THE RELATIONSHIP BETWEEN TEACHER REFLECTION AND TEACHER AUTONOMY WITH RESPECT TO CERTAIN VARIABLES

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ABSTRACT

THE RELATIONSHIP BETWEEN TEACHER REFLECTION AND TEACHER AUTONOMY WITH RESPECT TO CERTAIN VARIABLES

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This study aims to investigate whether there is a significant relationship between teacher reflection and teacher autonomy and among their subscales; and whether there is a significant difference in teacher reflection and teacher autonomy scores according to gender and years of teaching experience. The sample of the study, which is determined by means of cluster random sampling, is 284 classroom teachers (1-4 grades) in 15 elementary schools in three districts (Yenimahalle, Altındağ, Keçiören) of Ankara in the 2016-2017 academic year. Correlational research design was used in the study; accordingly, data was collected via the Teacher Autonomy Scale developed by Ulaş and Aksu (2015) and Teacher Reflection Scale developed by Akbari, Ramin, Behzadpoor and Dadvand (2010) and adapted to Turkish by Korumaz (2012). Since Teacher Reflection Scale was originally developed for English teachers, applicability to elementary school teachers by researchers through the current study. Furthermore, the data was analyzed by means of independent t-test and one-way Analysis of Varyans (ANOVA) in order
to determine whether teacher reflection and teacher autonomy scores differ according to gender, teaching experience, and teaching grade level.

The results of the study revealed a statistically significant positive correlation between teacher reflection and teacher autonomy and among their subscales. Furthermore, teacher reflection scores significantly differed according to gender. On the other hand, teacher reflection scores did not differ according to years of experience and teaching grade level, whereas teacher autonomy did not differ according to gender, years of experience and teaching grade level.

Based on the results of the study, it is concluded that teachers who are more engaged in reflective practice also tend to perceive higher autonomy in their working environment, and vice versa. Furthermore, it can be claimed that female teachers were more engaged in reflective practice than their male counterparts considering all of the means of measurement.

Based on the results of the study, the conclusion implicate that teachers should be educated as reflective practitioners and they need to be given more space in the school system for autonomous decision-making in all stages of educational policies to realize themselves as professionals. In such an educational ecosystem, teachers will be able to act as educational leaders.

**Keywords:** Teacher Reflection, teacher autonomy, gender, years of experience, teaching grade, classroom teachers
ÖZ

YANSITICI ÖĞRETİM VE ÖĞRETMEN ÖZERKLIĞİ ARASINDAKI İLİŞKİNİN BELIRLİ DEĞİŞİKENLERE GÖRE İNCELENMESİ

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çalışmada araştırmacı tarafından incelenmiştir. Buna ek olarak, yansıtıcı öğretim ve öğretmen özveriliği puanlarının cinsiyete, öğretim tecrübesine ve öğretim yapılan sınıf düzeyine göre anlamlı bir fark gösterdiğini belirlemek için veriler tek yönlü varyans analizi ve bağımsız t-test ile analiz edilmiştir.


Çalışmanın sonuçlarına bağlı olarak, öğretmenlerin yansıtıcı uygulayıcı olarak yetiştirilmesi ve öğretmenlere eğitim konularındaki karar alım süreçlerinde daha fazla özverili alanı açılması için eğitim ile ilgili taraflara gerekli adımların atılması yönünde önerilerde bulunulmuştur. Boyle bir eğitim ekosisteminde öğretmenler eğitim liderleri olarak rol oynayabilecektir.

Anahtar Kelimeler: yansıtıcı öğretim, öğretmen özveriliği, cinsiyet, öğretmenlik deneyimi, sınıf düzeyi, sınıf öğretmenleri
To My Family
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ADFC  Autonomy in Determining the Framework of the Curriculum
AIPI  Autonomy in Instructional Planning and Implementation
ANOVA Analysis of Varyans
APD  Autonomy in Professional Development
CFA  Confirmatory Factor Analysis
CFI  Comparative Fit Index
EFA  Explanatory Factor Analysis
ELTRI English Language Teacher Reflective Inventory
EM  Expectation Maximization
KMO  Kaiser Meyer Olkin
MANOVA  Multivariate Analysis of Varyans
NNFI  Non-Normed Fit Index
RMSEA Root Mean Square Error of Approximation
SPSS Statistical Package for Social Sciences
TAST Teacher Autonomy Scale for Turkish
TEA  Turkish Education Association
TRS  Teacher Reflection Scale
CHAPTER I

INTRODUCTION

“No experience having meaning is possible without some element of thought”

John Dewey (1944, p. 143).

In this part, the main problem and base arguments of the study are presented. To this aim, this section deals with the problem statement, following purpose and significance of the study and definition of terms.

1.1. Background of the Study

In today’s world, teachers face very complex, unpredictable and problematic situations in their working environments and they are expected to make instantaneous judgments in the most effective way by considering diverse aspects. That’s why teaching is continuously evolving as a profession that requires highly motivated, skilled individuals who are ready to meet the demands of present day society (Zhao, 2009). As part of this evolving process of teaching profession, reflection is acknowledged and defined as a critical characteristic of an effective teacher in current teacher education programs in many countries, and that is the reason why reflective practice plays a crucial role in teacher education (Akbari et al., 2010). Moreover, Larrivee (2008) states that in many countries the ability to reflect on teaching practice is acknowledged as one of the standards for teaching.

Reflective thinking, theorized by educational philosopher John Dewey, as a
ground of reflective teaching has become a leading concept in teaching and learning environments. In his book, “How we think”, Dewey approaches reflection as a form of thinking and he describes reflective thought as “active, persistent, and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it and the future conclusions to which it tends” (1933, p. 7). In accordance with this definition, Dewey (1933) explains that teaching is not a routine sequence of predetermined acts, but a context-sensitive, creative intellectual activity in which teachers actively think on and seek solutions to problems in each unique situation.

Based on Dewey’s theory, Schön (1983, 1987) proposes models of reflection in practice and defines teacher’s role as a reflective practitioner. Reflection is a view that has emerged based on a constructionist approach of reality in which the practitioner is seen as constructing the situations in practice, and individuals’ perceptions, appreciations and beliefs are rooted in the worlds of their own making (Schön, 1987). Accordingly, Schön (1990) advocates that “the problems of real world practice do not present themselves to practitioners as well formed structures” (p.4) and that is why the prevailing approach of “technical rationality”, which is based on an objectivist view, does not meet the needs of a changing society full of complex and unpredictable situations.

Kumaravadivelu (2003) states that teachers who may not have the ability, resources, or willingness to explore self-initiated, innovative teaching strategies feel safe regarding teachers as passive technicians, since this approach reduces teacher’s role to implementing what is already prescribed for them by theorists. Giroux (1988) also describes being a technician teacher as being responsible only for the implementation of curriculum rather than developing it in line with the needs of their students or changing contexts, and
claims that teachers are being reduced to this status.

Reflective teaching movement is considered a reaction to the technicist view of teaching practice under the strong influences of “bureaucracy, centralization, and control” which advocate the teacher's role as just a transmitter and implementer of what is prescribed for them (Fathi & Behzadpour, 2011; Kumaravadivelu, 2003; Schön, 1983, 1987; Zeichner & Liston, 1996). While the technicist approach to teaching is disempowering for teachers, teachers as reflective practitioners are seen as producers of knowledge and problem-solvers in their own setting (Zeichner & Liston, 1996). Reflection in education requires teachers who think systematically and analyze the teaching environment in a logical, rational, and gradual manner (Korthagen, 1993). Since reflection on practice is seen as a basis for learning (Killeavy & Moloney, 2010), reflective teaching can be considered an important factor in the professional development of teachers. In that sense, teachers as reflective practitioners are always in a motivation to ask themselves questions about what they did and how they could have done it better, and to think critically about what education policies really mean in context. Accordingly, reflective practitioners are described as effective teachers (Marie Dianne, 2013; Parsons & Brown, 2002) who are involved in the constant practice of reflective thinking (Marie Dianne, 2013); and individuals who have a high awareness about what they are doing and why they make decisions and who review the effects of their actions (Cruickshank, 1987; Parsons & Brown, 2002). Moreover, Fullan (1993) puts forward that it is only through reflection that teachers will begin to question their own practices and think differently about teaching and learning.

On the other hand, most teachers fail to approach teaching from a reflective
stance (Parsons & Brown, 2002). According to Zeichner and Liston (1996), society and its institutions aspire to maintain the reigning portrayal of teacher as technician by ignoring the knowledge and expertise of teachers, which constitutes a striking dilemma with the role of teacher as a professional decision maker. In that sense, Dewey (1933) advocates that “teachers are not just passive curriculum implementers, but they can also play an active role in curriculum design and educational reform” (p. 49). Agreeing with Dewey, Schön (1983, 1987) believes in the necessity of replacing the dominant role of teacher as technician with the teacher as autonomous decision maker or reflective practitioner, and Calderhead (1989) defines reflection as emancipation and professional autonomy (p.43). Moreover, Schön’s (1983, 1987) work reveals that the goal of reflective practice is to become an autonomous decision maker who continuously learns from experience and reconstructs knowledge through reflection. On the other hand, Giroux (1988) puts forward the idea that teachers as reflective practitioners should take an active role in curriculum development process. Similarly, Zeichner and Liston (1996) describe the teacher as reflective practitioner as an individual who “questions the assumptions and values he or she brings to teaching, takes part in curriculum development and is involved in school change efforts, and takes responsibility for his or her own professional development” (p. 6).

Thanks to reflective approach to teaching, a more democratic perspective to teaching profession is made possible since it gives voice to teachers as practitioners and respects the type of their knowledge background (Akbari, 2005). Moreover, Akbari (2005) describes the shift from a positivist-oriented perspective to a constructivist-oriented one, which the reflective approach is based on, as “a liberatory move which gives teachers more autonomy and
confidence in the decisions they make in their classes” (p. 5). Farrell (2004) also indicates that teachers can become more empowered decision makers and be more eager to take more responsibility for shaping their practice by engaging in reflective practice. With regards to the empowerment of teachers, action research as an integral part of reflective teaching is considered to be a vehicle that helps teachers to become researchers of their own; they can be autonomous and have their own voice in order to think over the particularities of problematic situations (Farrell, 2004; Zeichner & Liston, 1996). All in all, as reflective practice can be a way to help teachers to foster their effectiveness as well as independence (Noormohammadi, 2014), which means having an active role in the processes of educational decisions, it is conceivable to think about a relationship between perceived teacher autonomy and teacher reflection. Teachers who are engaged in reflective practice in their teaching feel responsible and take initiative both in school change efforts and in their own professional development (Zeichner & Liston, 1996), and “see themselves as agents of change, capable of understanding not only what is, but also working to create what should be” (Jay & Johnson, 2002, p. 79). Taking initiative requires a certain extent of autonomy in a working environment. Surgrue (2011) states that the teacher profile as reflective and self-determining life-long learning practitioner with a high sense of work autonomy has become a commonly used international discourse. These characteristics of teacher as being reflective, self-determining, life-long learning practitioner have been emphasized in the perspective of teachers as reflective practitioners in related literature.

In his action research, Bustingorry (2008) reveals autonomy as an ability which can be developed by improving the professional capacity of teachers. This
professional capacity can be regarded as being a reflective practitioner since it is acknowledged as an efficacious role of teacher. From another aspect, developing the habit of engaging in systematic reflection about teaching practice can help teachers to take control of their work (Larrivee, 2008). These perspectives can lead us to the idea that improving both the reflection and autonomous feeling of teachers can make a two-way positive impact.

However, especially in countries where a highly centralized system prevails such as Turkey, teachers are expected to obey accepted truths. Questioning those in authority in a critical manner may be interpreted as showing disrespect to the authority. In such an environment, developing teacher autonomy is inhibited since it is approached from the aspects of “freedom from control by others”. However, teacher autonomy is a deeper motivational factor and a need in today’s world for teacher professionalism. In this sense, teacher autonomy has a great value in education since it is closely connected to a teacher’s professional status (Pearson & Moomaw, 2005).

Larrivee (2008) states that teachers who are under pressure to follow routine and impulsive acts can become powerless to reflect their voices and styles in their teaching and this situation leads them to burnout. In this respect, the importance of autonomy in education stage is getting more and more acknowledged. Teacher autonomy is viewed as a key factor to empower teaching profession (Melenyzer, 1990; Short, 1994) and granting the autonomy is stated as a prominent starting point to solve current school problems (Short, 1994). Moreover, Ruddick and Hopkins indicate that “good teachers are necessarily autonomous in professional judgement.” (1985, p. 104, as cited in Zeichner & Liston, 1996). On the other hand, in PISA and TALIS studies, which are conducted by OECD, teacher autonomy is considered a significant element
of teacher professionalism and one of the predictive factors of quality in education system. In the new democratic professionalism, it is significantly emphasized that there is a need for teachers who are able to assert control over all the prominent parts of their work such as learning and teaching conditions, pedagogical knowledge and professional development and education policy broadly defined from institutional to national and supra-national level (Evers & Kneyber, 2016).

This study is expected to yield results which will shed light on a way of understanding teachers’ reflection ability in the perspective of autonomy feeling in their work environment, by investigating the relationship between teacher reflection and teachers’ perceived autonomy. On the other hand, by investigating both teacher reflection and teachers’ perceived autonomy according to selected variables such as gender, years of teaching experience and teaching grade level, the findings can contribute to a better understanding of the characteristics of teachers, and construct a new perspective for educators to improve teacher reflection and their autonomy feeling.

On the other hand, the current study was conducted with elementary school teachers since the elementary school years constitute a critical stage of a children’s education. Moreover, elementary school teachers have a strategic role in developing the basic cognitive, emotional and psychomotor skills of students as they are expected to cover a wide range of subject areas and spend a substantial amount of time with students during such critical ages.

1.2. Purpose of the Study

The purpose of this study is to investigate whether there is a significant relationship between teacher reflection and teachers’ perceived autonomy and
among their subscales. Furthermore, this study aims to determine whether
teacher reflection and teachers’ perceived autonomy differ according to the
demographic characteristics of teachers such as gender, years of teaching
experience and teaching grade level.

1.3. Significance of the Study

Reflective teaching is mostly addressed in language teaching literature both
abroad and in Turkey. That said, reflective perspective to teaching can provide
a better understanding into teaching and learning processes from both a
theoretical and a practical perspective and offer a strong theoretical
foundation to teachers for professional development. Accordingly, this study
aims to broaden the literature of this approach by researching reflective
teaching practices of elementary school teachers. The Turkish version of
Teacher Reflection Scale for English teachers has been tested for applicability
to elementary school teachers by researchers through the current study.

On the other hand, in recent decades, teacher autonomy has become a critical
element for teacher professionalism and has been considered an important
dimension in the quality of teaching environment in international comparative
studies. There is a broad and rich international literature consisting of studies
conducted to investigate teachers’ autonomy perceptions, whereas in Turkey,
the topic has just recently started to gain attention. It is observed that the
concept of autonomy has been used in a very limited context in Turkish
literature. And yet, teacher autonomy approach can provide new and different
perspectives to understand issues in the Turkish education system. Therefore,
this study aims to contribute to teacher autonomy literature on both national
and international levels.
The current study is expected to make a significant contribution to the related literature, theory, research, practice, and policy. Although there are studies in literature covering the relationship between teachers’ job satisfaction, burnout, motivation, problem solving ability and teacher autonomy, the number of studies that investigate teacher reflection in relation to autonomy is very limited. Both teacher reflection and teacher autonomy are the key concepts used in literature in relation to more efficacious teaching and professional development. That is the reason why investigating the relationship between teacher reflection and teacher autonomy can contribute to explanations to the teaching environment both in the perspectives of teachers’ sense of autonomy and reflective practices. The need for teachers who lead the reforms is emphasized in literature, but there are only a few studies that investigate whether teachers are capable of reconstructing knowledge and reflecting on practice; and what is more, there is only one study, which is conducted by Noormohammadi (2014), dealing with the correlation between teacher reflection and perceived autonomy in educational practices. Besides, these studies primarily point to the fact that teacher education is a determiner which develops the reflective abilities of teachers and construct their role as a reflective practitioner; yet this study presents a different and extended approach with the perceived autonomy in work environment in focus.

Furthermore, determining the characteristics such as teachers’ gender, years of teaching experience and teaching grade level in the perspectives of reflection and autonomy can be valuable for teacher education system, as well as for country-wide educational policies.
1.4. Definition of Terms

*Classroom teacher* refers to a teacher who teaches students at grades from 1 to 4.

*Teacher Reflection* refers to the process of classroom teachers becoming more empowered decision makers, engaging in systematic reflections in their practices by thinking, writing, and talking about their teaching; observing the acts of their own and others’ teaching; considering the impact of their teaching on their students’ learning; and taking more responsibility for shaping their practice (Farrell, 2004) whereby they continually learn by their experiences, reconstruct knowledge and understand through reflecting (Schön, 1983, 1987).

*Teacher Autonomy* refers to “teachers’ willingness, capacity and freedom to take control of their own teaching and learning” (Huang, 2005, p. 206).
CHAPTER II

LITERATURE REVIEW

This chapter of the study provides information about the literature concerning teacher reflection and teacher autonomy. Literature is reviewed in two parts; theoretical background and research studies on teacher reflection and teacher autonomy according to specific variables.

2.1. Theoretical Background

Theoretical background of teacher reflection and teacher autonomy is presented in this section.

2.1.1. Teacher Reflection

John Dewey is the pioneer in the theorizing of reflection in education, and his studies (1933), which introduce and develop the “theory of reflective thinking”, have constituted a basis for further research. Dewey defines reflection as a form of thinking and suggests the concepts of impulsive action, routine action, and reflective action as different ways of thinking which lead to action. He defines impulsive action as acting by trial and error without thinking about the process, and routine action as acting based on authority and traditions without questioning. Contrary to these passive processes, he describes reflective action as being actively engaged in the moment. Moreover, reflective action requires a person to take responsibility for personal actions voluntarily and willingly (Larrivee, 2008) and “to be motivated by the need to solve a particular problem” (Griffiths, 2000, p. 540). Griffiths (2000) also states
that teachers involved in routine action may act with preconception and prejudice but teachers involved in reflective action should act with broader considerations of moral and ethical nature.

Rodgers (2002, p. 845) explains the four main characteristics of Dewey’s theory of reflection as follows; Reflection

- is a meaning-making process that moves a learner from one experience into the next with deeper understanding of its relationships with and connections to other experiences and ideas.
- is a systematic, rigorous, disciplined way of thinking, with its roots in scientific inquiry.
- needs to happen in a community, in interaction with others.
- requires attitudes that value the personal and intellectual growth of oneself and of others.

For Dewey, reflective thinking leads teachers to reconsider their actions and thoughts, and see other options while approaching any given situation. Concordantly, he describes three distinctive and crucial characteristics of reflective teachers: open-mindedness, responsibility and whole-heartedness.

Open-mindedness means the ability to remain open to multiple alternative possibilities rather than believing in one single truth, or one right way to follow, (Ostorga, 2006) and refers to the willingness to question the status quo (Fathi & Behzadpour, 2011). Therefore, open-minded teachers are expected to be motivated and willing to consider other perspectives and thoughts in decisions of practice, and search for alternative solutions to problematic situations. Moreover, Ostorga (2006) states that an open-minded teacher continuously questions routines and practices, and reviews their validity and
efficacy. As to the concept of responsibility, Dewey claims that it is being aware of the reverberations of any course of action teachers take in the practice, setting and considering the ways in which their students might be affected morally, socially and psychologically (Fathi & Behzadpour, 2011). Accordingly, responsible teachers think over the process and the results of their actions including who is affected by them and how, and whether the action was efficacious. Lastly, Dewey suggests whole-heartedness in reflective teaching as a kind of dedication. With the characteristics of wholeheartedness, reflective teachers continuously put forth all their effort to make their practice more effective. According to Dewey, when these three characteristics of reflective teaching are successfully combined, teachers definitely become able to improve their teaching practice and knowledge.

Following Dewey, reflective practice has begun to gain more attention in teacher education with the works of Donald Schön (1983, 1987) which address reflective thinking in practice. Schön describes reflective practitioners as teachers who continually learn by their experiences and reconstruct knowledge and understanding through reflecting.

Schön (1983) suggests two critical forms with respect to the process of reflection, which are reflection in action and reflection on action. Reflection in action occurs during the teaching practice and for Schön, a teacher who reflects in action is a researcher in practice context, which is full of uncertainties and dynamic interactions. The process of reflection in action requires teachers to reflect throughout a teaching practice in order to understand how the action happened and what they can do to improve or maintain the situation (Schön, 1987). Furthermore, Schön (1987) states that reflection in action requires teachers to improve their flexibility and creativity to modify the action
consciously and instantaneously. Rather than following the routine procedures and what is applied before, a teacher who is involved in reflection in action constructs his own unique way of teaching in every experiment. On the other hand, what Schön means by reflection on action is thinking back on how practice can be developed after the event. Yet, these two kinds of reflection require considering rational and moral thoughts to make reasoned decisions about preferable ways to act (Hatton & Smith, 1995).

According to Schön (1987), reflection leads a continuous development for teachers through its cyclic process which includes acting, observing, reflecting, inventing and testing. According to Griffiths (2000), the teaching process in Schön’s reflection model “is a complex and sophisticated process, in which the teacher is actively engaged, and has a vital part in shaping, interpreting and changing situations” (p.541). In this sense, teacher as reflective practitioner is an individual who can think over the teaching process, and the reasons and results of actions (Schön, 1987). This thinking and acting process through which teachers solve in-class problems with a creative manner cannot be predetermined, and therefore, cannot be formulated as a guide to be followed by other teachers (Cakcak Tezgiden, 2015).

Lee (2005) summarizes the main steps of reflective thinking process in the educational research studies of reflective movement proponents (Dewey, 1933; Schön, 1987; Pugach & Johnson, 1990; Gagatsis & Patronis, 1990; Eby & Kujawa, 1994; Lee, 2005; Rodgers, 2002). In consideration of the common points in the studies above, which are summarized by Lee (2005), reflective teaching process can be synthesized as follows;

- Observing consciously; being aware of the experience
• Trying to understand the situation; interpreting the experience
• Identifying the problematic situations and questions related to experience; restructuring the problem
• Seeking, generating and predicting possible explanations for the problems or questions posed; ramifying the explanations into full-blown hypotheses
• Experimenting or testing the selected hypotheses; evaluating and reconsidering the implementation process and consequences; getting full awareness

In addition to this general description of reflective practice, Reiman (1999) also describes the term as a process which incorporates problem solving, reconstruction of meaning, and making reflective judgments while individuals are engaged in a significant new activity. Accordingly, reflection is a process through which teachers can develop a habit of continual learning from their experiences by means of framing and reframing the problems in consideration of different perspectives and taking action in the light of such reviewing (Kayapınar & Erkuş, 2009). Moreover, action research is defined as an integral part of reflective teaching (Farrell, 2004). Through action research, teachers become researchers of their own; they can be autonomous and have their own voice in order to think over on the particularities of their problematic situations (Burns, 2005; Farrell, 2004; Zeichner & Liston, 1996).

On the other hand, Schön suggests the concept of teacher as passive technician to define the conduit role of teachers who teach in a routine sequence of prescribed acts. Moreover, he criticizes the role of teacher as passive technician and underlines the need for teachers who are committed, and autonomous decision makers, or reflective practitioners (as cited in Larrivee, 2008). Parallel
with this, Zeichner and Liston (1996) make a clarification of what is real reflective thinking in the teaching process by describing the characteristics of a teacher who is not a reflective practitioner. They state these characteristics as never questioning the goals and values that provide guidance for their work, teaching content that they teach, or never examining their assumptions, thoughts and acts. Accordingly, McGonigal is a teacher who criticizes her way of teaching as “unthinkingly teaching the prescribed curriculum the same passive way for 15 years” in her autobiographical case study (1999, p. 5).

At this point, Zeichner and Liston’s (1996) description of the characteristics of teacher as reflective practitioner enables a clearer understanding. According to these theorists, a teacher as reflective practitioner;

- examines, frames, and attempts to solve the dilemmas of classroom practice;
- is aware of and questions the assumptions and values he or she brings to teaching;
- is attentive to the institutional and cultural contexts in which he or she teaches;
- takes part in curriculum development and is involved in school change efforts;
- takes responsibility for his or her own professional development (p. 6).

Given all these characteristics, it can be concluded that the role of teacher as reflective practitioner is an active and leading role in educational environment.
2.1.2. Teacher Autonomy

Autonomy is defined as a human desire to self-organize experience and behavior, and to act in accordance with the individual’s integrated sense of self (Deci & Ryan, 2000). In this sense, fulfillment of autonomy is considered one of the main factors which have a significant effect on human motivation in self-determination theory literature.

As to the concept of teacher autonomy, which is examined in this study, the term basically refers to the independent existence of teachers raising their critical voices in decision-making processes in an educational environment. In related literature, although there is no consensus about the definition of teacher autonomy, there are perspectives viewing it as an ability/capacity possessed by the teacher and as freedom that is given. Accordingly in the first perspective, teacher autonomy is defined as the ability of teachers to engage in self-directed teaching (Little, 1995); as the capacity to develop professional skills and attitudes in a collaborative manner (Smith, 2000); as the capability of teachers to construct their own teaching condition in freedom (Javadi, 2014); and as decision-making ability (Pearson, 1995; Sentovich, 2004) which allows for teachers’ choice and determination to prevail in critical situations in their working environments. Similarly, Shaw (2002) also claims that the amount of a teacher’s perceived autonomy depends on personal abilities and characteristics. Yet he adds that this amount of autonomy feeling may vary not only depending on internal factors, but also due to external causes such as policy factors, institutional factors and instructional factors. On the other hand, teacher autonomy is also described as the freedom given to teachers enabling them to be active in decisions related to their profession, plan the course contents, organize learning environments and take responsibility for
As we have seen, the term ‘teacher autonomy’ may be used in various ways, with its different dimensions being emphasized as ability, freedom or control. These perspectives are deemed necessary for a well-rounded discussion to reach a comprehensive and deeper understanding about teacher autonomy in educational environments. In that sense, Huang (2005) integrates these conceptual discussions, and suggests a comprehensive definition for teacher autonomy as “teachers’ willingness, capacity and freedom to take control of their own teaching and learning” (p. 206). From this viewpoint, teacher autonomy can be described as a feeling that includes ability, responsibility and freedom, and which depends on both internal and external factors.

Teacher autonomy has gained importance along with the movement of teacher empowerment, and became one of its key elements (Melenyzer, 1990; Short, 1994). Just as in a saying by a teacher, “Autonomy for me is believing in my own ability to do what I want to do, often taking productive, creative steps toward fulfilling my own goals. Autonomy for me is a personal thing, an internal thing, feeling that I have power.” (Sacks & Eisenstein, 1976, p. 7, as cited in Moomaw, 2005). Moreover, Little (1995) puts forward that being autonomous is an important characteristic of successful teachers in the sense of being responsible for their teaching, exercising through continuous reflection and analyzing the highest possible degree of affective and cognitive control of the teaching process, and exploiting the freedom that this provides.

As a critical factor to empower teachers, teacher autonomy enables teachers to be creators of curriculum rather than passive implementers, and furthermore, autonomous teachers construct the curriculum with their students (Castle,
According to Devries and Kohlberg (1987), autonomous teachers are those teachers that know what they are doing and why they are doing: They do not accept to implement the predetermined curriculum the way it is presented to themselves; they prefer to think critically about the curriculum in terms of how efficacious the program is, and if there is a better way of implementation. Accordingly, curricular autonomy refers to having the right to make decisions in selecting curricular materials and teaching methods and in organizing instructional plans and sequences (Ben-Peretz, 1980; LaCoe, 2006; Pearson & Moomaw, 2005).

Besides curricular autonomy, teacher autonomy is explained with teacher’s independence in making decisions about instructional processes in the classroom (Street & Licata, 1989). While the earlier studies related to teacher autonomy mostly focus on the autonomy in the classroom, and more specifically over instructional processes (Ulaş & Aksu, 2015), in the recent years, definition of teacher autonomy has broadened to such an extent as to cover other dimensions of educational processes and work stages. Öztürk (2011) explains that since the concept of teacher autonomy is not just limited to planning the teaching process; it also plays an important role in issues such as the level of motivation and job satisfaction of teachers, perceiving and organizing teaching as profession and participating to school administration.

Accordingly, school-wide autonomy, or management and planning for the overall school, is another inclusive area for teacher autonomy (Ingersoll, 1994).

The sphere of teacher autonomy can be clearly observed in different instruments that are developed to measure the process itself. In the Teacher Autonomy Scale developed by Pearson and Hall (1993), there were two dimensions of teacher autonomy: general teaching autonomy which is related
to “classroom standards of conduct” and “personal on-the-job decision making”, and curriculum autonomy which refers to the “selection of activities and materials and instructional planning and sequencing”. On the other hand, Friedman (1999) asserts the idea that autonomy has predominantly been measured in terms of external factors. Therefore, he designs a scale to measure teacher autonomy from the perspective of internal factors such as being willing to initiate ideas and getting involved in decision processes concerning all issues at school. To this end, Friedman (1999) theorizes the Teacher Work Autonomy Scale based on four factors: student teaching and assessment, school mode of operation, staff development, and curriculum development. In addition, Yang, Xia, and Huang (2009) also develop a scale with five factors: autonomy on school operation management, autonomy on professionalism and curricula innovation, autonomy on students’ performance assessment, autonomy on organizing after-school activities, and autonomy on students’ behavior management.

However, Ingersoll (1994) also states that teachers mostly feel more autonomous in making decisions about classroom and instruction-related issues rather than administration and school policies. Furthermore, he argues that even though teachers feel autonomous, the administrative policies affect their decisions in all issues. In that sense, according to Ingersoll, teachers may not really have the autonomy they think they have over their own decisions.

### 2.2. Research Studies on Teacher Reflection and Teacher Autonomy and Their Level According to Certain Variables

This section of the study dwells on research studies on the relationship between teacher reflection and teacher autonomy. Besides, research studies on
teacher reflection and teacher autonomy according to demographic variables are reviewed and presented. However, in consideration of the fact that there may be a limited number of studies focusing on the same concepts with the same features of the sample used in this study, the scope of the review has been broadened in order to incorporate the most related studies.

### 2.2.1. Research Studies on Teacher Reflection and Teachers’ Perceived Autonomy

The purpose of this section is to present the research studies conducted on teacher reflection and teacher autonomy. Unfortunately, the number of studies that address this relationship is very limited. This may be due to the fact that autonomy is a relatively new research area for researchers.

The only study, known to the researcher, which deals with the relationship between teacher reflection and teachers’ perceived autonomy is conducted by Noormohammadi (2014). The purpose of the study is presented as examining the relationship between teacher reflection and both teacher autonomy and teacher self-efficacy. In addition, the relationship between the subscales of variables is also examined. In the study, job satisfaction is presented as a main contributor to the connection between reflective teaching and teacher autonomy; as reflection increases teachers’ job satisfaction and helps them to foster autonomy and independence, and to have confidence to participate in determining school working process (Noormohammadi, 2014).

Participants of Noormohammadi’s study are 172 English language teachers. In order to measure teacher reflection, the English Language Teacher Reflective Inventory developed by Akbari et al. (2010) has been used. Teacher
Reflective Inventory consists of five factors: practical reflection, cognitive reflection, meta-cognitive reflection, critical reflection, and learner reflection. On the other hand, Teacher Autonomy Inventory, which is developed by Pearson and Moomaw (2006), has been used in order to measure teachers' perceived autonomy. Teacher autonomy scale is based on a two-factor model consisting of general teaching autonomy and curriculum autonomy.

According to the findings of Noormohammadi’s (2014) study, there is a significant positive relationship between curriculum autonomy and all of reflective teaching subscales. In the same study, practicing reflection is presented as a way to improve teachers’ autonomy. Accordingly, Noormohammadi (2014) postulates that since reflection leads to more efficacious teachers, it can help teachers to be more autonomous in their teaching practice. In this sense, reflection enables teachers to have a critical approach towards the ongoing educational policies and curriculum, and become independent lifelong learners (Lester, 1998).

Another study by Ulaş (2015) investigates the relationship between teachers’ in-class social problem solving ability and basic psychological needs such as teacher autonomy, teacher self-efficacy and perceived vocational social support. As a result of this study, teacher autonomy is found to be a predictor of teachers’ in-class social problem solving ability. It is hereby revealed that classroom teachers are likely to have a better performance in solving in-class problems as they feel a higher sense of autonomy in their job-related activities, including dimensions of curriculum, instructional processes and self-professional development. Since reflective practice is also defined as a problem solving process in the literature (Dewey, 1933; Schön, 1983, 1987; Reiman, 1999; Griffiths, 2000; Kayapınar & Erkuş, 2009; Cakcak Tezgiden,
2015) this relationship can point out a relationship between teacher reflection and teachers’ perceived autonomy.

On the other hand, responsibility is one of the main characteristics of teachers as reflective practitioners, as suggested by Dewey. The concept of responsibility may be considered as the most significant factor in examining the relationship between reflection and teacher autonomy since taking responsibility for one’s decisions is also an essential element of being autonomous. In this respect, the prevalent technicist role can be based on the fact that teacher candidates are not educated in the way of taking responsibility for school reforms and innovations (Cochran-Smith, 1991). Accordingly, it is revealed that in Turkish teacher education system, teacher candidates are educated as dependent technician teachers, and they are not motivated to take active leading roles to initiate educational reforms (Çakçak Tezgiden, 2015).

All in all, literature presented above can lead us to investigate whether a relationship between teacher reflection and teachers’ perceived autonomy actually exists.

2.2.2. Research Studies on Teacher Reflection According to Demographic Variables

According to the findings of Korumaz’s (2012) study, a statistically significant difference is detected in reflective teaching in terms of gender for English teachers. This research yields results showing that female teachers are more reflective compared with their male counterparts when all of the means of measurement are taken into consideration.
On the other hand, according to the findings of Kayapınar and Erkuş (2009) study, the reflection scores of teachers do not vary according to gender and their teaching fields; maths and social sciences. Also, a significant correlation coefficient is found between teaching experience and teacher reflection; in other words, reflection scores increase depending on experience. Furthermore, since reflective practice is defined as the process of learning through and from experience (Schön, 1987; Finlay, 2008), years of experience is expected as an increasing factor of engagement in reflective practice.

In another study, which is conducted by Gözüyeşil and Aslandoğ-Soylu (2014), EFL instructors’ reflective skills are examined according to variables of gender and graduation degree. Teacher Reflective inventory, which is developed by Akbari et al. (2010), has been used as a measurement of reflective skill. The results of this study show that gender difference does not have an impact on the reflective thinking skills of EFL instructors. In addition, there is a significant difference between the mean ranks of the instructors’ reflections scores in terms of their degree levels. More clearly, the results show that the instructors with a PhD degree deal with the tools and the actual practice of reflection more.

2.2.3. Research Studies on Teacher Autonomy According to Demographic Variables

In the study which is carried out by Pearson and Hall (1993), teacher autonomy is examined according to the variables of gender, age, degree of education, which refers to have an undergraduate or master’s degree or a higher graduate degree, and lastly, teaching experience. According to the study, teacher autonomy does not show any difference in terms of gender and degree of
education. In addition, teacher autonomy does not correlate with age and teaching experience. On the other hand, a significant relationship is observed between teacher autonomy and the grade level that the teachers teach. Accordingly, middle school teachers have a significantly higher autonomy score than both elementary or high school teachers.

In the study done by Evelein, Korthagen, and Brekelmans (2008) the fulfilment of basic psychological needs including autonomy of student teachers during their first teaching experiences was examined. The study revealed that the fulfilment of the need for autonomy in student teachers is considerably less than in experienced teachers.

Lastly, another study which is conducted by Vasile (2013), reveals a difference in favor of male teachers in terms of the level of autonomy feeling. Vasile (2013) indicates that the results on autonomy comparison by gender shows that women teachers are more inclined to expect indications from leaders (principals, Ministry of Education etc.) and not to act as leaders.
CHAPTER III

METHODOLOGY

This chapter provides detailed information about the design of the study, research questions, description of the variables, participants, data collection instruments, empirical data and their collection procedure, and data analyses.

3.1. Research Design

In this study, correlational research design is used. Correlational study describes the degree of relationship between two or more quantitative variables (Fraenkel, Wallen, & Hyun, 2012). This study aims to explain if there is any relationship between teacher reflection and teacher autonomy and among their subscales.

3.2. Research Questions

The present study aims to find out the answers of the following questions:

1. Is there a significant relationship between teacher reflection and teacher autonomy?
2. Is there a significant relationship between subscales of teacher reflection and teacher autonomy?
3. Is there a significant difference in teacher reflection scores according to certain variables?
   a) Is there a significant difference in teacher reflection scores according to gender?
b) Is there a significant difference in teacher reflection scores according to years of teaching experience?

c) Is there a significant difference in teacher reflection scores according to teaching grade level?

4. Is there a significant difference in teacher autonomy scores according to certain variables?
   
a) Is there a significant difference in teacher autonomy scores according to gender?

   b) Is there a significant difference in teacher autonomy scores according to years of teaching experience?

   c) Is there a significant difference in teacher autonomy scores according to teaching grade level?

3.3. Hypotheses

The null hypotheses related to this study are as follows:

1. H0. There is no significant relationship between teacher reflection and teachers’ perceived autonomy.

2. H0. There is no significant relationship among subscales of teacher reflection and teacher autonomy.

   In addition, sub-hypothesis of the study are as follows:

3. H0. There is a no significant difference in teacher reflection scores according to certain variables.

   3.1. H0. There is no significant difference in teacher reflection scores according to gender.

   3.2. H0. There is no significant difference in teacher reflection scores according to teaching experience.
3.3. H0. There is no significant difference in teacher reflection scores according to teaching grade level.

4. H0. There is no significant difference in teacher autonomy scores according to certain variables.

4.1. H0. There is no significant difference in teacher autonomy scores according to gender.

4.2. H0. There is no significant difference in teacher autonomy scores according to years of teaching experience.

4.3. H0. There is no significant difference in teacher autonomy scores according to teaching grade level.

3.4. Description of Variables

Teacher reflection is an independent variable. This variable is measured by Teacher Reflection Scale (TRS), which contains 28 items on a 5-point (ranging from 1=never to 5=always) Likert type scale and was developed by Akbari et al. (2010) and adapted to Turkish by Korumaz (2012). The scale was originally developed for English teachers, and was adapted to classroom teachers by the researcher. The scale comprises five subscales: (1) practical, (2) cognitive, (3) learner, (4) meta-cognitive and (5) critical.

Teacher autonomy is an independent variable. This variable is measured by Teacher Autonomy Scale for Turkish Teachers (TAST), which contains 18 items on a 5-point (ranging from 1=not at all to 5=extremely) Likert type scale and was developed by Ulaş and Aksu (2015). The scale comprises of three subscales: (1) autonomy in making decisions over the framework of curriculum that the teachers practice, (2) autonomy in instructional planning and implementation, and (3) autonomy in professional development.
3.5. Participants and Sampling

The target population of the study consists of all classroom teachers working at public elementary schools located in Ankara, Turkey. Ankara is Turkey’s 2nd largest city in terms of city population (Turkish Statistical Institute [TÜİK], 2015). Due to its socio-culturally mixed population, Ankara is considered to be an appropriate region for the representativeness of this study.

Research data have been collected from 15 public elementary schools that are randomly selected out of 3 districts (Yenimahalle, Altındağ and Keçiören) by means of cluster random sampling in the province of Ankara. Firstly, 3 districts were randomly selected from 9 central districts of Ankara. Following, 5 schools were randomly selected from each of the selected three districts. All teachers working in 15 selected schools in the 2016 – 2017 academic year composed the subject of the study.

In order to obtain demographic information related to the sample, the participants in the study have been asked to fill in the Demographic Information Form revealing their gender, years of teaching experience and teaching grade level. Descriptive statistics regarding the demographic features of the participants are shown in Table 3.1.

As displayed in Table 3.1, out of 284 classroom teachers, 74.6% (N=212) are female and 25.4% (N=72) are male. In terms of years in teaching profession, 59.5% (n=169) of the teachers have an experience of 20 years or higher, which is the highest percentage, 17.6% (n=50) of the teachers have 15 to 19 years, 10.2% (n=29) have 5 to 9 years, 9.9% (n=65) have 10 to 14 years, and 2.8% (n=8) have 1 to 4 years of teaching experience. Finally, 28.2% (n=80) of the teachers are teaching in the third grade, while 24.6% (n=70) of them are teaching in the
second grade, 23.9% (n=68) of them are teaching in the first grade, and 23.2% (n=66) of them are teaching in the fourth grade at the time of the study. The frequency distribution of the teachers regarding gender, years of teaching experience and teaching grade level is presented below in Table 3.1.

**Table 3.1. Frequency Distribution of the Participants Regarding Gender, Teaching Experience, and Teaching Grade Level**

<table>
<thead>
<tr>
<th>Variables</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>212</td>
<td>74,6</td>
</tr>
<tr>
<td>Male</td>
<td>72</td>
<td>25,4</td>
</tr>
<tr>
<td>Total</td>
<td>284</td>
<td>100,0</td>
</tr>
<tr>
<td>Years of Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-4 years</td>
<td>8</td>
<td>2,8</td>
</tr>
<tr>
<td>5-9 years</td>
<td>29</td>
<td>10,2</td>
</tr>
<tr>
<td>10-14 years</td>
<td>28</td>
<td>9,9</td>
</tr>
<tr>
<td>15-19 years</td>
<td>50</td>
<td>17,6</td>
</tr>
<tr>
<td>20 and up</td>
<td>169</td>
<td>59,5</td>
</tr>
<tr>
<td>Total</td>
<td>284</td>
<td>100,0</td>
</tr>
<tr>
<td>Teaching Grade Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.grade</td>
<td>68</td>
<td>23,9</td>
</tr>
<tr>
<td>2.grade</td>
<td>70</td>
<td>24,6</td>
</tr>
<tr>
<td>3.grade</td>
<td>80</td>
<td>28,2</td>
</tr>
<tr>
<td>4.grade</td>
<td>66</td>
<td>23,2</td>
</tr>
<tr>
<td>Total</td>
<td>284</td>
<td>100,0</td>
</tr>
</tbody>
</table>

3.6. Data Collection Instruments

In this study, valid and reliable instruments such as Teacher Reflection Scale for Turkish Teachers (TRST), Teacher Autonomy Scale for Turkish Teachers (TAST) have been used in order to gather data on teacher reflection and teacher-perceived autonomy, respectively. Additionally, Demographic Information Form is used to provide data for selected variables.
3.6.1. Teacher Reflection Scale for Turkish Teachers

Teacher reflection was planned to be measured by Teacher Reflection Scale (TRS). This scale was developed by Akbari et al. (2010) and originally named English Language Teacher Reflective Inventory (ELTRI). As an initial model, Akbari et al. (2010) proposed a 6-factor-model of ELTRI encompassing practical, cognitive, learner (affective), meta-cognitive, critical and moral elements. After the validation processes, morality factor was removed since none of the items dealing with the construct of morality showed a significant relationship with their corresponding factors. Consequently, a 5-factor-model of ELTRI was developed as the final model to ensure validity and reliability.

According to Akbari et al. (2010), explanations of reflective teaching elements include the following; practical reflection is related to the tools of teaching and the actual practice of reflection as the way teachers reflect such as keeping journals, exchange ideas with colleagues, observations and teaching portfolios. Cognitive reflection is about teachers’ conscious efforts for achieving professional development such as reading books and journals. Learner (affective) focused reflection is associated with knowing about learner’s affective and cognitive state. Meta-cognitive reflection deals with teacher reflection on their strength, weaknesses, personality, and beliefs and perceptions on their teaching practice. Lastly, socio-political aspects of teaching and reflections upon such issues constitute the theme of critical reflection.

Adapted to Turkish by Korumaz (2012) for English Language Teachers, TRS consists of 29 items on a 5-point (ranging from 1=never to 5=always) Likert type scale. Possible scores on TRS range from 29 to 145. The scale consists of
five independent subscales: practical, cognitive, learner, meta-cognitive and critical, in parallel with original version of the scale. Practical reflection consists of 6 items (e.g., I talk about my classroom experiences with my colleagues and seek their advice/feedback.), cognitive reflection consists of 6 items (e.g. I read books/articles related to effective teaching to improve my classroom performance), reflection on learner consists of 3 items (e.g., I talk to my students to learn about their learning styles and preferences), meta-cognitive reflection consists of 7 items (e.g., I am aware of the theoretical philosophy which influences my teaching method), and critical element consists of 7 items (e.g., I am aware of inconsistencies and contradictions that occur in my classroom practice).

In the adaptation study by Korumaz (2012), Kaiser Meyer Olkin (KMO) measure of sampling adequacy and Bartlett’s test of sphericity, which are the assumptions of Explanatory Factor Analysis (EFA), were checked. The results of the analysis on Korumaz’s (2012) study indicate that there is no correlation higher than .90 (Tabachnick & Fidell, 2012). Besides, Bartlett’s test of sphericity is found significant (p< .001), and KMO value is .82, which is considered satisfactory for a good EFA (Tabachnick & Fidell, 2012). In addition, for internal consistency, Cronbach’s Alpha value of the whole scale was .92 and for the subscales Cronbach’s Alpha value is determined as follows: .70 for Practical, .83 for Cognitive, .64 for Learner (affective), .84 for Meta-cognitive, and .78 for Critical.

3.6.1.1. Piloting of TRS for Classroom Teachers

Since TRS is developed for English teachers, a pilot study was needed to be conducted in order to determine the applicability of the scale for classroom
teachers who teach in 1-4 grades. In the pilot study for the TRS adapted to Turkish by Korumaz (2012), Confirmatory Factor Analysis (CFA) was conducted for the confirmation of these factor structures, and reliability coefficients are calculated. CFA is defined as an analysis which is used in the later phases of scale development or construct validation after the underlying structure has been hypothesized by prior empirical analyses using EFA, in order to test this structure as a model (Brown, 2006).

CFA was performed based on the data collected from 237 classroom teachers in 31 elementary level private schools operating under Turkish Education Association. The scale was presented in the shared online school platform (K-12), which is actively used by teachers. The number of female participants (n = 201) exceeded the number of male participants (n = 36). There was no missing value. Before applying the scale to classroom teachers in the pilot study, the word “English” in three items was deleted to make the scale appropriate for classroom teachers.

The initial CFA results indicate that the t value was not significant for the item 25. If a parameter estimate is not significant, dropping the corresponding item from the model can be considered (Büyüköztürk, Şekercioğlu, & Çokluk, 2014). In addition to the results related to t-statistics, according to experts’ opinion, the item 25 - “In my teaching, I include less-discussed topics such as old age, AIDS, discrimination against women and minorities, and poverty” - was not an appropriate item for the sample of classroom teachers who teach to children in 1-4th grades, since these grades could be too early to discuss such topics in the classroom. For these reasons, this item was excluded from the model. Then, a five-factor CFA model with 28 items was obtained as a final model, as shown in Figure 1.
Figure 1. Confirmatory Factor Analysis Model of Teacher Reflection Scale
Brown (2006) recommends using chi-square ($\chi^2$), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI) and Non-Normed Fit Index (NNFI) values for the assessment of hypothesized model fit. In the current study, these recommended model fit indices were used to evaluate the fit for the five-factor CFA model of TRS.

For the final model shown in Figure 1, CFA results indicated a significant chi-square value ($\chi^2 = 577.82$, $df = 340$, $p = .00$), $\chi^2(340) = 577.82$ ($p<.05$). Hooper, Coughlan, and Mullen (2008) suggest that the chi-square value is sensitive to sample size, and it is mostly significant if the sample size is large. Due to this limitation, other model fit statistics were also taken into consideration to evaluate the model fit. As recommended by Brown (2006), Root Mean Square Error of Approximation (RMSEA), CFI and NNFI values were used to assess the hypothesized model fit. CFA revealed a RMSEA value of .05 with 90% confidence interval of .046 to .062; CFI value of .95; NNFI value of .95; RMSEA value of 0.5 indicates a close fit (Hu & Bentler, 1999), other fit indices of CFI and NNFI resulted in a good fitting model according to suggested critical value by Brown (2006). Furthermore, the standardized estimates ranged from .41 to .73, which means the items are loaded on the related factors significantly.

Taking into account all of the results, the final CFA model revealed promising results on the five-factor structure of TRS and provides further evidence on the construct validity of the scale.

Following the evaluation of validity, Cronbach’s Alpha coefficient of internal consistency was calculated by way of using Statistical Package for Social Sciences (SPSS version 22) in order to examine the reliability of TRS. Cronbach's Alpha coefficient was a widely used measure for assessing consistency. Cronbach’s Alpha coefficient was taken as the value of .70 (Hair,
Anderson, Tatham, & Black, 1998). In this study this coefficient was found as .88 for the total scale; and for the subscales as follows: practical .78, cognitive .74, learner .66, meta-cognitive .77, critical .77. The results indicated that the scale provides a reliable measurement.

Finally, TRS was considered as a valid and reliable inventory measuring classroom teachers’ reflection. It consists of five factors with 28 items.

3.6.2. Teacher Autonomy Scale for Turkish Teachers

Teachers’ perceived autonomy was planned to be measured by Teacher Autonomy Scale for Turkish Teachers (TAST) which has 18 items on a 5-point (ranging from 1=not at all to 5=extremely) Likert type scale, developed by Ulaş and Aksu (2015). Possible scores on the TAST range from 18 to 90. The scale consists of three independent subscales: (1) autonomy in instructional planning and implementation (AIPI), (2) autonomy in professional development (APD), and (3) autonomy in determining the framework of the curriculum (ADFC). AIPI consists of 11 items (e.g., I feel autonomous in identifying the criteria to evaluate student achievement), APD consists of four items (e.g., I feel autonomous to choose where the in-service teacher training programs will be held), and ADFC consists of three items (e.g., I feel autonomous to select the topics for the annual/daily plans).

In the development process of TAST, autonomy in organizational decision-making was not considered to be an appropriate field of autonomy for the teachers in Turkish education system. Therefore, based on the literature review and expert opinions, the items were framed under two factors: “autonomy in instructional planning and implementation” and “autonomy in professional development”.

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Finally, validity and reliability of TAST were tested by Ulaş and Aksu (2015). Although the number of constructs that were hypothesized as two, according to the results of EFA, a three-factor structure was identified. As assumptions of EFA, Bartlett’s test of sphericity was found to be significant ($p<.001$), and KMO value was determined as .89. Moreover, these values were indicated as satisfactory for a good EFA (Tabachnick & Fidell, 2012). Accordingly, as a result of CFA which was conducted with a different data set, a three-factor model of TAST was supported.

In order to ensure the internal consistency of the scale, Cronbach’s Alpha coefficients were calculated for all subscales and the whole scale. This value was calculated as .89 for the whole scale; and .91, .80, and .86 for subscales; AIPI, APD, ADFC respectively, which yielded very good to excellent results (Kline, 2011). Since TAST was developed for the classroom teachers in 1-4 grades, which was as the same sample group in current study, this scale was considered to be ready for use without making a pilot study.

### 3.6.3. Demographic Information Form

One of the purposes of the study is to determine whether teacher reflection and teachers’ perceived autonomy differ according to certain variables. The data on certain characteristics of teachers are collected through the use of a demographic information form which includes four questions: 1. gender (female and male), 2. years of teaching experience (0-4, 5-9, 10-14, 15-19, 20 and higher), 3. the grade that the teachers are teaching (1st, 2nd, 3rd, and 4th).
3.7. Procedures/Data Collection

Data collection procedures started with the stage of getting permission from Human Subjects Ethics Committee of Middle East Technical University for approval of the ethical considerations. Secondly, for the pilot study of Teacher Reflection Scale, an application was made to Turkish Education Association (TEA), which is a non-governmental organization, in order to take permission to collect data from schools which are affiliated with TEA. Afterwards, in order to collect data for the main study, permission was granted from Provincial Directorate for National Education in Ankara to visit the selected elementary schools in Ankara.

After receiving this permission, the researcher collected the data for the pilot study of Teacher Reflection Scale from the classroom teachers who work at 31 schools of TEA in February 2017 via mail on the communication network hardware in which all teachers are included. Subsequently, such collected data have been analyzed.

As the next step, the researcher collected the data from the classroom teachers working at the selected 15 public schools in three districts (Yenimahalle, Altındağ, Keçiören) in Ankara by visiting them personally in April 2017. Before data gathering, the researcher informed all participants about the significance of the study and confidentiality of their information. In addition, they explained that participation to the current study was on voluntary basis, and their participation would be kept anonymous. The forms including Teacher Autonomy Scale and Teacher Reflection Scale were distributed simultaneously to the teachers. The teachers were asked to fill out the data collection instruments during the breaks. Filling the forms took approximately 10 minutes for teachers.
3.8. Data Analysis

For the pilot process of Teacher Reflection Scale, data gathered from 237 classroom teachers from elementary schools have been analyzed in Lisrel 8.80 to confirm factors. Before analyzing data in Lisrel, the data have been screened and outliers are determined. Also, the reliability of the scale for the current sample has been checked with Cronbach Alpha Coefficient in SPSS version 22.

For the main analysis, the data have been screened and cleaned to prepare for descriptive and inferential statistics, general assumptions of inferential statistics have been checked by SPSS version 22. This stage includes independent observation, checking wrong data entry, and missing values. Hair et al. (1998) describe independent observation as a measure for respondents to be totally uncorrelated with the responses from other respondents in the sample. Additionally, they warn about a lack of independence which critically affects the statistical validity of the analysis. In order to provide independent observation, the participants have been asked to fill in the forms on their own without discussing with other participants about the questions.

The number of the participants who took part in the study is 325. The data are collected from the participants with a two-sided three-page form that contain data collection instruments. 41 out of 325 participants did not fill in the data collection form at all and they were excluded from the data set for the main analysis. As a result, the sample consists of 284 cases. The missing values for these cases are determined as less than 5%. Tabachnick and Fidell (2012) suggest that any technique that deal with missing data would reveal similar results in large samples when missing values are less than 5%. Therefore, it is
decided that these cases with missing values shall be retained in the data set and data imputation is conducted by using Expectation Maximization (EM) method. This method is executed by forming “a missing data correlation (or covariance) matrix by assuming the shape of a distribution (such as normal) for the partially missing data and basing inferences about missing values on the likelihood under that distribution” (Tabachnick & Fidell, 2012, p. 68).

Descriptive statistics that describes the data by means, and standard deviations were conducted. Afterwards, inferential statistics were used to test the hypotheses of the study. Therefore, some assumptions of inferential statistics were checked in consideration of the alpha level of .05. Pearson Correlation was run to determine the presence of significance, direction and magnitude of the relationship between teacher reflection and teacher autonomy and among their subscales.

Finally, the data was analyzed by t-test and one-way Analysis of Varyans (ANOVA) in order to determine whether teacher reflection and teachers’ perceived autonomy differ according to selected demographic features such as gender, teaching experience, and teaching grade level.

Data collected for this study could also be analysed by using Multivariate Analysis of Varyans (MANOVA) which would give us a stronger results related to main effects and interactions. But since one of the assumptions was not satisfied and also being the first study in the area, separate ANOVA were preferred.
3.9. Limitations of the Study

The limitations of the current study are discussed in consideration of internal and external validity threats.

3.9.1. Internal Validity Threats

In the current study, subject characteristics was a possible threat to internal validity. In order to prevent this threat, the sample of the study was selected by means of random sampling method. Also, location would be a threat to internal validity, which may affect participants in different ways. In order to control the location threat, the instruments were managed in the teachers’ room during breaks.

Moreover, the questionnaires were answered by participants as self-report. This self-report technique may be a threat itself, since teachers may have selected an option which does not actually reflect their real opinion with reasons such as tiredness, limited time, or desire to seem appealing. To minimize this effect, the researcher explained the importance of sincere and real opinions in getting accurate results to the participants.

Another potential threat for the internal validity of this study was mortality. In order to control the mortality threat, the researcher made visits to schools by choosing the days carefully considering holidays and special programs of schools during which teachers could be busy.

3.9.2. External Validity Threat

External validity threat is about the generalization of results. Therefore, sampling is an important factor which affects external threat. In the present
study, 284 classroom teachers working in 15 public elementary schools in the three main districts of Ankara participated in the research. Even though Ankara has a mixed socio-cultural population, it is not possible to generalize the results to all classroom teachers in Turkey. And also, since the study is conducted with classroom teachers, it is not possible to apply study results to the teachers in other teaching fields.
CHAPTER IV

RESULTS

This section of the study shows the results of data analyses. To this end, descriptive statistics and the findings related to inferential analyses have been presented. Correlations among teacher reflection and teacher autonomy and their subscales have been examined by means of Pearson Correlation analysis. Following this, an independent t-test and one-way ANOVA have been implemented in order to find out whether teacher reflection and teacher autonomy scores change according to certain variables.

4.1. Results Related to Correlation Between Teacher Reflection and Teacher Autonomy

The correlation between teacher reflection and teacher autonomy has been examined by calculating Pearson moment correlation coefficient. When the data for both variables are expressed in terms of quantitative scores, the Pearson r is stated as the appropriate correlation coefficient to use (Fraenkel et al., 2012).

Before the analysis for correlation, assumptions of Pearson correlation have been checked; which are variables in interval or ratio level, linearly related data and normality. The data pertaining to teacher reflection and teacher autonomy were both linear and in ratio level. As to normality, histograms and Q-Q plots revealed a normally distributed data. Skewness and Kurtosis values for the variables fell within the range of critical values, which are +3 and -3.
Furthermore, results of Kolmogorov-Smirnov and Shapiro-Wilk tests were significant ($p<.05$). Accordingly, these results have shown that the normality assumption was met, as well.

In order to interpret the sizes of correlations, Cohen’s (1988/1992, as cited in Field, 2009) criteria have been used. According to Cohen (1988/1992, as cited in Field, 2009), the criteria for evaluating the strength of correlations among variables are suggested to be small if it is ±.10, medium if it is ±.30, and large if it is ±.50.

**Table 4.1.** Means, Standard Deviations and Bivariate Correlation

<table>
<thead>
<tr>
<th></th>
<th>$M$</th>
<th>$SD$</th>
<th>Reflection</th>
<th>Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflection</td>
<td>4.01</td>
<td>.45</td>
<td>1</td>
<td>.51**</td>
</tr>
<tr>
<td>Autonomy</td>
<td>3.57</td>
<td>.59</td>
<td>.51**</td>
<td>1</td>
</tr>
</tbody>
</table>

*$p<.05$, **$p<.01$*  

As shown in Table 4.1, the correlational analysis reveals a significant relationship between teacher reflection ($M=4.01$, $SD=.45$) and teachers’ perceived autonomy ($M=3.57$, $SD=.59$), $r=.51$, $n=284$, $p<.01$, two tails. The size of the correlation between teacher reflection and teacher autonomy is found to be strong. Based on the result of Pearson correlation analysis, we reject the null hypothesis claims that there is no significant relationship between teacher reflection and teachers’ perceived autonomy.
4.2. Results Related to the Correlations Among Subscales of Teacher Reflection (Practical, Cognitive, Learner, Metacognitive, Critical) and Subscales of Teacher Autonomy (ADFC, AIPI, APD)

The results related to the research question whether there is a significant relationship between subscales of teacher reflection and teacher autonomy have been examined. Descriptive statistics associated with the subscales of teacher reflection and teacher autonomy are presented in Table 4.2. Teacher reflection variable comprises five subscales ranging from the lowest mean score to the highest mean score: Practical (M=3.51, SD=.66), Cognitive (M=3.55, SD=.68), Learner (M=4.24), Metacognitive (M=4.37, SD=.49), Critical (M=4.42, SD=.52). Teacher autonomy variable comprises three subscales ranging from the lowest mean score to the highest mean score; APD (M=2.49, SD=1.01), ADFC (M=3.33, SD=.86), AIPI (M=4.02, SD=.58).

<table>
<thead>
<tr>
<th>Subscale</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practical</td>
<td>3.51</td>
<td>.66</td>
</tr>
<tr>
<td>Cognitive</td>
<td>3.55</td>
<td>.68</td>
</tr>
<tr>
<td>Learner</td>
<td>4.24</td>
<td>.58</td>
</tr>
<tr>
<td>Metacognitive</td>
<td>4.37</td>
<td>.49</td>
</tr>
<tr>
<td>Critical</td>
<td>4.42</td>
<td>.52</td>
</tr>
<tr>
<td>ADFC</td>
<td>3.33</td>
<td>.86</td>
</tr>
<tr>
<td>AIPI</td>
<td>4.02</td>
<td>.58</td>
</tr>
<tr>
<td>APD</td>
<td>2.49</td>
<td>1.01</td>
</tr>
</tbody>
</table>

Pearson correlation has been implemented in order to determine the relationship among the subscales of teacher reflection and teacher autonomy. Table 4.3 shows the correlation matrix of all subscales.
As presented in Table 4.3, all the subscales of teacher reflection and teacher autonomy are significantly \((p<.01)\) and positively correlated. Pearson Correlation Coefficients among subscales range from .16 to .45. According to Cohen’s (1988/1992, as cited in Field, 2009) criteria, the correlations among subscales have been found to be small to strong. The smallest size of the correlation is .16, which is between Critical and APD; and the largest size of correlation is .45, which is between Metacognitive and AIPI. While all the subscales of teacher reflection are moderately to strongly correlated with the AIPI, they are moderately correlated with ADCF. The size of correlations between the subscales of teacher reflection and APD are found to be small to moderate. Based on this result, we reject the null hypothesis claims that there is no significant relationship among subscales of teacher reflection and teacher autonomy.

### 4.3. Results of Teacher Reflection Related to Certain Variables (Gender, Years of Experience and Teaching Grade Level)

In this part, the results related to the research question that aims to reveal whether teacher reflection scores vary according to the certain variables, which are gender, years of experience and teaching grade level, are presented. For the data analysis, teacher reflection according to gender variable has been examined by means of independent t-test, and the variables of years of experience and teaching grade level have been analyzed through ANOVA.
experience and teaching grade level have been examined by means of one-way ANOVA. For these inferential analyses, the assumptions of each of hypotheses have been checked, and the data have been interpreted accordingly.

4.3.1. Results of Teacher Reflection Related to Gender

In order to determine whether the differences in the mean scores of female and male participants are significant, an independent t-test has been employed. Histograms and Q-Q Plots revealed that teacher reflection was distributed normally for both groups. The other assumption of the t-test is the homogeneity of variance, which was assessed with Levene's Test for Equality of Variances. According to Levene's Test, homogeneity of variance was not met for Teacher reflection and the subscales of practical and learner, \( p<.05 \). However, an independent t-test is considered a robust parametric test which can be used even if the assumption of homogeneity of variance is not met (Büyüköztürk, Çokluk, & Köklü, 2016).

Table 4.4. T-Test for Teacher Reflection in Terms of Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td>SEM</td>
<td>t</td>
</tr>
<tr>
<td>Reflection</td>
<td>Female</td>
<td>212</td>
<td>4.04</td>
<td>.47</td>
<td>.03</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>72</td>
<td>3.90</td>
<td>.38</td>
<td>.04</td>
</tr>
<tr>
<td>Practical</td>
<td>Female</td>
<td>212</td>
<td>3.57</td>
<td>.67</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>72</td>
<td>3.31</td>
<td>.57</td>
<td>.07</td>
</tr>
<tr>
<td>Cognitive</td>
<td>Female</td>
<td>212</td>
<td>3.61</td>
<td>.66</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>72</td>
<td>3.38</td>
<td>.70</td>
<td>.08</td>
</tr>
<tr>
<td>Learner</td>
<td>Female</td>
<td>212</td>
<td>4.26</td>
<td>.61</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>72</td>
<td>4.16</td>
<td>.47</td>
<td>.06</td>
</tr>
<tr>
<td>Metacognitive</td>
<td>Female</td>
<td>212</td>
<td>4.39</td>
<td>.50</td>
<td>.03</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>72</td>
<td>4.32</td>
<td>.46</td>
<td>.05</td>
</tr>
<tr>
<td>Critical</td>
<td>Female</td>
<td>212</td>
<td>4.43</td>
<td>.53</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>72</td>
<td>4.38</td>
<td>.47</td>
<td>.06</td>
</tr>
</tbody>
</table>

*\( p<.05 \)
As presented in Table 4.4, the mean score of female participants for teacher reflection (M=4.04, SD=.47) is higher than that of males (3.90, SD=.38). According to the independent t-test analysis, this difference in the teacher reflection score between female and male participants is significant, t (282) = 2.409, p = .02.

As for the examination of subscales, firstly, the mean score of female participants in the practical subscale (M=3.57, SD=.67) is significantly higher than the mean score of male participants (M=3.31, SD=.57), t (282) = 3.978, p = .00. For the cognitive subscale, the mean score of female participants in terms of teacher reflection (M=3.61, SD=.66) is significantly higher than the mean score of male participants in terms of teacher reflection (M=3.38, SD=.70), t (282) = .2553, p = .01.

On the other hand, for the remaining learner, metacognitive and critical subscales, no significant difference has been found in terms of teacher reflection scores according to gender. Accordingly, we reject the null hypothesis claims that there is not a significant difference in teacher reflection according to their gender.

4.3.2. Results of Teacher Reflection Related to Years of Experience

The results related to the research question that aims to reveal whether teacher reflection scores change according to years of experience have been examined. Descriptive statistics associated with teacher reflection according to years of experience are presented in Table 4.5. The independent variable which herein pertains to years of experience, includes five groups: 0-4 years of experience (M = 3.99, SD = 0.58, n = 8), 5-9 years of experience (M = 4.19, SD = 0.41, n = 29), 10-14 years of experience (M = 3.93, SD = 0.37, n = 28), 15-19 years of experience
(M = 3.93, SD = 0.47, n = 50), and 20 and more years of experience (M = 4.01, SD = 0.45, n = 169).

Table 4.5. Descriptive Statistics of Teacher Reflection According to Years of Experience

<table>
<thead>
<tr>
<th>Years of Experience</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4 years</td>
<td>8</td>
<td>3.99</td>
<td>0.58</td>
</tr>
<tr>
<td>5-9 years</td>
<td>29</td>
<td>4.19</td>
<td>0.41</td>
</tr>
<tr>
<td>10-14 years</td>
<td>28</td>
<td>3.93</td>
<td>0.37</td>
</tr>
<tr>
<td>15-19 years</td>
<td>50</td>
<td>3.93</td>
<td>0.47</td>
</tr>
<tr>
<td>20 years and longer</td>
<td>169</td>
<td>4.01</td>
<td>0.45</td>
</tr>
<tr>
<td>Total</td>
<td>284</td>
<td>4.01</td>
<td>0.45</td>
</tr>
</tbody>
</table>

In order to reveal whether the differences in the mean scores of the factors are significant, one-way ANOVA has been employed. Normality assumption has been evaluated by using histograms and Q-Q plots, and the data has been found to be distributed normally for all groups. Also, the assumption of homogeneity of variances has been tested and found tenable by using Levene’s Test, F (4, 279) = .55, p = .70.

As presented in Table 4.6 the ANOVA is not significant F (4, 279) = 1.80, p = .13. Therefore, it is concluded that no significant difference exists in teacher reflection scores according to years of experience. Thus, we fail to reject the null hypothesis claims that there is not a significant relationship between teacher reflection and their teaching experience.
Table 4.6. ANOVA for Teacher Reflection According to Years of Experience

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1.455</td>
<td>4</td>
<td>.364</td>
<td>1.80</td>
<td>.13</td>
</tr>
<tr>
<td>Within Groups</td>
<td>56.448</td>
<td>279</td>
<td>.202</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>57.903</td>
<td>283</td>
<td></td>
<td></td>
<td>&lt;.05</td>
</tr>
</tbody>
</table>

4.3.3. Results of Teacher Reflection Related to Teaching Grade Level

The results related to the research question that aims to show whether teacher reflection scores change according to teaching grade level have been examined. Descriptive statistics associated with teacher reflection according to teaching grade level are presented in Table 4.7. The independent variable, which pertains to teaching grade level, includes four groups: 1. grade (M = 4.01, SD = 0.49, n = 68), 2. grade (M = 4.02, SD = 0.40, n = 70), 3. grade (M = 3.97, SD = 0.46, n = 80), and 4. grade (M = 4.03, SD = 0.46, n = 66).

Table 4.7. Descriptive Statistics of Teacher Reflection According to Teaching Grade Level

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.grade</td>
<td>68</td>
<td>4.01</td>
<td>.49</td>
</tr>
<tr>
<td>2.grade</td>
<td>70</td>
<td>4.02</td>
<td>.40</td>
</tr>
<tr>
<td>3.grade</td>
<td>80</td>
<td>3.97</td>
<td>.46</td>
</tr>
<tr>
<td>4.grade</td>
<td>66</td>
<td>4.03</td>
<td>.46</td>
</tr>
<tr>
<td>Total</td>
<td>284</td>
<td>4.01</td>
<td>.45</td>
</tr>
</tbody>
</table>

In order to find out whether the differences in the mean scores of various teaching grade levels are significant, one-way ANOVA has been used. When
it comes to normality, histograms and Q-Q plots revealed a normally distributed data. The assumption of homogeneity of variances has been tested and found tenable by using Levene’s Test, $F (3, 280) = .47, p=.70$.

As presented in Table 4.8 the ANOVA is not significant $F (3, 280) = 0.27, p=.85$. Therefore, it is concluded that there is no significant difference in teacher reflection scores according to teaching grade level. Based on related result, we fail to reject the null hypothesis claims that there is not a significant difference in teacher reflection according to teaching grade level.

Table 4.8. ANOVA for Teacher Reflection According to Teaching Grade Level

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.165</td>
<td>3</td>
<td>.055</td>
<td>0.27</td>
<td>.85</td>
</tr>
<tr>
<td>Within Groups</td>
<td>57.737</td>
<td>280</td>
<td>.206</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>57.903</td>
<td>283</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$p<.05$

4.4. Results of Teacher Autonomy Related to Certain Variables (Gender, Years of Experience and Teaching Grade Level)

In this part, the results related to the research question that aims to determine whether teachers’ perceived autonomy scores varies according to the certain variables such as gender, years of experience and teaching grade level have been presented. For the data analysis, teacher autonomy according to gender is examined through the use of an independent t-test, and the variables of years of experience and teaching grade level are examined by means of one-way ANOVA. Accordingly, assumptions of each of hypotheses are presented, and the data are interpreted.
4.4.1. Results of Teacher Autonomy Related to Gender

In order to reveal whether the differences in the mean scores of teachers’ perceived autonomy according to gender are significant, an independent t-test has been implemented. Normality assumption has been checked by way of using histograms and Q-Q Plots, and this evaluation has revealed that teacher autonomy was distributed normally for both groups. The assumption of homogeneity of variance has been assessed through the use of Levene’s Test. According to Levene’s Test, homogeneity of variance was not met for teacher autonomy and the subscale of AIPI, $p<.05$. However, an independent t-test has been employed, since it is considered a robust parametric test.

Below, Table 4.9 displays the independent t-test results related to gender. It can be concluded that no significant difference exists between the mean scores of female and male participants in teacher autonomy and it is all subscales; AIPI, APD, ADFC, since $p>.05$ for those. Accordingly, we fail to reject the null hypothesis claims that there is not a significant difference in teachers’ perceived autonomy and their gender.

<table>
<thead>
<tr>
<th>Table 4.9. T-Test for Teacher Autonomy in Terms of Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>Autonomy</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>ADFC</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>AIPI</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>APD</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
</tbody>
</table>
4.4.2. Results of Teacher Autonomy Related to Years of Experience

The results related to the research question whether teacher autonomy scores vary according to years of experience have been examined. Descriptive statistics associated with teacher autonomy according to years of experience are presented in Table 4.10. The independent variable, which herein pertains to years of experience, includes five groups: 0-4 years of experience (M = 3.26, SD = 0.54, n = 8), 5-9 years of experience (M = 3.50, SD = 0.55, n = 29), 10-14 years of experience (M = 3.39, SD = 0.49, n = 28), 15-19 years of experience (M = 3.54, SD = 0.53, n = 50), and finally 20 and more years of experience (M = 3.63, SD = 0.63, n = 169).

Table 4.10. Descriptive Statistics of Teacher Autonomy According to Years of Experience

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4 years</td>
<td>8</td>
<td>3.26</td>
<td>.54</td>
</tr>
<tr>
<td>5-9 years</td>
<td>29</td>
<td>3.50</td>
<td>.55</td>
</tr>
<tr>
<td>10-14 years</td>
<td>28</td>
<td>3.39</td>
<td>.49</td>
</tr>
<tr>
<td>15-19 years</td>
<td>50</td>
<td>3.54</td>
<td>.53</td>
</tr>
<tr>
<td>20 years and longer</td>
<td>169</td>
<td>3.63</td>
<td>.63</td>
</tr>
<tr>
<td>Total</td>
<td>284</td>
<td>3.57</td>
<td>.59</td>
</tr>
</tbody>
</table>

In order to reveal whether the differences in the mean scores of teacher autonomy according to years of experience are significant, one-way ANOVA has been employed. Histograms and Q-Q plots have revealed a normally distributed data for all groups. The assumption of homogeneity of variances has been checked and found tenable by using Levene’s Test, F (4, 279) = .91, \( p=46 \).
As presented in Table 4.11 the ANOVA is not significant $F (4, 279) = 1.70, p=.15$. Accordingly, it is concluded that there is no significant difference in teachers’ perceived autonomy according to years of experience. Hence, we fail to reject the null hypothesis claims that there is not a significant difference in teachers’ perceived autonomy according to their teaching experience.

### Table 4.11. ANOVA for Teacher Autonomy According to Years of Experience

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2.370</td>
<td>4</td>
<td>.592</td>
<td>1.70</td>
<td>.15</td>
</tr>
<tr>
<td>Within Groups</td>
<td>97.148</td>
<td>279</td>
<td>.348</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>99.518</td>
<td>283</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$p<.05$

4.4.3. Results of Teacher Autonomy Related to Teaching Grade Level

The results related to the research question whether teacher autonomy scores vary according to teaching grade level have been examined. Descriptive statistics associated with teacher autonomy according to teaching grade level are presented in Table 4.12. The independent variable, which is the teaching grade level, includes four groups: 1. grade ($M = 3.60, SD = 0.60, n = 68$), 2. grade ($M = 3.52, SD = 0.55, n = 70$), 3. grade ($M = 3.54, SD = 0.64, n = 80$), and 4. grade ($M = 3.61, SD = 0.58, n = 66$).
Table 4.12. Descriptive Statistics of Teacher Autonomy According to Teaching Grade Level

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.grade</td>
<td>68</td>
<td>3.60</td>
<td>.60</td>
</tr>
<tr>
<td>2.grade</td>
<td>70</td>
<td>3.52</td>
<td>.55</td>
</tr>
<tr>
<td>3.grade</td>
<td>80</td>
<td>3.54</td>
<td>.64</td>
</tr>
<tr>
<td>4.grade</td>
<td>66</td>
<td>3.61</td>
<td>.58</td>
</tr>
<tr>
<td>Total</td>
<td>284</td>
<td>3.57</td>
<td>.59</td>
</tr>
</tbody>
</table>

In order to reveal whether the differences in the mean scores of the teacher autonomy according to teaching grade level are significant, one-way ANOVA has been implemented. The assumption of normality was evaluated by using histograms and Q-Q plots, and the data was found to be distributed normally for all groups. The assumption of homogeneity of variances was found tenable according to Levene’s Test, $F (3, 280) = .97, p=.41$.

As presented in Table 4.13, the ANOVA is not significant $F (3, 280) = 0.37, p=.78$. Therefore, it is concluded that there is no significant difference in teachers’ perceived autonomy according to teaching grade level. Accordingly, we fail to reject the null hypothesis claims that there is not a significant difference in teachers’ perceived autonomy according to teaching grade level.

Table 4.13. ANOVA for Teacher Autonomy According to Teaching Grade Level

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.391</td>
<td>3</td>
<td>.130</td>
<td>.37</td>
<td>.78</td>
</tr>
<tr>
<td>Within Groups</td>
<td>99.127</td>
<td>280</td>
<td>.354</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>99.518</td>
<td>283</td>
<td>.59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$p<.05$
CHAPTER V

DISCUSSION, CONCLUSION and IMPLICATIONS

This chapter contains the discussion of the results, implications, and recommendations for further research. They are presented in detail in the following sections.

5.1. Discussion of Results

This study is designed to find out the relation between teacher reflection and teacher autonomy and their subscales, and to determine whether there is a difference in teacher reflection and teacher autonomy scores of the participants according to gender, years of experience and teaching grade level. In the light of the findings that are examined in this study, it has been observed that there is a statistically significant correlation between teacher reflection and teacher autonomy and among their subscales. Furthermore, while teacher reflection scores significantly differed according to gender, teacher autonomy scores did not differ according to selected variables. Each of these results is discussed in following sections.

5.1.1. Results Related to the Correlation Between Teacher Reflection and Teacher Autonomy

The results related to the correlational analysis have revealed a significant relationship between teacher reflection and teachers' perceived autonomy. Moreover, this was a strong correlation ($r = .51$), which means that teachers who are more engaged in reflective practice also tend to perceive higher
autonomy in their working environment. In other words, as engagement in reflective practice increases the perceived autonomy also increases and vice versa. The results of the current study were consistent with the study of Noormohammadi (2014), which found a correlational relationship between teacher reflection and teacher autonomy in the sample of English teachers. The results of the present study expanded this relationship to the sample of classroom teachers with the subscales for Turkey context.

As claims supporting the result of present study, engaging reflective practices is suggested as a way to improve teachers’ autonomy and help them to take control of their work due to reflection leads to more efficacious teachers (Larrivee, 2008; Noormohammadi, 2014). Moreover, as it was presented in related literature, reflective practice in teaching was a reaction to technicist approach which view teacher’s role as just transmitter of predetermined content without questioning. In current study, the strong correlation is an important evidence that teachers who have a high awareness about the process and have a critical approach towards the ongoing educational policies feel more control in decisions about issues in their working environment. This conclusion is consisted with suggestion that the goal of reflective practice is to become an autonomous decision maker (Schön, 1983, 1987); and teacher who are engaged in reflective practice questions the assumptions, takes part in curriculum development, becomes more empowered decision makers, is involved in school change efforts, and takes responsibility about professional development and shaping their practice (Farrell, 2004; Zeichner & Liston, 1996). Therefore, empowering the approach that advocate teacher’s role as reflective practitioner in educational system, also empower the teacher as autonomous decision makers.
On the other hand, since reflective practice is also defined as a continuous problem solving process, this study is also consistent with the results of the study by Ulaş (2015) who suggested that classroom teachers are likely to be better in solving in-class problems as they feel a higher sense of autonomy in their job related activities.

5.1.2. Results Related to the Correlations Among Subscales of Teacher Reflection (Practical, Cognitive, Learner, Metacognitive, Critical) and Subscales of Teacher Autonomy (ADFC, AIPI, APD)

All of the subscales of teacher reflection and teacher autonomy examined in this study were significantly and positively correlated with one another. Correlations among subscales were varied to be small to strong.

The subscale of autonomy in instructional planning and implementation (AIPI) was moderately to strongly (r= .29 to r= .45) correlated with the subscales of teacher reflection which are: practical, cognitive, metacognitive, learner and critical. This finding pointed out a conclusion that teachers who are engaged in reflective teaching practices are likely to feel more autonomous in instructional planning and implementation (AIPI). Furthermore, the strongest correlation was between metacognitive reflection and autonomy in instructional planning and implementation. Akbari et al. (2010) describe metacognitive reflection associated with teacher reflection on their strength, weaknesses, personality, and beliefs and perceptions on their teaching practice. And autonomy in instructional planning and implementation refers to all decision-making processes related to the organization of teaching practices. Therefore, it can be concluded that teachers who are more aware of their teaching practices and of themselves as teachers have a higher sense of
autonomy in their decisions concerning issues in instructional planning and implementation.

In addition, all subscales of teacher reflection were moderately ($r = .28$ to $r = .34$) correlated with autonomy in determining the framework of the curriculum (ADFC). Autonomy in determining the curriculum framework is associated with the decisions pertaining to teaching content. Accordingly, being more engaged in reflective practices as a teacher can be considered in relation to feeling more autonomous in making decisions about the curriculum framework. This result was concurrent with the findings of Noormohammadi’s (2014) study that found a significant positive relationship between curriculum autonomy and all of reflective teaching subscales.

On the other hand, all subscales of teacher reflection were in a small to moderate ($r = .16$ to $r = .34$) relationship with autonomy in professional development (APD). Here, it should be noted that teachers got the lowest mean score in autonomy in professional development. Moreover, autonomy in professional development is associated with the decisions about in-service training of teachers, which involves time schedule, location, and general criteria for the in-service teacher training activities. Turkey has a centralized education system which influences decision-making processes of many issues such as educational policy, curriculum development, teaching content in instructional materials, school administration and in-service training of teachers (Yıldırım, 2003). Due to the restrained structure of decision-making processes which does not prioritize the involvement of teachers especially in in-service teacher training activities, this relationship between all the subscales of teacher reflection and autonomy in professional development could be shown as the weakest correlation among all the subscales.
5.1.3. Results of Teacher Reflection Related to Certain Variables (Gender, Years of Experience and Teaching Grade Level)

In terms of gender, teacher reflection score significantly varied between female and male participants. The results showed that female teachers were more reflective than their male counterparts considering all of the means of measurement. As for the examination of subscales, a significant difference existed in practical and cognitive subscales. Practical reflection is associated with keeping journals, exchange of ideas with colleagues, observations and teaching portfolios; and cognitive reflection is about teachers’ conscious efforts for achieving professional development such as reading books and journals (Akbari et al., 2010). Based on the findings of the study, it can be claimed that female teachers are more inclined to participate in terms of sharing their opinions on teaching practices, and follow their professional development with more conscious efforts. This result also can be explained through socio-cultural factors, since engaging in reflective practices calls for openness to share one’s thoughts, and in countries such as Turkey, men, in general, refrain from disclosing their feelings and thoughts.

This finding was concurrent with Korumaz’s (2012) study for English teachers, which found a statistically significant gender-based difference in favor of female teachers in reflective teaching. However, there are other studies (Kayapınar & Erkuş, 2009; Gözüyeşil & Aslandağ-Soylu, 2014) which revealed that the reflection scores of teachers did not vary according to gender in different contexts.

On the other hand, with respect to other demographic variables such as years of experience and teaching grade level, the findings of the study did not
indicate a significant difference in teacher reflection score. The results related to years of experience was surprising since reflective practice is defined as the process of learning through and from experience (Schön, 1987; Finlay, 2008). However, the breadth of experiences can be considered as an important factor that influence difference in teacher reflection score according to years of experience. On the other side, the result related to years of experience in current study differed from the findings of the study conducted by Kayapınar and Erkuş (2009) which shows a positive significant correlation between teaching experience and teachers’ reflection.

In addition, nonsignificant result related to teaching grade level in teacher reflection score can be explained with the situation that current study included students at the same elementary stage of school system, classroom dynamics could be more approximate.

5.1.4. Results of Teacher Autonomy Related to Certain Variables (Gender, Years of Experience and Teaching Grade Level)

The results related to teacher autonomy according to gender revealed that there was no significant difference between mean scores of female and male participants. It shall be noted that there are studies with different results in the related literature. In the study by Pearson and Hall (1993), teacher autonomy did not vary in terms of gender, whereas another study which is conducted by Vasile (2013) revealed a difference in favor of male teachers. This nonsignificant result of present study shows that teachers’ autonomy perception is not influenced by their gender.

According to the results related to years of experience, there was no significant difference in teacher autonomy score according to years of experience. This
result points out that autonomy feeling of teachers do not vary in terms of the years spend in teaching. In addition, this result was consistent with the study by Pearson and Hall (1993) which found that teacher autonomy did not correlate with teaching experience. On the other hand, in another study (Evelein et al., 2008) which focus on the fulfilment of basic psychological needs including autonomy of student teachers during their first teaching experiences revealed a different result. According to the study done by Evelein et al. (2008), the fulfilment of the need for autonomy in student teachers is considerably less than in experienced teachers.

On the other hand, findings showed no significant difference in teacher autonomy score according to teaching grade levels. This result was different from the results of the study by Pearson and Hall (1993) revealed a significant relationship between teacher autonomy and the grade levels of teachers. However, this significant difference in the study of Pearson and Hall (1993) was between teaching grade levels in elementary, middle and high stages. The explanation for nonsignificant result in teacher autonomy according to teaching grade levels can be also valid for teacher reflection. Accordingly, since the teaching grade levels in the current study include students who are in close ages at the same elementary stage of school system, classroom dynamics could be more approximate.

5.2. Implications

The presented study was conducted with the classroom teachers working in public elementary schools. The results of the study revealed a positive significant relationship between teacher reflection and teacher autonomy and their subscales, what is more, while teacher reflection scores differed
significantly according to gender, teacher autonomy score did not differ significantly according to certain variables. Based on the results, some implications were suggested in relation to teacher reflection and teacher autonomy for education system and teacher education in Turkey.

This study demonstrated a strong relationship between two crucial factors of teacher professionalism which can be referred to as teacher reflection and teacher autonomy. In teacher education the programs reviewed in Turkey, the aim of the program is to educate teachers as problem-solving intellectuals rather than technicians who do what they are told to do (Council of Higher Education [CoHE], 2007). However, the role of teacher as technician is inclined to maintain with a centralist structure of decision-making processes which does not prioritize the involvement of teachers by ignoring their knowledge and expertise of them. In accordance with this, Cakcak Tezgiden (2015) claims that teacher candidates in Turkey, are educated as dependent technician teachers who are not motivated to take active leading roles to initiate educational reforms. When teachers are actively involved in the decision making processes in job related activities such as curriculum design, professional development, instructional planning, they can develop their reflective teaching abilities with the sense of professional empowerment. Besides, the opposite is also true. When teachers find opportunities to apply and develop reflective practices, they can feel a higher sense of autonomy along with the motivation to take more responsibility. All in all, teacher education system in Turkey should educate teachers as reflective practitioners as it is aimed. Following this, at schools and as a part of the general education system, teachers need to be given more space for active participation in decision making processes concerning all stages of educational policies in
order to realize themselves as professionals. In such an educational ecosystem, teachers will be able to act as educational leaders.

On the other hand, the result revealed teacher reflection score which differs significantly differed according to gender shows that female teachers are more engaged in reflective thinking and practice. Based on this result, in teacher education programs male candidates should be more encouraged more in teacher education programs to express their thoughts and feelings on practice. Moreover, providing a participative and mutual learning environment for both female and male teachers can be a focus in schools.

5.3. Recommendations for Further Research

In the light of the results of the study, the following insights for future research studies were constructed.

- The presented study was conducted with the classroom teachers working in public elementary schools in three main districts of Ankara. In another study a larger sample can be chosen to increase generalizability.

- Teacher reflection and teacher autonomy can be examined according to other variables such as educational degree held, class size to have a better understanding in teachers’ characteristics.

- The study carried out with elementary school teachers, further study can be conducted with teachers in other teaching fields and stages of school system.
• A comparative study on teacher reflection and teacher autonomy and their relationship can be conduct for teachers working in private and public schools.

• In further studies, teachers’ self-efficacy beliefs can be included as a third variable.

• In further studies, using more sophisticated statistical analysis showing main effects and interactions can be conducted.
REFERENCES


Zhao, Y. (2009). *Catching up or leading the way - American education in the age of globalization*. Virginia: ASCD.
APPENDICES

APPENDIX A

Permission from Human Subjects Ethics Committee of Middle East Technical University
APPENDIX B

Permission from Provincial Directorate for National Education in Ankara
YANSITICI ÖĞRETİM VE ÖĞRETMEN ÖZERKLİĞİ ARASINDAKİ İLİŞKİNİN BELİRLİ DEĞİŞKENLERE GÖRE İNCELENMESİ

GİRİŞ
Günümüz dünyasında, öğretmenler çalışma ortamlarında oldukça karmaşık, öngörülemez ve problemli durumlar ile karşılaşıyorlar ve birçok açıdan durumu değerlendirerek anlık olarak en etkili kararları verebilmeleri beklenmektedir. Bu nedenle öğretmenlerin günümüz toplumunun taleplerine karşılık verebilmek için yüksek motivasyona sahip ve becerileri bireyler olmayı gerektirecek şekilde devamlı olarak evrilmektedir (Zhao, 2009).

Öğretmenlik meşgulindeki değişimin bir parçası olarak, yansıtıcılık birçok ülkedeki mevcut öğretmen eğitim programlarında etkin bir öğretmenin kritik bir özelliği olarak kabul edilmektedir ve tanımlanmaktadır. Dolayısıyla yansıtıcı öğretimde yansıtıcılık becerisinin öğretim standartlarından biri olarak kabul edildiğini belirtmektedir.

John Dewey tarafından teorileştirilen yansıtıcı düşünce yansıtıcı öğretimin temel basamağı olarak öğretim ve öğrenme ortamlarında öncü bir kavram haline gelmiştir. Dewey (1933) öğretimi, önceden belirlenmiş eylemlerin rutin bir dizini değil, öğretmenlerin her benzersiz durumda sorunları aktif olarak

gelişiminin sorumluluğını alan bireyler” olarak tanımlar (s. 6).


Yansıtıcı öğretim ile öğretmenlerin hissettikleri özerklik arasındaki ilişkinin araştırılması neticesinde ortaya konulacak olan sonuçların öğretmenlerin yansıticı öğretim becerilerinin anlaşılamasına çalışma ortamındaki özerklik perspektifinden ışık tutulabileceği. Bununla birlikte, yansıticı öğretim ve hissedilen öğretmen özerkliğinin cinsiyet ve öğretim deneyimi olarak seçilen değişkenlere göre araştırılması ile elde edilen bulgular, öğretmenlerin özellikleri hakkında daha iyi bir anlayış geliştirilmesine ve eğitimcilerin öğretmen eğitimi ve öğretmenlerin özerklik algılarını geliştirmelerine yardımcı olabilecektir.

Bu çalışmanın amacı yansıticı öğretim ve öğretmen özerkliği ve bu değişkenlerin alt faktörleri arasında anlamli bir ilişki olup olmadığını
incelemektir. Dahasi, bu çalışma ile yansıtıcı öğretim ve öğretmen özerkliğinin cinsiyet, öğretmenlik deneyimi ve öğretim yapılan sınıf düzeyi değişkenlerine göre anlamlı bir farklılık gösterip göstermediğinin belirlenmesi amaçlanmaktadır.

LİTERATÜR TARAMASI

Yansıtıcı Öğretim


Dewey’in çalışmalarının devamında, Donald Schön’ün (1983, 1987) çalışmaları ile öğretmen eğitiminde uygulamada yansıtıcı düşünceyi odağa
alan “yansıtıcı uygulama” dikkat kazanmaya başlamıştır. Schön, yansıtıcı uygulayıcı bir öğretmeni sürekli olarak tecrübeckülerinden öğrenen ve yansıtma ile bilgiyi ve anlamı yeniden yapılandırarak olarak tanımlamaktadır.


Bu noktada, Zeichner ve Liston (1996) tarafından yapılan yansıtıcı uygulayıcı öğretmenin özelliklerine ilişkin tanım daha iyi bir anlayış sunabileceği. Söz konusu teoristlere göre, yansıtıcı uygulayıcı bir öğretmen;

- Uygulamada ortaya çıkan ikilemleri inceler ve çözme girişiminde bulunur;
- Öğretim sürecine taşıdığı varsayımın ve değerlerin farkında olur ve bunları sorgular;
- Öğretim yaptığı kurumsal ve kültürel bağlama duyarlıdır;
- Öğretim programlarının geliştirilmesi ve okulun değişim çalışmaları süreçlerinde rol alır;
- Kendi mesleki gelişimine ilişkin sorumluluk alır (s. 6).

Verilen bütün bu özellikler dikkate alındığında, yansıtıcı uygulayıcı bir öğretmenin eğitim ortamında etkin ve lider bir rol oynadığı sonucuna ulaşılabilmeaktedir.

**Öğretmen Özerkliği**

Bu araştırmada incelenen bir diğer kavram olan öğretmen özerkliği en temel anlamıyla öğretmenlerin eğitim ortamlarında karar verme süreçlerinde kendi sesleri ile bağimsız varlıklarını ortaya koyabilmelerine karşılık gelmektedir. İlgili literatürde, öğretmen özerkliğinin tanımına ilişkin bir fikir birliği bulunmamakta ve öğretmen özerkliğini öğretmenin sahip olduğu beceri/kapasite ve ona verilen özgürlük olarak tanımlayan farklı görüş açıları mevcuttur. Bu doğrultuda, ilk açıdan başlayacak olursak öğretmen özerkliği, öğretmenlerin öz yönlendirilmiş öğretim sağlayabilme konusunda sahip olduklarını beceri (Little, 1995); paylaşımı bir yaklaşım içinde mesleki beceri ve
tutum gelişirebilme kapasitesi (Smith, 2000); öğretmenlerin öğretimlerini özgür bir biçimde yönlendirme ve karar verme kapasitesi (Javadi, 2014); ve karar verme becerisi (Pearson, 1995; Sentovich, 2004) olarak öğretmenlere öğretim ortamlarında eleştirel bir varlık sürdürme için tercih ve belirleme alanı sunan bir kavram olarak ele alınmıştır. Benzer şekilde, Shaw (2002) öğretmenin hissettiği özverinin düzeyinin kendi becerisi ve kapasitesine bağlı olduğunu iddia etmektedir. Bununla birlikte, söz konusu özverinin düzeyinin yalnızca iç faktörlere bağlı olarak değil, politik, kurumsal ve öğretimsel faktörlere bağlı olarak da farklılık gösterebileceğini eklemektedir. Diğer taraftan, öğretmen özverisi aynı zamanda öğretmenlere mesleki karar süreçlerinde, ders içeriği planlamasında, öğretim ortamlarını düzenlemede aktif olabilmelerine ve sorumluluk almalarına imkan sağlayarak özgürlüklerin verilmesi olarak tanımlanmaktadır (Friedman, 1999).


Öte yandan, literatürde öğretmen özverisi farklı boyutlarıyla araştırılmıştır. Öztürk (2011) bu konuda, öğretmen özverisi kavramının sadece öğretim
süreçlerinin planlanmasyla sınırlı olmadığını, öğretmenin motivasyonu, iş doyumu, öğretmenliği algılayışı ve öğretmen düzenleyiş biçimleri ve okul yönetimine katılım gibi konularda da önemli rol oynadığını ifade etmiştir.

**Yansıticı Öğretim ve Öğretmen Özerkliği Arasındaki İlişki Üzerine Yapılan Araştırmalar**


Bununla birlikte, demografik değişkenlere göre yansıticı öğretim ve öğretmen özerkliği üzerine yapılan çalışmalarla ilişkin literatüre yer verilmiştir.
YÖNTEM


Veri Toplama Araçları

1. Yansıtıcı Öğretim Ölçeği

Yansıtıcı Öğretim Ölçeği İngilizce öğretmenleri için Akbari ve diğerleri (2010) tarafından geliştirilmiş ve Korumaz (2012) tarafından yine İngilizce öğretmenleri için Türkçe uyarlanmıştır. Yansıtıcı Öğretim Ölçeği-Türkçe 5 alt faktöre ait 29 maddeden oluşan, beş dereceli (1='asla' ile 5='Her zaman' arasında değişen) Likert tipi bir ölçektir. Ölçeğin alt faktörleri şöyledir; (1)
uygulama, (2) bilişsel, (3) öğrenen, (4) üst bilişsel, (5) eleştirel.

Ölçeğin ilkokul sınıf öğretmenlerine uygulanabilirliğinin test edilmesi amacıyla bu örneklemde geçerlik ve güvenilirliğini araştırmak üzere pilot çalışması gerçekleştirilmiştir. Pilot çalışma, Türk Eğitim Derneği'ne bağlı okullarda sınıf öğretmenliği yapmakta olan 237 öğretmene uygulanmıştır. Bu çalışma kapsamında ölçeğin geçerliği Doğrulayıcı Faktör Analizi (DFA) ve örneklem için güvenilirliği Cronbach’s Alpha katsayısı ile test edilmiştir. Sözü edilen analizlerde elde edilen değerler doğrultusunda Yansıtıcı Öğretim Ölçeğinin geçerli ve güvenilir olduğuna karar verilmiştir.

2. Öğretmen Özerklik Ölçeği

Öğretmen Özerklik Ölçeği-Türkçe, Ulaş ve Aksu (2015) tarafından geliştirilmiş olup, 3 alt faktöre ait 18 maddeden oluşan beş dereceli (1= ‘Hiç’ ile 5= ‘Tamamen’ arasında geçen) Likert tipi bir ölçektir. Ölçeğin alt faktörleri şöyledir; (1) öğretimi planlama ve uygulama, (2) mesleki gelişim, (3) eğitim programları ile ilgili karar verme.

3. Demografik Bilgi Formu

Bu form katılımcıların cinsiyetleri, öğretmenlik deneyimleri (0-4, 5-9, 10-14, 15-19, 20 yıl ve üzeri), hangi sınıf düzeyinde eğitim verdikleri (1., 2., 3. ve 4. Sınıf) ile ilgili 3 sorudan oluşmuştur.

BULGULAR

Yansıtıcı öğretim ve öğretmen özerkliği arasındaki ilişki Pearson korelasyon katsayısı ile analiz edilmiştir. Bu ilişkisel analize göre, yansıtıcı öğretim ve öğretmen özerkliği arasında anlamlı pozitif ilişki bulunmuştur ($r=.51$, $p<.01$).
Öğretmen özerkliği ve yansıticı öğretim değişkenlerinin alt faktörleri arasındaki ilişkiyi incelemek için Pearson korelasyon katsayısı kullanılmıştır. Buna göre, bütün alt faktörler arasında anlamlı pozitif bir ilişki olduğu tespit edilirken Pearson korelasyon katsayısı en düşük .16’dan en yüksek .45’e kadar değer göstermiştir.

Yansıtıcı öğretimin puanlarının cinsiyet, öğretmenlik deneyimi süresi ve öğretim yapılan sınıf düzeyine göre nasıl değiştiğini incelemek için bağımsız t-test ve tek yönlü varyans analizi kullanılmıştır. Buna göre yansıticı öğretim puanlarının cinsiyete göre nasıl değiştiği bağımsız t-test ile incelenmiş ve kadın ve erkek katılımcıların yansıticı öğretim puanlarının cinsiyete göre anlamlı bir farklılık gösterdiğini tespit edilmiştir (t (282) = 2.409, p = .02). Kadın öğretmenlerin erkek öğretmenlere göre yansıticı öğretim puanları anlamalı şekilde daha yüksek belirlenmiştir. Diğer taraftan, yansıticı öğretim puanlarının öğretmenlik deneyimi süresi ve öğretim yapılan sınıf düzeyine göre anlamlı bir farklilik göstermediği tek yönlü varyans analizi ile incelenmiştir. Buna göre, öğretmenlerin yansıticı öğretim puanlarının öğretmenlik deneyimi süresine göre anlamalı bir farklilik göstermediği bulunmuştur (F (4, 279) = 1.80, p = .13). Aynı zamanda, öğretmenlerin yansıticı öğretim puanları öğretim yapılan sınıf düzeyine göre de anlamalı bir farklilik göstermemiştir (F (3, 280) = 0.27, p = .85).

Öğretmen özerkliği puanlarının cinsiyet, öğretmenlik deneyimi süresi ve öğretim yapılan sınıf düzeyine göre nasıl değiştiğini incelemek için bağımsız t-test ve tek yönlü varyans analizi kullanılmıştır.

Buna göre öğretmen özerkliği puanlarının cinsiyete göre nasıl değiştiği bağımsız t-test ile incelenmiş ve kadın ve erkek öğretmenlerin öğretmen
özerkliği puanlarının cinsiyete göre anlamlı bir farklılık göstermediği tespit edilmiştir \((p>.05)\). Diğer taraftan, öğretmen özerkliği puanlarının öğretmenlik deneyimi süresine göre anlamlı bir farklılık gösterip göstermediği tek yönlü varyans analizi ile incelenmiştir. Buna göre, öğretmenlerin öğretmen özerkliği puanlarının öğretmenlik deneyimi süresine göre anlamlı bir farklılık göstermediği bulunmuştur \((F(4, 279) = 1.70, p = .15)\). Bir diğer demografik değişken olarak, öğretmen özerkliği puanlarının öğretim yapılan sınıf düzeyine göre nasıl değiştiği tek yönlü varyans analizi ile incelenmiştir. Bu analize göre, öğretmenlerin öğretmen özerkliği puanları öğretim yapılan sınıf düzeyine göre anlamlı bir farklılık göstermemiştir \((F(3, 280) = 0.37, p = .78)\).

**TARTIŞMA**


Yansıtıcı öğretim ile öğretmen özerkliği arasında ortaya konan anlamlı pozitif ilişki \((r=.51)\) güçlü bir ilişki düzeyine karşılık gelmektedir. Bu bulgu, yansıtıcı öğretim ile daha ilişkili olan öğretmenlerin daha yüksek özerklik algılama eğiliminde olduğunu, ya da diğer açıdan yüksek özerklik algılayan öğretmenlerin yansıtıcı öğretim uygulamaları ile daha ilişkili olma eğiliminde olduğunu göstermektedir. Mevcut çalışmada ortaya konan bu bulgu,
Noormohammadi (2014) tarafından gerçekleştirilen ve İngilizce öğretmenleri örnekleminde yansıtıcı öğretim ile öğretmen özerkliği arasında anlamlı bir ilişki tespit eden çalışmanın bulguları ile paralellik göstermektedir. Bu çalışma ile bu ilişki sınıf öğretmenleri örnekleminde ve Türkiye bağlamında genişletilmiştir.


Çalışmanın bulguları, yansıtıcı öğretim ve öğretmen özerkliği değişkenlerine ait bütün alt faktörler arasında anlamlı bir ilişkinin varlığını ortaya koymmuştur. Buna göre alt faktörler arasındaki ilişkinin derecesi zayıftan güçlüye değişmektedir.
Öğretmen özerkliği değişkenine ait öğretimi planlama ve uygulama alt faktörü yansıtıcı öğretimin bütün alt faktörleri ile ortadan güçlüye ilişki göstermiştir \( (r = .29 - r = .45) \). Bu bulgu yansıtıcı öğretim uygulamaları ile daha ilişkili olan öğretmenlerin öğretimi planlama ve uygulama konularında daha özerk hissetme eğilimi olduğunu işaret etmektedir. Buna ek olarak, yansıtıcı öğretim değişkenine ait bütün alt faktörlerin öğretmen özerkliği değişkenine ait eğitim programları ile ilgili karar verme alt faktörü ile orta derecede \( (r = .28 - r = .34) \) ilişki olduğu belirlenmiştir. Dolayısıyla, yansıtıcı öğretim uygulamaları ile daha fazla ilişkili olan öğretmenlerin kendilerini öğretim programları ile ilgili konularda karar alırken daha özerk hissetme eğiliminde olduğu sonucuna ulaşılmıştır. Bu sonuç, Noormohammadi (2014) tarafından gerçekleştirilen ve öğretim programları konusundaki özerkliğin yansıtıcı öğretim değişkeninin bütün alt faktörleri ile anlamlı bir ilişkili olduğu bulgusuna ulaşılın çalışıma ile tutarlık göstermektedir. Diğer taraftan, yansıtıcı öğretim değişkenine ait alt faktörler ile öğretmen özerkliği değişkenine ait mesleki gelişim alt faktörü zayıftan orta dereceye \( (r = .16 - r = .34) \) bir ilişki göstermiştir. Mesleki gelişim alt faktörü yansıtıcı öğretim alt faktörleri ile genel çerçevede nispeten daha zayıf bir ilişki ortaya koymuştur.

Demografik değişkenlere ilişkin bulgulara göre, yansıtıcı öğretim puanlarının kadın öğretmenler lehine anlamlı bir farklılık gösterdiği belirlenmiştir. Bu farklılığın uygulama ve bilişsel alt faktörlerinde anlamlı olduğu görülmüştür. Bu bulgu ışığında, kadın öğretmenlerin fikirlerini paylaşmaya ve mesleki gelişimleri konusunda çaba sarf etmeye daha eğilimli olduğu ileri sürülabilir. Söz konusu bulgu, Korumaz (2012) tarafından İngilizce öğretmenleri ile gerçekleştirilen ve yansıtıcı öğretim konusunda kadınlar lehine anlamlı bir farklılık ortaya koyan çalışma ile paralellik gösterirken, yansıtıcı öğretim
puanlarının cinsiyete göre farklılaşmadığı çalışmalarda (Kayapınar ve Erkuş, 2009; Gözüyeşil ve Aslandağ-Soylu, 2014) mevcuttur.


UYGULAMAYA YÖNELİK ÖNERİLER

Çalışmanın sonuçlarına bağlı olarak, öğretmenlerin yansıtıcı uygulayıcı olarak yetiştirilmeleri ve öğretmenlere eğitim konularındaki karar alım süreçlerinde daha fazla özerklik alanı açılması için eğitim ile ilgili taraflara gerekli adımların atılması yönünde önerilerde bulunulmuştur. Böyle bir eğitim ekosisteminde öğretmenler eğitim liderleri olarak rol oynayabilecektir.

GELECEK ÇALIŞMALAR İÇİN ÖNERİLER

İleride yapılacak çalışmalar için verilen öneriler şu şekildedir:


- Bu çalışma ilkokul kademesinde görev yapan sınıf öğretmenleri ile gerçekleştirilmiştir. Daha sonraki bir çalışmada farklı okul kademelerinde görev yapan öğretmenler ve farklı branş öğretmenleri tercih edilebilir.

- Öğretmenlere ilişkin özelliklerin etkisinin daha iyi anlaşılabilmesi için yansıtıcı öğretim ve öğretmen özerkliği, eğitim düzeyi, eğitim yapılan sınıf büyüklüğü gibi farklı demografik değişkenlere göre incelenebilir.

- Yansıtıcı öğretim ve öğretmen özerkliği ilişkisinin devlet okulları ve özel okullarda görev yapan öğretmenler için incelendiği karşılaştırmalı bir çalışma yapılabilir.
• Daha sonraki bir çalışmada, öğretmenlerin öz yeterlik algıları ilişkisinin incelendiği üçüncü bir değişken olarak çalışmaya dahil edilebilir.

• Daha sonraki bir çalışmada, demografik değişkenlerin birbiri ile olan etkileşimlerini ve ana etkileri ortaya koyan daha ileri ve çok yönlü analizler gerçekleştirilebilir.
APPENDIX D

Tez Fotokopisi İzin Formu

ENSTİTÜ

Fen Bilimleri Enstitüsü
Sosyal Bilimler Enstitüsü
Uygulamalı Matematik Enstitüsü
Enformatik Enstitüsü
Deniz Bilimleri Enstitüsü

YAZARIN

Soyadı : Şahin İpek
Adı : Derya
Bölümü : Eğitim Bilimleri

TEZİN ADI (İngilizce) : The Relationship Between Teacher Reflection and Teacher Autonomy with Respect to Certain Variables

TEZİN TÜRÜ : Yüksek Lisans Doktora

1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir.

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

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

TEZİN KÜTÜPHANEYE TESLİM TARİHİ: