:

Anket, genel olarak kişisel rahatsızlık verecek sorular içermemektedir. Ancak, katılım sırasında sorulardan ya da herhangi başka bir nedenden ötürü kendinizi rahatsız hissederseniz cevaplama işini yarıda bırakıp çıkmakta serbestsiniz. Böyle bir durumda anketi uygulayan kişiye, anketi tamamlamadığınızı söylemek yeterli olacaktır.

Araştırmayla ilgili daha fazla bilgi almak isterseniz:

Anket sonunda, bu çalışmayla ilgili sorularınız cevaplanacaktır. Bu çalışmaya katıldığınız için şimdiden teşekkür ederiz. Çalışma hakkında daha fazla bilgi almak için ODTÜ Eğitim Bölümü öğretim üyelerinden Prof. Dr. Yaşar Kondakçı (E-posta: ya@metu.edu.tr) ya da yüksek lisans öğrencisi Gülsüm Betül Karakuş (E-posta: gb@metu.edu.tr) ile iletişim kurabilirsiniz.

Yukarıdaki bilgileri okudum ve bu çalışmaya tamamen gönüllü olarak katılıyorum.

(Formu doldurup imzaladıktan sonra uygulayıcıya geri veriniz).

İsim Soyisim

Tarih

İmza

---/---/---

C. PERMISSION TO USE ATTITUDE SCALE

Re: Değişime Hazır Olma Ölçeği Hk.

Tarih: 25-06-2021 (10:44:55 +03)

Kimden: Merve Zayim Kurtay

Kime: @metu.edu.tr

 Kaynağı Görüntüle

 Kaydet

 Metin (1 KB)  

Betul merhaba,

Ölçegimizi çalışmada kullanabilirsin elbette. Başarılar dilerim.

Sevgiler,
Merve

[Alıntı Metni Sakla]

On 25 Jun 2021, at 09:40, @metu.edu.tr wrote:

Sayın Merve Zayim,

Ben Gülsüm Betül Karakuş. ODTÜ Eğitim yönetimi ve planlaması bölümünde yüksek lisans öğrencisiyim ve tez dönemime geçtim.

2013'te geliştirdiğiniz 'Değişime Hazır Olma Ölçeği'nizi izniniz olursa tez çalışmamda kullanmak istiyorum.

Saygılar,

D. PERMISSION TO USE PERCEIVED NORM SCALE

Ynt: Okul Kültürü Ölçeği Hk.

Tarih: 16-03-2022 (18:26:03 +03)

Kimden: Ali Rıza Terzi

Kime: @metu.edu.tr

 Kaynağı Görüntüle

 Kaydet

 Tüm Parçaları Göster

Sn Gülsüm Betül Karakuş

Bahse konu ölçeğimi tezinizde akademik teamüller çerçevesinde kullanabilirsiniz.

Not. Ölçekten toplam bir puan hesaplanamaz. her alt boyut için ayrı ayrı hesaplanması gerekir. yani bu okulun örgüt kültürü ortalaması şudur denemez Başarılar dilerim.

Prof.Dr.Ali Rıza Terzi

Balıkesir Üniversitesi Necatibey Eğitim Fakültesi

Eğitim Bilimleri Bölümü Eğitim Yönetimi Anabilim Dalı

Tel:

Gönderen: @metu.edu.tr < @metu.edu.tr>

Gönderildi: 14 Mart 2022 Pazartesi 08:46

Kime: @hotmail.com < @hotmail.com>

Konu: Okul Kültürü Ölçeği Hk.

Sayın Ali Rıza Terzi,

Ben Gülsüm Betül Karakuş. ODTÜ Eğitim yönetimi ve planlaması bölümünde yüksek lisans öğrencisiyim ve tez dönemimdeyim. 2005'te geliştirdiğiniz 'Okul Kültürü Ölçeği'nizi izniniz olursa tez çalışmamda kullanmak istiyorum.

Saygılar,

E. PERMISSION TO USE SELF-EFFICACY SCALE

Re: Örgütsel Değişime Hazır Olma Ölçeği Hk.

Tarih: 30-03-2022 (00:12:50 +03)

Kimden: omer caliskan

Kime: @metu.edu.tr

 Kaynağı Görüntüle

 Kaydet

 Tüm Parçaları Göster

Merhaba Betül Karakuş,

Örgütsel Değişime Hazır Olma Ölçeği'ni tezinizde kullanabilirsiniz.

Başarılar,
Ömer

29 Mar 2022 Sal 22:09 tarihinde <@metu.edu.tr> şunu yazdı:

Sayın Dr. Ömer Çalışkan,

Ben Gülsüm Betül Karakuş. ODTÜ Eğitim yönetimi ve planlaması bölümünde yüksek lisans öğrencisiyim ve tez dönemimdeyim. 2019'da Türkçeye uyarladığınız 'Örgütsel Değişime Hazır Olma Ölçeği'nizi izniniz olursa tez çalışmamda kullanmak istiyorum.

Saygılar,

F. PERMISSION TO USE COMMITMENT TO CHANGE SCALE

Re: Değişime Bağlılık Ölçeği Hk.

Tarih: 29-03-2022 (23:03:56 +03)

Kimden: Mustafa Toprak

Kime: @metu.edu.tr

Ekler: Değişime Bağlılık Ölçeği.pdf (211 KB)

Kaynağı Görüntüle

Kaydet

Tüm Parçaları Göster

Metin (1 KB)

Betül hanım merhaba,

Tabii ki kullanabilirsiniz. Ekte ölçeği bulabilirsiniz.

İyi çalışmalar dilerim,

Best,

Mustafa Toprak, PhD
Assistant Professor
Educational Administration & Policy
Department of Educational Studies
The American University in Cairo

On 29 Mar 2022, at 21:41, ul@metu.edu.tr wrote:

Sayın Dr. Mustafa Toprak,

Ben Gülsüm Betül Karakuş. ODTÜ Eğitim yönetimi ve planlaması bölümünde yüksek lisans öğrencisiyim ve tez dönemimdeyim. 2015'te Türkçeye uyarladığınız 'Değişime Bağlılık Ölçeği'nizi izniniz olursa tez çalışmamda kullanmak istiyorum.

Saygılar,

G. DEMOGRAPHIC INFORMATION FORM

KISIM I

1. Cinsiyetiniz:
2. Yaşınız:
3. Medeni durumunuz: ☐ Bekâr ☐ Evli ☐ Boşanmış
4. En Son Mezun Olduğunuz Okul: ☐ Lise ☐ Üniversite ☐ Yüksek Lisans ☐ Doktora
5. Çalıştığınız Okul Seviyesi: ☐ İlkokul ☐ Ortaokul ☐ Lise
6. Branşınız:
7. Aktif olarak kaç yıldır öğretmenlik yapıyorsunuz?:
8. Öğretmen olarak statünüz nedir? ☐ Başöğretmen ☐ Uzman Öğretmen ☐ Öğretmen
☐ Sözleşmeli Öğretmen ☐ Ücretli Öğretmen ☐ Stajyer Öğretmen
9. Bugüne kadar yürüttüğünüz idari görevler: ☐ Müdür ☐ Müdür yardımcısı ☐ Yok
10. Okulunuzdaki öğretmen sayısı:
11. Okulunuzdaki öğrenci sayısı:

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I. TURKISH SUMMARY / TRKE ZET

1. GİRİŞ

Gnmz dnyasında her Őey deęiŐiyor. Antik Yunan Filozofu Herakleitos, "Her Őey deęiŐir. DeęiŐmeyen tek Őey deęiŐimdir" demiŐtir. zellikle koronavirs pandemisi baŐladıęından beri insanların hayatı her ynden deęiŐti. Artık insanlar mmkn olduęunca tm iŐlerini evden halletmeye alıŐıyorlar ve arkadaŐlarıyla, meslektaŐlarıyla hatta aileleriyle fazla iletiŐim kuramıyorlar. Bu nedenle bu deęiŐim her byklkteki organizasyonda rgtsel deęiŐime yol amaktadır. DeęiŐim baskıları hem organizasyonun iinden hem de dıŐından gelir. Organizasyondaki deęiŐimin dinamikleri gz nne alındıęında, organizasyonların deęiŐmesine neden olan eŐitli dıŐ faktrler olabilir. DeęiŐim ihtiyaı, tm rgtsel deęiŐimin znde dahili prosedrleri ierir. Bir organizasyon hayatta kalabilmek iin bu baskıların nne gemelidir (Polyzoi vd., 2003).

Bu alıŐma, BtnleŐtirici DavranıŐsal Tahmin Modelini (BDTM) kullanarak ęretmenlerin deęiŐime baęlılıklarını (DB) inceleyecektir. BDTM, uzun yıllar sren alıŐmaların sonucunda Fishbein ve Ajzen (2010) tarafından son halini almıŐtır. BDTM, davranıŐın niyetler altında gerekleŐtirildięini destekler. Modelde niyet, kiŐinin tutumu, algılanan normu ve z yeterlilięinin bir sonucu olarak oluŐur. Niyet basamaęı ihmal edilerek davranıŐın doęrudan sergilendięi dŐnlrse, davranıŐı belirleyen  faktr vardır: tutum, algılanan norm ve z-yeterlik. Bunun yanı sıra, DB'yi etkileyen faktrlerden bazıları deęiŐime karŐı tutum (Irfan vd., 2021), organizasyon kltr (Lim vd., 2021; Raeder ve Bokova, 2019) ve deęiŐimle ilgili z yeterliliktir (Wanberg ve Banas, 2000). Bu nedenle bir kiŐinin DB'si BDTM ile aıklanabilir, nk DB ve BDTM'nin tutum, algılanan norm ve z-yeterlik bileŐenleri temsil ettikleri anlamlar aısından benzerdir.

BDTM geliştirildiğinde, ilk olarak sağlık bakımı ve sağlığın teşviki ve geliştirilmesinde kullanılmıştır (Fishbein, 2000). Bu model, davranışlarını değiştirmesi gereken sağlık sorunları olan kişiler üzerinde test edilmiştir (Fishbein ve Yzer , 2003). Bu nedenle sigara içen kişilere sigarayı bırakmalarını sağlamak için uygulanmıştır. Yani, davranış değişikliğini ölçmek için BDTM kullanılmıştır. Başka bir deyişle, değişimin ölçülmesi BDTM'nin yapısına uygundur. Ayrıca bağlılık, niyetin çok güçlü bir göstergesidir (Jimmieson vd., 2009; Robbins ve Barnwell, 1994). BDTM'de davranış niyetle ortaya çıktığından, değişim bağlamında düşünüldüğünde BDTM ile bağlılığı analiz etmek mümkündür. Bu nedenle, bu çalışmada BDTM'yi kullanmak, öğretmenlerin DB'sini ölçmek için ideal bir çerçevedir. Öğretmenlerin DB'si BDTM tarafından açıklandığı için, çalışmanın değişkenleri DB, tutum, algılanan norm ve öz-yeterlidir.

1.1 Çalışmanın Amacı

BDTM'yi kuramsallaştıran bu çalışmanın amacı, Türkiye'deki devlet okulu öğretmenlerinin bakış açısıyla tutum, algılanan norm, öz-yeterlik ve DB arasındaki ilişkiyi araştırmaktır. Bu çalışmanın bulguları ve sonuçları, BDTM'nin bileşenlerinin, öğretmenlerin BDTM'yi kullanarak eğitimsel değişime olan bağlılığı ile ilgili olabileceğini ortaya koymaktadır. Daha önce belirtildiği gibi, BDTM sağlık bakımı ve sağlığın teşviki ve geliştirilmesi amacıyla oluşturulmuştur. Sağlık alanındaki birçok çalışma bu modeli kullanmaktadır (Bleakley vd., 2011; Fishbein ve Yzer , 2003; Robbins ve Niederdeppe , 2014; Tsochas vd., 2013). Bu çalışmalar, alışkanlıklarını değiştirmeye çalışan sağlık sorunları olan gruplar üzerinde yapılmıştır. Bu model, öğretmenlerin değişime olan bağlılığını incelemek için oluşturulmasa da modelin davranış değişikliği temeli umut vericidir. Literatürde öğretmenlerin teknoloji kullanımı (Admiraal vd., 2013; Kreijns vd., 2013; Vermeulen vd., 2014) ve öğretmen eğitimi (Danter , 2005) ile ilgili literatürde BDTM'yi kullanan birkaç çalışma bulunmaktadır. En önemlisi, literatürde korelasyonel çalışma kullanılarak öğretmenlerin BDTM ile davranışlarını açıklayan birçok çalışma varken (Kreijns vd., 2014; Vermeulen vd., 2014), bunların hiçbir

öğretmenlerin özellikle Türk okulları bağlamında BDTM'yi kullanarak değişime bağlılıklarını ölçmemektedir. Bu nedenle bu çalışma özgün bir örnektir ve literatürdeki boşluğu doldurmaktadır. Bu çalışmanın literatüre katkısı kısaca; (1) pandemi sırasında öğretmenlerin bağlılığı, (2) BDTM ile bağlılık arasındaki ilişki ve (3) öğretmenlerin BDTM ile davranışlarının açıklanması. Sonuç olarak, bu çalışma, koronavirüs pandemisi sırasında öğretmenlerin DB'sini anlamak için açık ve bütünsel bir bakış açısı sağlamayı amaçlamaktadır.

Değişken adlarında okul bağlamında araştırmanın içeriğine uygun olarak bazı değişiklikler yapılmıştır. Bunu yapmak için, bu çalışmada, (1) tutum, öğretmenlerin değişime yönelik tutumunu, (2) algılanan norm, okul kültürünü ve (3) öz-yeterlik, öğretmenlerin öz yeterliliğini temsil etmektedir. Buna göre, bu çalışmanın *ölçüt değişkeni* öğretmenlerin eğitimsel değişime bağlılık düzeyidir. Bu çalışmanın *yordayıcı değişkenleri* öğretmenlerin değişime yönelik tutumları, değişen çevrede okul kültürü ve öğretmenlerin öz-yeterlikleridir. Bu nedenle, bu çalışma aşağıdaki araştırma sorusuna cevap verecektir:

Öğretmenlerin değişime yönelik tutumları, okul kültürü ve öğretmenlerin öz-yeterlikleri ve değişime bağlılıkları arasındaki ilişki nedir?

Buna göre, bu soru daha spesifik olarak ele alınırsa:

S₁ : Tutum, algılanan norm ve öz yeterlilik olan BDTM bileşenleri ile değişime bağlılığın “duygusal” boyutu arasında anlamlı bir pozitif ilişki var mı?

S₂ : Tutum, algılanan norm ve öz yeterlilik olan BDTM bileşenleri ile değişime bağlılığın "normatif" boyutu arasında anlamlı bir pozitif ilişki var mı?

S₃ : Tutum, algılanan norm ve öz yeterlilik olan BDTM bileşenleri ile değişime bağlılığın “devam” boyutu arasında anlamlı bir pozitif ilişki var mı?

1.2 Çalışmanın Önemi

Bu çalışma teoriye, uygulamaya ve araştırmaya katkı sağlamaktadır. Bu çalışma, özellikle eğitim alanında DB'yi BDTM açısından inceleyen ender çalışmalardan biridir; dolayısıyla bu çalışma alana teorik bir katkı sağlamaktadır. Bu yaklaşım, 'değişime bağlılık' literatürüne bir katkıdır çünkü literatürde BDTM'yi bir çerçeve olarak kullanan bunun gibi başka bir çalışma yoktur. Öte yandan, BDTM'nin çerçeve olarak kullanılması model için bir testtir. Diğer bir deyişle sağlık alanında geliştirilen bir modelin eğitim yönetiminde uygulanması da model için geçerlilik testidir.

Bu çalışma teorik öneminin yanı sıra uygulamaya da önemli katkılar sağlamıştır. Elde edilen bulgular sonucunda, değişimin başarılı olabilmesi için değişim sırasında öğretmenlere nasıl yaklaşması gerektiği ortaya konacaktır. Örneğin, çalışmanın sonuçları “duygusal” DB'nin öğretmenler üzerinde daha fazla etkiye sahip olduğunu göstermekte, işlerini sevdikleri için değişimi destekledikleri sonucuna varılmaktadır. Bu nedenle değişim sırasında öğretmenlerin desteğini almak için iş yükü azaltılabilir veya maaşları arttırılarak işini sevmeleri sağlanabilir. İşlerini sevdikleri için kendilerini değişime daha çok adanlar ve değişim başarı ile sonuçlanabilir.

Son olarak, çalışmanın DB üzerine araştırmalar için çıkarımları vardır. Bu çalışma, duygusal DB'nin normatif DB ile pozitif, devamlılık DB ile negatif korelasyon gösterdiğini gösteren bulguları açısından DB literatürünü desteklemiştir (Cunningham, 2006; Raeder & Bokova, 2019). Ayrıca, bu çalışma BDTM ile ilgili literatüre ve öğretmenlerin eğitimsel değişime bakış açılarına katkıda bulunmuştur.

2. YÖNTEM

2.1 Çalışmanın Tasarımı

Bu araştırma ilişkisel bir araştırma olarak tasarlanmıştır. Çalışma, öğretmenlerin DB'si ile BDTM'nin niyet bileşenleri arasındaki ilişkileri araştırmıştır. Yani tutum

(öğretmenlerin değişime yönelik tutumu), algılanan norm (okul kültürü), özyeterlik (öğretmenlerin değişim özyeterliği) ve öğretmenlerin DB'si arasındaki ilişki incelenmiştir. Bu çalışmanın yordayıcı değişkenleri öğretmenlerin değişime yönelik tutumları, okul kültürü ve öğretmenlerin değişim öz-yeterliği iken, ölçüt değişkeni öğretmenlerin DB'sidir.

Fraenkel, Wallen ve Hyun'a (2019) göre, korelasyonel analiz teknikleri çoklu regresyon, faktör analizi, yol analizi ve yapısal modelleme gibi sayısız türde sınıflandırılmaktadır. Öte yandan, çoklu regresyon, araştırmacıların bir ölçüt değişkeni ile iki veya daha fazla öngörücü değişkenin ideal kombinasyonu arasındaki ilişkiyi keşfetmesine olanak tanıyan bir teknik olduğu için bu çalışma için uygundur.

2.2 Örneklem Prosedürü ve Katılımcıların Demografik Özellikleri

Bu çalışmanın hedef kitlesi ilk başta Türkiye'nin Ankara ilindeki K-12'deki devlet okulu öğretmenleridir. Örneklem toplama yöntemi olarak tesadüfi olmayan örneklem yöntemlerinden yüz yüze kolayda örneklem yöntemiyle verilerin toplanması amaçlanmıştır. Kolayda örneklem yönteminin tercih edilmesinin nedeni, bu yöntemle veri toplamanın daha kolay olduğundandır.

Tablo 3.1'de görüldüğü gibi okulların özellikleri, katılımcılardan elde edilen bilgilerden ayrı olarak belirlenmiştir. Buna göre araştırmaya katılan öğretmenler 142 (%22,1) ilkokul öğretmeni, 253 (%39,4) ortaokul öğretmeni ve 247 (%38,5) lise öğretmeni. Araştırmaya katılan öğretmenlerin okuldaki öğretmen sayıları farklılık göstermekle birlikte bir okulda en az 10, en fazla 350 öğretmen bulunmaktadır ($Ort.= 43.80$, $SS=29.06$). Aynı zamanda okullardaki öğrenci sayıları da değişmektedir. Bir okulda en az 97 öğrenci bulunurken bu sayı maksimum 2500 öğrenciye kadar çıkmaktadır ($Ort.= 684.21$, $SS=475.77$).

Katılımcıların genel demografik bilgileri Tablo 3.2'de verilmiştir. Araştırmaya katılanların çoğu kadındır (%79,3). İlkokul ($Ort. = 35,0$, $SS = 6.6$), ortaokul ($Ort. = 33.7$, $SS = 5.4$) ve lise ($Ort. = 34.8$, $SS = 6.1$) kademelerinden katılan öğretmenlerin

yaş ortalamaları kendi aralarında benzer iken, her okul kademesi toplamına benzer ($Ort. = 34.5$, $SS = 6.0$), Ayrıca öğretmenlerin yaş aralığının 23 ile 64 arasında olduğu görülmüştür. Katılımcıların, ağırlıklı olarak ilkokul düzeyinde ($Ort. = 11.2$, $SS = 6.1$), daha sonra lise düzeyinde ($Ort. = 9.8$, $SS = 5.3$) ve en düşük olduğu ortaokul düzeyinde ($Ort. = 10.2$, $SS = 6.3$) çalıştıkları görülmüştür. Öğretmenlerin görev durumlarına bakıldığında 642 öğretmenin 27'sinin (%4,2) sözleşmeli öğretmen, 565'inin (%88,0) öğretmen ve 50'sinin (%7,8) sözleşmeli öğretmen olduğu görüldü. Ayrıca öğretmenlere idari görevleri olup olmadığı sorulduğunda 642 öğretmenden 20'sinin (%3,1) müdür, 70'inin (%10,9) müdür yardımcısı olduğu ve 552'sinin (%86,0) idari görevde bulunmadığı görülmüştür. Ayrıca katılımcıların medeni durumları incelendiğinde 642 öğretmenden 103'ünün (%16,0) bekar, 23'ünün (%3,6) evli ve 516'sının (%80,4) boşanmış olduğu görülmüştür.

2.3 Veri Toplama Prosedürü

Veri toplama sürecine başlamadan önce , ölçekleri kullanmak için ölçek geliştiricilerinden ve katılımcılara ölçeği uygulamak için Orta Doğu Teknik Üniversitesi İnsan Denekleri Etik Kurulu'ndan gerekli izinler alınmıştır. Ölçeğin çevrimiçi versiyonu, Orta Doğu Teknik Üniversitesi tarafından lisansüstü öğrencilere sağlanan çevrimiçi bir ölçek aracı olan LimeSurvey ile oluşturulmuştur. Çevrimiçi ölçek, onam formuyla birlikte altı bölümden oluşur ve LimeSurvey tarafından sağlanan bir bağlantı aracılığıyla erişilebilir. Ölçek, onam formu doldurulmadan başlamamaktadır; bu nedenle tüm katılımcılar araştırmaya gönüllü olarak katıldıklarını ve bilgilendirilmiş onam formunu onayladıklarını beyan etmişlerdir (bkz. Ek B). Daha sonra katılımcının demografik bilgilerinin yer aldığı bölüm bulunmaktadır (bkz. Ek G). Bu bölümde katılımcılar kendileri ile ilgili 11 maddeyi yanıtlamışlardır. Çalışma için gerekli ve eksiksiz olması gereken demografik bilgiler bölümündeki tüm maddeler de zorunlu olacak şekilde ayarlanmıştır. Daha sonra katılımcılar sırasıyla Tutum Ölçeği, Algılanan Norm Ölçeği, Öz-yeterlik Ölçeği ve Değişime Bağlılık Ölçeğini doldurarak ölçeği tamamlamışlardır. Online ölçek Instagram ve öğretmen Facebook gruplarında link

aracılığıyla paylaşılmıştır ve veri toplama 2021-2022 eğitim-öğretim yılının bahar dönemi olan Nisan 2022'de üç hafta sürmüştür. Toplanan tüm veriler anonim olarak saklanmıştır. Katılımcılar istedikleri zaman ölçekten çıkabilmişlerdir. Ayrıca ölçeğin toplam 57 maddeden oluşması nedeniyle katılımcıların ölçeği tamamlaması için 25 dakikanın yeterli olacağı belirtilmiştir.

2.4 Veri Toplama Araçları

2.4.1 Tutum Ölçeği

Bu çalışmanın yordayıcı değişkenlerinden olan öğretmenlerin değişime yönelik tutumlarını (BDTM'de tutum) ölçmek için Kondakçı, Zayim ve Çalışkan tarafından 2013 yılında geliştirilen Değişime Hazır Olma Ölçeği kullanılmıştır. Değişime karşı tutum ve değişime hazır olma (DHO) benzer kavramlar olduğundan, tutumu ölçmek için değişime hazırlık ölçeği kullanmanın bir sakıncası yoktur. Bu araç, hazırlığı bireysel düzeyde ölçer, çünkü değişim faaliyetleri kuruluşlar içindeki bireyler tarafından başlatılır ve yürütülür. Ölçekte 5'li Likert tipi 12 madde bulunmaktadır.

2.4.2 Algılanan Norm Ölçeği

Bu çalışmanın bir diğer yordayıcı değişkeni olan algılanan norm, bu çalışmada Algılanan Norm Ölçeği olarak adlandırılan Okul Kültürü Ölçeği'nin iki boyutu ile ölçülmüştür. 2005 yılında Terzi tarafından geliştirilen Okul Kültürü Ölçeği orijinal olarak 4 boyut ve 29 maddeden oluşmakta olup 5'li Likert tipi bir ölçektir. Bu dört boyut destek, bürokratik, başarı ve görevdir. Araştırmada bu boyutlar işlevsel olduğu için araştırmacı bu çalışma için destek ve başarı boyutlarını seçmiştir.

2.4.3 Öz-yeterlik Ölçeği

Bu çalışmada öz-yeterlik ölçeği olarak adlandırılan değişim sırasındaki öz-yeterlikleri (BDTM'de öz-yeterlik), Holt, Armenakis , Feild ve Harris (2007a) tarafından geliştirilmiş ve Çalışkan (2019) tarafından Türkçeye uyarlanmıştır . Ölçeğin uyarlanmış hali, 5'li Likert ölçeği ile dört boyut ve 25 maddeden

oluşmaktadır. Örgütsel değişime hazırlık ölçeğinin dört boyutu vardır: uygunluk, yönetim desteği, kişisel değerlik ve değişim yeterliliği. Bu çalışmada öğretmenlerin değişim öz-yeterlikleri ölçüldüğü için araştırmacı tarafından sadece değişim yeterliliği boyutunun kullanılmasına karar verilmiştir.

2.4.4 Değişime Bağlılık Ölçeği

Bu çalışmanın ölçüt değişkeni, Herscovitch ve Meyer (2002) tarafından oluşturulan ve Toprak ve Aydın (2015) tarafından Türkçeye uyarlanan Değişime Bağlılık Ölçeği ile ölçülen öğretmenlerin DB'sidir (BDTM'deki niyet). Ölçeğin Türkçeye uyarlanmış versiyonu, 5'li Likert ölçeği ile üç boyut ve 16 madde içermektedir. DB aracının boyutları duyuşsal (1-6 madde), normatif (7-11 madde) ve devam (12-16 madde) şeklindedir.

2.5 Veri Analizi

Analiz sürecinde araştırmacı eksik veri kontrolünü ve veri temizliğini yapmıştır. DFA'daki hata kovaryansları için modifikasyon indeks sonuçları elde edilebilmesi için 40 katılımcıdan alınan veriler çalışmadan çıkarılmıştır. Daha sonra, veri analizi için hem tanımlayıcı istatistikler hem de çıkarımsal istatistikler kullanılmıştır. Veri analizi, en son sürüm olan IBM SPSS Statistics 28.0.0 yardımı ile yapılmıştır. Birincil analizler yapılmadan önce, katılımcılara en son sürüm olan IBM SPSS AMOS 26.0 Yazılım Paketi ile uygulanan ölçeğin faktör yapısını belirlemek için Doğrulamalı Faktör Analizi (DFA) yapılmıştır. Ölçüt değişkeninin üç boyutunun (değişime bağlılık) üç yordayıcı değişken (tutum, algılanan normlar ve öz-yeterlik) tarafından nasıl tahmin edilebileceğini incelemek için çalışmada üç hiyerarşik regresyon analizi kullanılmıştır. Sonuç olarak, Tip I hata oranından kaçınmak için anlamlılık düzeyi (α) yeniden düzenlenerek kritik olan .017, alfa düzeyi üçe bölünerek ($.05/3 = .017$) belirlenmiştir (Field, 2017).

3. SONUÇLAR

Bu çalışmadaki sürekli değişkenler için ortalamalar, standart sapmalar ve iki değişkenli korelasyonlar değerlendirildi. Tablo 4.1, bu çalışmada incelenen sürekli değişkenlerin ortalamalarını ve standart sapmalarını göstermektedir. Tabloda görüldüğü gibi öğretmenlerin yaş ortalaması 34'tür (*Ort.* = 34.45 , *SS* = 5.98). Örneklemdaki öğretmenlerin yaklaşık on yıllık deneyimi vardır (*Ort.* = 10.26 , *SS* = 5.86). Ortalama öğretmen büyüklüğü 43 (*Ort.* = 43.80 , *SS* = 29.07) iken, ortalama öğrenci büyüklüğü 684 (*Ort.* = 684.21 , *SS* = 475.77) idi. Bilişsel boyut (*Ort.* = 4.09, *SS* = .83), DHO boyutları arasında en yüksek ortalamaya sahipti. Ardından, küçük bir farkla sırasıyla niyetsel DHO (*Ort.* = 3.99, *SS* = .76) ve duygusal DHO (*Ort.* = 3.98, *SS* = .97) izledi. Okul kültürü boyutları için başarı kültürünün ortalaması (*Ort.* = 3.52 , *SS* = .92) destek kültürü ortalamasından (*Ort.* = 3.39 , *SS* = .90) yüksektir. Değişim etkinliği açısından, ortalama puanı 4.18'dir (*Ort.* = 4.18, *SS* = .63). Duygusal DB (*Ort.* = 3.69 , *SS* = 1.05), normatif DB (*Ort.* = 2.95 , *SS* = .69) ve süreklilik DB (*Ort.* = 2.86 , *SS* = .51) için ortalama puanlar en yüksekten en düşüğe sıralanabilir.

Bu çalışmanın değişkenleri arasında ilişkilerin olup olmadığını belirlemek için çoklu regresyon analizi kullanılmıştır. Bu çalışmada, çoklu regresyon analizi türlerinden biri olan hiyerarşik çoklu regresyon kullanılmıştır. Bu çalışmada ölçüt değişkeni, duygusal DB, normatif DB ve devam DB olarak sınıflandırılan değişime bağılıktır (DB). Diğer tüm değişkenler yordayıcı değişkenlerdir (örneğin, demografik değişkenler, DHO boyutları, okul kültürü boyutları, değişim etkinliği). Çalışmanın birden fazla hiyerarşik çoklu regresyon analizi içermesi nedeniyle bu çalışmada Bonferroni düzeltmesine ihtiyaç duyulmuştur. Bonferroni düzeltmesi, çeşitli bağımlı veya bağımsız istatistiksel testler aynı anda tek bir veri seti üzerinde çalıştırıldığında, anlamlılık düzeyi olarak da bilinen p değerlerinin bir düzenlemesidir. Bonferroni düzeltmesini belirlemek için , yapılan istatistiksel testlerin sayısına bölünerek .05 kritik önem düzeyi düzenlenmiştir. Böylece üç ayrı

hiyerarşik çoklu regresyon analizi yapıldığından Bonferroni düzeltmesi ile anlamlılık düzeyi .017 (.05/3) olarak belirlenmiştir (Armstrong, 2014).

Hiyerarşik çoklu regresyon analizleri yapılmadan önce artıkların normalliği, eş varyanslılığı ve doğrusallığı, hataların bağımsızlığı, çoklu doğrusallığın yokluğu ve etkili gözlemler gibi varsayımlar test edilmiştir. Bu çalışma sonuçlarını etkileyecek herhangi bir aykırı değer yoktu.

Duyuşsal DB için genel modelin anlamlı olup olmadığı belirlenmiştir. Bunun için F ve p hesaplandı. Genel model anlamlıdır ($F(11,630) = 37.38, p < .017$). Bu, BDTM bileşenlerinin (bilişsel DHO, duygusal DHO, niyetel DHO, destek kültürü, başarı kültürü ve değişim etkinliği) okul demografisi değişkenleri, öğretmen demografisi değişkenleri ve beklenti düzeyini kontrol ettikten sonra "duygusal" DB'yi önemli ölçüde öngördüğü anlamına gelir. Ayrıca en iyi yordayıcıyı belirlemek için Tablo 4.9'da gösterildiği gibi sr^2 incelenmiştir. Bu nedenle bilişsel DHO, duygusal boyutu tahmin etmenin en dikkate değer ve anlamlı yordayıcısıdır.

Normatif DB için genel model anlamlıdır ($F(11,630) = 3.47, p < .017$). Okul demografisi, öğretmen demografisi ve BDTM bileşenlerinin beklenti düzeyini kontrol ettikten sonra, BDTM bileşenlerinin (bilişsel DHO, duygusal DHO, niyetel DHO, destek kültürü, başarı kültürü ve değişim etkinliği) "normatif" DB'yi önemli ölçüde yordadığını gösterir. Ek olarak, Tablo 4.10'da gösterildiği gibi en iyi tahmin ediciyi bulmak için sr^2 incelenmiştir. Bu nedenle, normatif boyutu tahmin etmek için en göze çarpan ve anlamlı yordayıcı bilişsel DHO'dur.

Devamlılık DB'si için genel model anlamlıdır ($F(11,630) = 2.38, p < .017$). BDTM bileşenlerinin (bilişsel DHO, duygusal DHO, niyetel DHO, destek kültürü, başarı kültürü ve değişim etkinliği), okul demografisi, öğretmen demografisi ve BDTM bileşenlerinin beklenti düzeyi için kontrol edildikten sonra "devam eden" DB'yi önemli ölçüde öngördüğünü göstermektedir. . Ek olarak, sr^2 , Tablo 4.11'de gösterildiği gibi en iyi tahmin ediciyi belirlemek için test edildi. Bu nedenle, duygusal DHO, devam boyutunda en belirgin ve en güçlü yordayıcıdır.

4. TARTIŞMA

4.1 Sonuçların Tartışılması

3 ölçüt değişkenin hiyerarşik regresyon analizi sonuçları birlikte değerlendirildiğinde, diğer çalışmalar (Cimili-Gök ve Özçetin , 2021; Foks , 2015; Sezgin , 2010; Toprak ve Aydın , 2015) doğrultusunda varyans büyüklükleri şöyledir: Bu çalışmada en önemliden en küçüğe doğru sıralandığında, duygusal DB %40 ile ilk sırada yer almakta, bunu %6 ile normatif DB ve %4 ile devam DB izlemektedir. Bulguların kanıtladığı gibi, duygusal DB en büyük varyansı sergiledi. Bu, duygusal faktörlerin örgütlerde önemli bir etkiye sahip olmasıyla açıklanabilir (Morin vd., 2015). Buna uygun olarak öğretmenlerin iş ve meslektaşları ile duygusal bir bağ kurdukları gözlemlenmiştir. Daha önce belirtildiği gibi, bir bireyin olumlu duygusal bağlılığı ve değişime bağlılığı, modelin yüksek varyansını açıklayan duygusal DB (Herscovitch & Meyer, 2002) olarak adlandırılır. Öte yandan, normatif DB, değişime yönelik psikolojik durumun seviyesi ve değişime olan bağlılığın psikolojik derecesidir (Herscovitch ve Meyer, 2002). Yani duygusal bir göstergeden çok sorumluluk duygusu ile ilişkili olduğu görülmüştür. Bir öğretmen değişim sırasında yüksek derecede normatif bağlılıktan kaynaklanan bir davranış sergiliyorsa, bunun nedeni değişimin başarıyla tamamlanması gerektiğidir (Bouckennooghe vd., 2014). Ayrıca, duygusal DB ve normatif DB arasında pozitif bir korelasyon vardı (Cunningham, 2006; Jaros , 2010; Raeder & Bokova, 2019). Başka bir deyişle, öğretmenler değişime duygusal olarak bağlı hale geldikçe, bu değişimi gerçekleştirmenin kendi sorumlulukları olduğunu hissederler. Ayrıca, süreklilik DB'si duygusal faktörlere odaklanır çünkü değişimi uygulamaya direnmenin bazı maliyetleri vardır (Herscovitch & Meyer, 2002) ve bu maliyetler bireylerin duygularını etkiler (Jaros , 2010). Öğretmenler, örgütsel üyeliği kaybetmenin yüksek maliyetini düşündükleri için değişimi taahhüt edebilirler (Foks , 2015). Örneğin, (1) ekonomik maliyetler – eğer bir öğretmen değişikliği uygulayamazsa işini kaybedebilir veya (2) sosyal maliyetler – eğer bir öğretmen değişikliğe karşı çıkarsa, değişikliği kabul eden meslektaşları tarafından dışlanabilirler. Ayrıca,

duygusal DB ile devam DB arasında negatif bir ilişki vardı (Cunningham, 2006; Neves, 2011; Raeder ve Bokova, 2019) . Yani duygusal olarak değişime kendini adanmış öğretmenler değişimin başarısız olacağı endişesinden, diğer bir deyişle kaybetme korkusundan kurtulurlar. Kısacası, duygusal ve normatif DB, bireylerin değişimi uygulamak için "özgür" seçimini yansıttıkları için, bireylere olumlu duygular ifade eder. Süreklilik, bireylerdeki nötr veya olumsuz duyguları ifade eder, çünkü DB, değişime direnmenin yüksek maliyetleri nedeniyle değişime "zorlanmış" bir durumu yansıtır (Herscovitch ve Meyer, 2002; Jaros , 2010).

Ayrıca, destek kültürü ve başarı kültürü olan algılanan normun her üç DB modelinde bireysel testleri istatistiksel olarak anlamlı çıkmamıştır. Ayrıca, destek kültürü ile başarı kültürü arasında yüksek bir ilişki vardır. Bu, destek kültürü ve başarı kültürünün büyük ölçüde ilişkili olduğunu ve bunların hiçbirinin DB'nin üç boyutunda önemli miktarda benzersiz varyansı açıklamadığını ortaya koymaktadır. Bu, destek kültürü ve başarı kültürünün tek boyutlu olarak araştırmaya dahil edilmesi gerektiği anlamına gelmektedir. Bu çalışmada kullanılan Terzi (2005) tarafından geliştirilen algılanan norm ölçeği (okul kültürü ölçeği) başka bir çalışmada da kullanılmıştır. Bu çalışma doğrultusunda Yıldırım'ın (2019) çalışmasından da benzer sonuçlar elde edilmiştir. Hem destek kültürü hem de başarı kültürü benzer konuları ölçtüğü için tek bir boyut olarak o çalışmaya dahil edilmiştir (Yıldırım , 2019).

4.2 Teori ve Uygulama İçin Çıkarımlar

Dünyanın geri kalanı gibi, Türk eğitim sistemi (TES) pandemi koşulları nedeniyle değişti. Değişimin uygulayıcısı olan öğretmenlerin bağlılığı, değişimin başarısını etkileyebilecek bir faktör olarak önerilebilir. Bu nedenle, çalışmanın bulguları, öğretmenlerin DB'sini ve bunun BDTM ile ilişkilerini gösterdiği için önemli pratik sonuçlara sahiptir.

DB'yi genel anlamda ele alırsak, "insanlar ve değişim hedefleri arasındaki hayati baği sağlayan yapıstırıcı" (Conner, 1993, s.147). Bu yapıstırıcının ne olduđu

araştırıldığında, insanların değişimi desteklemelerinin çeşitli nedenleri olduğu gözlemlenmektedir (Herscovitch ve Meyer, 2002). Bazı insanlar işlerini sevdikleri için ya da örgütün amaçları kendi amaçlarıyla örtüştüğü için örgütsel değişime kendini adanmıştır; bu nedenle, değişime katılırlar. Bazı insanlar, kuruluşları onları zorunlu kıldığı için DB'yi gösterir. Öte yandan, bazı insanlar değişime direnirlerse ne kaybedebilecekleri konusunda endişe duyabilirler (Allen ve Meyer, 1990). Literatürde örgütsel değişime bağlılığı etkileyen faktörlerden bazıları şunlardır: örgüt kültürü (Cimili-Gök ve Özçetin , 2021), yönetici ile ilişki (Lim vd., 2021), iş motivasyonu (Lim vd., 2021), değişimle ilgili öz-yeterlik (Chen vd., 2001), DHO (Thien , 2019), değişime yönelik tutumlar (Anggraeni , 2020), liderlik (Giovanita & Mangundjaya , 2017), işten ayrılma niyetleri (Choi & Kwon, 2009). Değişim taahhüdü, bu çalışmada kullanılanlar dışındaki yukarıdaki faktörlerin birleştirilmesiyle de ölçülebilir. Bu çalışma, DB'yi etkileyen değişkenler arasında değişime, organizasyon kültürüne ve değişim etkinliğine yönelik tutumları incelemiştir. Ayrıca değişime bağlılık hem tutum hem de davranış olarak gözlemlenebilir. Bu çalışmada, tanımdan ve DB ölçeği örnek maddelerinden görüldüğü gibi bir tutum ele alınmıştır. Tutum, davranışta karşılık gelen değişiklikler olmaksızın bağlılıkta bir değişikliğe yol açabilir. Öte yandan, bağlılıktaki değişiklikler hem davranıştan hem de tutumdan kaynaklanabilir (Werner vd., 1995).

Okuldaki değişim sürecini engelleyen ve motive eden öğretmenlerin davranışlarını belirlemede müdür ve MEB'e yardımcı olmaktadır. Bu sonuçlara dayanarak, değişimin başarılı olması için okullar için pratik çıkarımlar yapılabilir. Sonuçlar, öğretmenlerin DB'sinde en yüksek varyansın duyuşsal DB'ye sahip olduğunu göstermiştir. Bu nedenle öğretmenlerin duygusal DB'leri önemlidir çünkü DB'leri duygusal faktörleriyle tanımlanır. Buna göre, genel bir bakış açısıyla, öğretmenlerin çalışmalarının müdür tarafından takdir edilmesi (Bahadır Bhujel , 2021; De Castro & Jimenez, 2022) ve değişime ilişkin görüşlerinin alınması (Thornburg & Mungai, 2011) değişiklik sırasında DB'lerini artırmak için çok önemlidir. Ayrıntılı olarak incelendiğinde, duygusal DB'yi etkileyen yordayıcı değişkenlerin boyutlarının

bilişsel DHO, niyetel DHO ve deęişim etkililięi olduęu bulunmuştur. Bu nedenle, TES'de örgütsel bir deęişiklik uygulanırken, öğretmenlerin bir deęişim sürecine (bilişsel DHO), deęişime yönelik hareket etme amaçları (niyetel DHO) ve bu konudaki bilgi ve becerilerine ilişkin olumlu inançları (deęişim yeterlilięi) dikkate alınmalıdır. Bilişsel DHO, duygusal DB üzerinde en fazla etkiye sahip olduęundan, çoęu öğretmenin, deęişimin başarılı olacaęına dair güçlü bir inançları olmadıęında, deęişime daha az baęlı oldukları şeklinde yorumlanabilir (Morin vd., 2015). Okul müdürleri, deęişim durumunda öğretmenlerin deęişime olan inancını, deęişim için hareket etme amaçlarını ve deęişimle ilgili bilgi ihtiyaçlarını göz önünde bulundurmalıdır. Genel olarak, deęişimin başarılı bir şekilde uygulanabilmesi için MEB'in öğretmenlerin deęişime bakış açılarını geliştirmesi, onlara deęişimi uygulama amacı vermesi ve deęişimle ilgili bilgi düzeylerini artırması gerekmektedir. Özellikle öz-yeterlik konusunda öğretmenlerin deęişime yönelik öz-yeterlikleri MEB tarafından düzenlenen seminerlerle artırılabilir. Ancak yapılacak bu seminerler kesinlikle deęişimi ele almalı ve bu konuya özel olmalıdır. Örneęin seminer aşıęıdaki konuları içermelidir; öğretmenlerin deęişim sırasında iletişim becerilerini nasıl artırabilecekleri, deęişim sürecine nasıl dahil olabilecekleri, deęişimin uygulanmasında nasıl rol alabilecekleri vb.

Ayrıca, bu çalışma, yukarıda belirtilen pratik çıkarımlara ek olarak teorik çıkarımlar da sunmaktadır. BDTM'nin bir davranış bilimi olan psikoloji alanında geliştirilmiş bir teori olduęu düşünöldüęünde eğitim alanında kullanılması bu çalışmayı disiplinler arası bir çalışma haline getirmiştir. Bu çalışma, öğretmenlerin DB'sini BDTM ile açıklama açısından literatürde bir ilktir. Bu çalışma literatüre özellikle Türk edebiyatına eğitim ve psikoloji alanlarında katkı sağlamıştır.

4.3 Gelecekteki Araştırmalar için Öneriler

Bu çalışmanın en önemli sınırlılıęı, tüm örgütsel deęişikliklerin farklı olması (Beycioęlu ve Kondakçı, 2020) ve ayrıca bireylerin deęişim sürecini çok farklı deneyimlemeleridir. Öğretmenlerin tümü, koronavirüs pandemisi sırasında büyük etkisi olan çeşitli deęişikliklerden geçti (Kumar vd., 2021). Bu büyük deęişimle

ilgili herkesin farklı deneyimler yaşadığı düşünüldüğünde, bu değişimin son derece kişisel sonuçları olduğu düşünülebilir. Bu nedenle, bu çalışmanın bulgularını genellemek zordur. Öğretmenler arasındaki tek ortak nokta, hepsinin büyük bir değişimden geçmiş olmaları; bunun dışında okulları, yaşadıkları şehirler vs. farklıdır. Buna ek olarak, bu çalışmanın katılımcıları, hedef kitlenin üyelerinin karşılaşacağı Instagram, Facebook vb. sosyal medya platformlarında paylaşılan bağlantılar aracılığıyla iletişime geçilmiştir. Bu nedenle öğretmenler ölçeğe bir bağlantı aracılığıyla ulaşmışlardır. Diğer öğretmenler ise ölçek bağlantısıyla karşılaşmadıkları için katılamamışlardır. Ölçek bağlantısına rastlamayan bazı öğretmenlerin dışlanması sonucunda kapsam yanlılığı oluşmuş olabilir. Sonuç olarak, bu çalışmanın bulguları diğer örneklem için uygun olmayabileceğinden örneklemin temsil ettiği evrene genellenmemelidir. Bu sınırlamalardan kaçınmak için, gelecekteki çalışmalar aynı örgütsel değişime uğramış tek bir okuldaki öğretmenlere odaklanabilir.

İkincisi, okul kültürü bloğu istatistiksel olarak anlamlı sonuçlar vermesine rağmen, okul kültürünün boyutları olan destek kültürü ve başarı kültürü bireysel testler sonucunda her üç DB analizinde de anlamlı değerler vermemiştir. Bunun benzer kültürel özellikleri iki boyutta ölçmesinden kaynaklandığı düşünülmektedir. Bu çalışmada kullanılan ölçeğin başka bir çalışmada kullanılan versiyonunda bu iki boyut tek boyut olarak alınmıştır (Yıldırım , 2019). Bu nedenle Terzi (2005) tarafından geliştirilen algılanan norm ölçeğinin (okul kültürü ölçeği) kullanılacağı çalışmalarda bu iki boyutun tek boyut olarak alınması araştırma sonuçlarındaki pürüzlerin önüne geçecektir.

Ayrıca çalışma örneklemini devlet okulları ile sınırlandırılmıştır. Özel okullar, Türkiye'de daha fazla imkân ve olanaklara sahip oldukları için farklı örgüt kültürlerine sahiptirler; bu nedenle, sonraki araştırmalara dahil edilebilirler (Yavuz ve Yılmaz, 2012). Okul kültürü öğretmenlerin DB'sini etkilediğinden, özel okullar söz konusu olduğunda çalışma sonuçları farklı sonuçlar doğurabilir.

Son olarak, regresyon analizleri sonucunda tüm yordayıcı deęiřkenler (tutum, algılanan norm ve öz-yeterlik) istatistiksel olarak anlamlı sonuçlar vermiřtir. Bununla birlikte, üç DB varyansının tümü, özellikle en düşük ikisi, normatif DB (%6) ve devam DB'si (%4), çok yüksek sonuçlar vermedi ve modeli yüksek düzeyde açıklayamadı. Bunun nedeni, aday öğretmenlerin okula yeni başladıkları için deęiřime karřı olumsuz tutumlara sahip olacaklarını (Benęea , 2013; Cimili-Gök ve Özçetin , 2021; Kondakçı vd. , 2015) ve bu nedenle düşük DB seviyelerine sahip oldukları düşünölmektedir. Bu nedenle yeni öğretmenlerin örneklemden çıkarılması ileriki çalışmalarda daha iyi sonuçlar sağlayabilir. Ayrıca deęiřim sırasında öğretmenler karar verme sürecine katılırlarsa (Ceylan vd., 2021), deęiřime normatif baęlılıkları varyansta daha yüksek olabilir.

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YAZARIN / AUTHOR

Soyadı / Surname : Karakuş
Adı / Name : Gülsüm Betül
Bölümü / Department : Eğitim Bilimleri, Eğitim Yönetimi ve Planlaması / Educational Sciences, Educational Administration and Planning

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