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THE RELATIONSHIP AMONG PROFESSIONAL AUTONOMY, REFLECTIVE PRACTICE AND BURNOUT OF ENGLISH LANGUAGE INSTRUCTORS IN TURKEY

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İngilizce Adı: The Relationship among Professional Autonomy, Reflective Practice and Burnout of English Language Instructors in Turkey

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Tez yazma sürecinde bilimsel ve etik ilkelere uyduğumu, yararlandığım tüm kaynakları kaynak gösterme ilkelerine uygun olarak kaynakçada belirttiğimi ve bu bölümler dışındaki tüm ifadelerin şahsıma ait olduğunu beyan ederim.

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Ayşegül OKAY tarafından hazırlanan "Türkiye'deki İngilizce Öğretim Görevlilerinin Mesleki Özerkliği, Yansıtıcı Uygulamaları ve Tükenmişlikleri Arasındaki İlişki" adlı tez çalışması aşağıdaki jüri tarafından oy birliği ile Gazi Üniversitesi Yabancı Diller Eğitimi Anabilim Dalı'nda Doktora tezi olarak kabul edilmiştir.

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To my grandfathers and grandmothers,
whom I could not even get to know,
but whose blessed presence over me
I have always been sure of…

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TÜRKİYE'DEKİ İNGİLİZCE ÖĞRETİM GÖREVLİLERİNİN MESLEKİ ÖZERKLİĞİ, YANSITICI UYGULAMALARI VE TÜKENMİŞLİKLERİ ARASINDAKİ İLİŞKİ

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ÖZ

Son yıllarda eğitim teorilerinde gerçekleşen köklü değişiklikler, öğrenci ve öğretmen rollerine de bir çok değişikliği beraberinde getirmiştir. Öğrenciler pasif bilgi alıcılığı rollerinden sıyrılıp, kendi eğitim yolculuklarının neferi olurlarken; öğretmenler de buna paralel olarak, yol gösterme, danışmanlık, yardımcılık, yöneticilik, rehberlik gibi roller üstlenmek durumunda kalmışlardır. Bu değişiklikler, öğretmenlerin meslekleriyle ilgili kendilerini sürekli yenilemesi anlamına gelmektedir çünkü öğretmenlerin mesleki bilgi ve becerilerini, eğitim-öğretimdeki son değişiklerle eş zamanlı olarak yenilememeleri durumunda, halihazırdaki bu bilgi ve beceriler güncelliğini yitirecek ve eskiyecektir. Bu nedenle, bu doktora tezinin esas çalışma konusu, öğretmenlerin, öğrencileri ve meslektaşları ile birlikte, kendilerini mesleki olarak geliştirmek için sahip oldukları yeterlik, istek, ve zaman olarak tanımlanan öğretmenlerin mesleki özerkliğidir. Mesleki özerklik, öğretmenlerin mesleki uygulamalarını mütemadiyen sorgulamalarını gerektirdiğinden, bu kavramın yansıtıcı uygulama kavramı ile yakından ilişkili olduğu düşünülmüştür. Bu iki ana değişkenin birbirini olumlu yönde beslediği düşünülmekle beraber, her ikisini de olumsuz olarak etkileyeceği varsayıldığından, tükenmişlik kavramı bu çalışmanın üçüncü değişkeni olarak belirlenmiştir. Bu varsayımları test etmek ve araştırma sorularını cevaplamak için, bu çalışma iki aşamalı olarak gerçekleştirilmiştir. İlk aşamada, literatürde öğretmenlerin mesleki özerkliği üzerine herhangi bir ölçme aracı bulunmadığından, nitel bir ölçme aracı olan Öğretmenlerin Mesleki Özerkliği Anketi geliştirilmiştir. Bu amaçla, mesleğe yeni başlamış ve meslekte deneyimli 15 kişiden oluşan iki grup öğretmenle yapılan odak grup görüşmelerinden gelen veriye ek olarak, literatür taramasında elde edilen kavramlar da anketin madde havuzunu oluştururken kullanılmıştır. Anketin geçerlik ve güvenilirliğini sağlamak için, anketin ilk versiyonu alandaki farklı uzmanlarla paylaşılmış ve kendilerinden alınan geri bildirimlerle gerekli düzenlemeler yapılmıştır. Buna ek olarak yapılan Açıklayıcı ve Doğrulayıcı Madde Analizleri sonucunda, 5 faktör ve 23 madde ile Öğretmenlerin Mesleki Özerkliği Anketi son halini almıştır. Çalışmanın ikinci aşamasında ise ana veri toplanmıştır. Türkiye'nin 7 bölgesinin 36 farklı şehrindeki devlet ve vakıf üniversitelerinin Yabancı Diller Yüksekokullarında öğretim görevlisi olarak çalışan 375 İngilizce öğretmeni çalışmaya gönüllü olarak katılmıştır. Öğretmenlerin mesleki özerkliği, yansıtıcı öğretim uygulamaları ve tükenmişlikleri sırasıyla Öğretmenlerin Mesleki Özerkliği Anketi, İngilizce Öğretimi Yansıtıcılık Envanteri ve Öğretmen Tükenmişlik Ölçeği ile ölçülmüştür. Akbari vd., (2010) tarafından geliştirilen İngilizce Öğretimi Yansıtıcılık Envanterinin, Yeşilbursa (2013) tarafından Türkiye'deki İngilizce öğretmenleri ile geçerliliği sağlamış versiyonu kullanılmıştır. Öğretmen Tükenmişlik Ölçeği ise Richmond, vd., (2001) tarafından geliştirilmiş olup, bu tezde hem öğretmenlerin tükenmişlik seviyelerini göstermesi açısından bir ölçek olarak, hem de tükenmişlik kavramının alt bileşenleri ile ilgili veri sağlaması açısından faktörlere ayrılmış bir anket olarak kullanılmıştır. Veri SPSS 21 ve AMOS 5 programlarıyla yapılan Açıklayıcı ve Doğrulayıcı Faktör Analizleri, t-testi, tek yönlü ANOVA, ve Yapısal Eşitlik Modellemesi analizlerine tabi tutulmuştur. Sonuçlar genel itibariyle yorumlandığında, öğretmenlerin orta üstü seviyede bir mesleki özerkliğe sahip oldukları, yansıtıcı öğretim uygulamalarını zaman zaman yaptıkları, ve tükenmişliklerinin düşük seviyede olduğu görülmüştür. Varsayılan hipotezler ise "Öğretmen Gelişiminde BAR Modeli" olarak, Yapısal Eşitlik Modellemesi analizi ile doğrulanmıştır. Buna göre, öğretmenlerin mesleki özerklik ve yansıtıcı öğretim uygulamalarının birbirini olumlu olarak ve yüksek ölçüde besledikleri; tükenmişliklerinin ise bu iki değişkeni olumsuz olarak etkilediği kanıtlanmıştır. Bu sonuçlar, katılımcıların demografik bilgilerine göre incelendiğinde, on yıldan daha fazla öğretmenlik yapanların, mesleğe yeni başlayanlara nazaran daha az mesleki özerkliğe sahip olduğu görülmüştür. Buna ek olarak, yüksek lisans veya doktora yapan öğretmenlerin, sadece lisans derecesi olan öğretmenlere göre daha fazla mesleki özerkliğe sahip oldukları ve yansıtıcı öğretim uygulamalarını daha sık yaptıkları anlaşılmıştır. Bu çalışmanın en önemli sonuçlarından bir tanesi ise tükenmişlik bağlamında meslektaşları ile bir sorun yaşamamalarına rağmen, mesleki özerklik ya da yansıtıcı uygulama anlamında öğretmenlerin meslektaşları ile birlikte çalışmaya gönülsüz olmalarının ortaya çıkmasıdır. Buradan hareketle, öğretmenlerin mesleki özerklik ve yansıtıcı uygulama anlamında desteklenmesi için, meslektaşlarıyla olan ilişkilerinin güçlenmesi gerektiği ortaya çıkmıştır. Sonuçlarla ilgili öneriler detaylı olarak tartışılmıştır.

Anahtar Kelimeler: öğretmenlerin mesleki özerkliği, yansıtıcı uygulama, tükenmişlik

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(Doctoral Dissertation)

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ABSTRACT

In a number of decades, as the meaning and the nature of learning changed in accordance with the major paradigm shifts in educational theories, both the roles of students and teachers also changed to a considerable extent. As students moved from being passive recipients of knowledge to being 'agents' of their educational destiny, teachers undertook various roles such as guidance, counselling, facilitating, supporting, managing, coaching, and so on. This means that teachers have to keep on learning about their profession *ipso facto* as their current teaching knowledge or skills are bound to wear off unless they continuously update themselves in accordance with the latest changes and developments in educational matters. The main area of investigation of this dissertation was, therefore, teachers' professional autonomy defined as teachers' capability and motives to develop themselves professionally in collaboration with their students and colleagues. This professional autonomy was conceptualized in a close relationship with reflective practice because being professionally autonomous would necessitate teachers' questioning their own teaching practices constantly. The third area of investigation of the present study was burnout as it was hypothesized that whereas reflective practice and teachers' professional autonomy would corroborate each other, burnout would negatively affect both of them. In order to test these hypotheses and answer the research questions, the present study was conducted in two phases. In the first phase, a quantitative questionnaire (Teachers' Professional Autonomy Questionnaire) was constructed from scratch since there was no tool available in the literature to measure teachers' professional autonomy. To this aim, two focus group interviews were carried out with 15 novice and experienced teachers, and the data analysis results were used along with the concepts in the reviewed literature to write the item pool for the questionnaire. This initial version of the questionnaire was subjected to expert feedback sessions, Exploratory and Confirmatory Factor analyses to ensure its validity and reliability, and it was finalized to be used as a psychometric measurement tool. The second phase of the study consisted of the main data collection. A total number of 375 teachers who worked as English instructors at state and private universities in 36 cities and 7 regions of Turkey voluntarily participated in the study. Teachers' professional autonomy, their reflective practices and burnout levels were measured with three quantitative questionnaires, namely Teachers' Professional Autonomy Questionnaire (TEPAQ), English Language Teaching Reflection Inventory (ELTRI), and Teacher Burnout Scale (TBS), respectively. Although ELTRI is an instrument which was developed by Akbari et al., (2001), the construct-validated version of ELTRI by Yeşilbursa (2013) was used in the present study as it had previously been validated in the Turkish context with Turkish EFL teachers. TBS is an instrument which was developed by Richmond et al., (2001). In the present study, TBS was both used as a scale to gauge teachers' burnout levels and as a factorized instrument to examine the sub-components of the burnout construct. The data were analyzed with SPSS 21 and AMOS 5 programs. The overall results indicated that Turkish EFL teachers at tertiary level are professionally autonomous at a medium-high level; they are sometimes reflective; and they have low levels of burnout. The hypothesized relationships among these three main variables were developed into the "BAR Model of Teacher Development", which was investigated through SEM analysis via AMOS 5 program. The SEM analysis verified the hypothesized model, and it confirmed that teachers' professional autonomy and reflective practice strongly corroborate each other, whereas burnout negatively affects both of these variables. When these results were investigated in terms of demographic characteristics of the participants, it was seen that teachers with more than 10 years of teaching experience were less professionally autonomous than the teachers who have recently started teaching. In addition, teachers with an M.A or Ph.D degrees were found to be more reflective and professionally autonomous. Burnout was the only variable which resulted in no significant relationship with any of these demographic variables. The most important finding of the present study was that despite they hardly had any problems with their colleagues which would add to their feeling of burnout, the teachers were found to have a weak relationship with their colleagues when it comes to their professional autonomy and reflective practice. It was therefore concluded that teachers need to be supported in terms of collaborating with their colleagues if they need to increase their professional autonomy and reflective practices. The implications were discussed.

Key Words: teachers' professional autonomy, reflective practice, burnout

Page Number: 210

Supervisor: Assoc. Prof. Dr. Cem BALÇIKANLI

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

ACL	American Culture and Literature
AGFI	Adjusted Goodness-of-Fit Index
ALACT	Action-Looking-Awareness-Creating-Trial
ANOVA	Analysis of Variance
B.A	Bachelor of Arts
BAR	Burnout-Autonomy-Reflection
CALL	Computer Assisted Language Learning
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CMIN/DF	Chi-Square/Degrees of Freedom Ratio
EFA	Exploratory Factor Analysis
EFL	English as a Foreign Language
ELL	English Language and Literature
ELT	English Language Teaching
ELTRI	English Language Teaching Reflection Inventory
ETI	English Translation and Interpreting
FA	Factor Analysis
GFI	Goodness-of-Fit Index
GTCE	General Teaching Council for England
HOELTER	Hoelter Index

IFI	Incremental Fit Index
JD-R	Job Demands-Resources Model of Burnout
KMO	Kaiser-Meyer-Olkin
M.A	Master of Arts
MBI	Maslach Burnout Inventory
NFI	Normed Fit Index
OECD	The Organisation for Economic Co-operation and Development
PCFI	Parsimony-adjusted CFI
PD	Professional Development
PGFI	Parsimony-adjusted GFI
Ph.D	Doctor of Philosophy
PISA	Programme for International Student Assessment
PNFI	Parsimony-adjusted NFI
PRATIO	Parsimony ratio
RFI	Relative Fit Index
RMR	Root-Mean-Square Residual Index
RMSEA	Root Mean Square Error of Approximation
SEM	Structural Equation Modelling
SPSS	Statistical Package for the Social Sciences
TBS	Teacher Burnout Scale
TEPAQ	Teachers' Professional Autonomy Questionnaire
TLI	Tucker-Lewis Index
ZPD	Zone of Proximal Development

CHAPTER I

INTRODUCTION

"To teach is to learn twice."
Joseph Joubert

1.0. Introduction

This chapter presents an overview of the dissertation, including the highlights of the background to the study, statement of the problem, purpose and scope of the study, importance, and the assumptions of the study. Additionally, it provides information on the limitations of the study and definitions of some key concepts studied in this dissertation.

1.1. Background to the Study

The major paradigm shifts in educational theories have brought many changes to the teaching profession in the last few decades. In more than a sixty-year period, the decline of behaviorism and cognitivism led the way to the emergence of constructivism. This resulted in a prominent shift as an emphasis on ‘teaching’ gradually moved to ‘learning’, which meant that rather than performing the act of learning and being passive recipients of knowledge, students are now the *agents* of their educational destiny (Van Lier, 2008, p. 47). Since it would be quite unlikely for students to get accustomed to this new role on their own, it is apparent that they need their teachers’ guidance, counselling, facilitating, supporting, managing, or coaching as they take on these new roles.

At this point, the question is whether teachers are ready to take on these new roles in addition to teaching. Regarding both pre-service and in-service teachers, although it might be assumed that current pre-service teacher education programs have scrutinized their curriculum in accordance with these recent changes in educational paradigms, and thus newly qualified teachers begin their professions equipped with necessary techniques to take on these responsibilities, Aoki and Kobayashi (2009) assert that the time teachers spend in a teacher education program is only a tiny portion of their history of professional and personal development. Therefore, further training becomes necessary both for newly qualified teachers and for teachers already in service to help them get acquainted with these new roles of theirs and additionally to catch up with the recent developments in the teaching profession.

The fact that teachers are expected to continue their professional learning and assume numerous roles besides teaching is only a small portion of what they are supposed to be occupied with on a daily basis. In addition to teaching their subject matter, teachers usually have to deal with difficult students by showing effective classroom management skills. They have to keep up with the syllabus, write tests, and grade papers. Apart from classroom matters, teachers also have to maintain good relationships with administrators, colleagues, and even with parents – no matter how much trouble they might have being in a rapport with them. On top of all these challenges, teachers' working hours are not fixed to a nine-to-five basis. They have to work at home after school hours by grading papers, or preparing lesson plans for the next day. In today's technology age, some teachers even have to be 'online' to care for their students via learning management systems, e-mails, or text messages.

Working in such a heavy and continuous chaos makes teachers extremely vulnerable to burnout. In Nethderlands, De Heus and Diekstra (1999), for example, found that among six types of social professions – i.e., mental health professions, physical health professions, nursing professions, domestic and personal care professions, teachers, and managers – teachers were found to be especially vulnerable to burnout, more than workers in any other social profession. Ranked among the top 3 countries in Programme for International Student Assessment (PISA) 2015 results regarding student performance in science, mathematics and reading (OECD, 2016, p. 321), Finland is also a country where teachers have the highest burnout levels compared with workers in all other human services and white-collar jobs (Kalimo & Hakanen, 2000 – cited from Pyhältö, Pietarinen & Salmela-Aro, 2011, p. 1011). Many studies show that teaching is one of the 'at-risk' professions not only in Europe, but in Africa (Schroeder, Akotia, & Apekey, 2001), Australia (Pillay, Goddard, & Wilss, 2005), Canada (Fernet, Guay, Senecal, & Austin, 2012), China (Lam, Tse, Lam, & Loh, 2010), Korea (Lim & Eo, 2014), North America (Perrachione, Rosser, & Petersen, 2008), Turkey

(Bümen, 2010; Cephe, 2010; Sünbül, 2003), and United States (Fisher, 2011). It is also interesting to note that rather than experienced teachers, novice ones are more vulnerable to burnout (Hoigaard, Giske & Sundsli, 2011). For example, it is found out that as many as one quarter of novice educators in the United States leave the profession within three years (Martin, Sass & Schmitt, 2012).

On the one hand, it is known that there is a variety of personal or administrative factors that might cause teacher burnout such as workload (Hogan & McKnight, 2007), motivation (Fernet, Trépanier, Austin, & Levesque-Côté, 2016), lack of teacher autonomy (Skaalvik & Skaalvik, 2015), teacher beliefs (Lavigne 2014), interpersonal relationships at work (Reeves, Pun & Chung, 2017), and so forth. On the other hand, there is a considerable number of research studies which take a different viewpoint and study the factors which help teachers *stay* in the profession despite difficult circumstances. Among these, teacher autonomy is one of the key factors. Many studies show that teacher autonomy – in the sense of teachers' having control over their work environment, choice of teaching methods, etc. – is associated with higher levels of job satisfaction (Guarino, Santibañez, & Daley, 2006; Khezerlou, 2013; Koustelios, Karabstzaki, & Kousteliou, 2004; Skaalvik & Skaalvik, 2009, 2010, 2014; Zembylas & Papanastasiou, 2006). The reviewed literature also suggests that reflective practice is another significant factor which help teachers stay in the profession. In a number of research studies, for example, it is evidenced that reflection functions as a coping strategy for teachers by diminishing the risk of feeling burnout (Korthagen & Vasalos, 2010; Loughran, 2002). In summary, it is understood that teachers – whether novice or experienced – are at risk of feeling burnout because of numerous influences which cause them to experience stress in their occupations on a daily basis. The feeling of burnout, as indicated in the reviewed literature, can be overcome to a certain extent with a number of factors, including autonomy and reflective practice. Therefore, it can be inferred that there is a close relationship among teacher autonomy, reflective practice, and burnout.

1.2. Statement of the Problem

Although 'teacher autonomy' is the buzzword of the last few decades, it is actually a broad term that encompasses a variety of different meanings. Despite this, teacher autonomy is usually associated with a technical viewpoint and usually referred to as "teachers' locus of control over their work" (Breen & Mann, 1997). In this dissertation, however, teacher autonomy is taken from the aspect of learner autonomy. “If learner autonomy is the capacity, freedom, and/or responsibility to make choices concerning one’s own learning… teacher autonomy, by analogy, can be defined as the capacity, freedom, and/or responsibility to make choices concerning one’s own teaching” (Aoki, 2002 – cited from Benson, 2011, p. 191). It can be argued that teaching is a profession in which teachers need to continue learning in order to keep themselves up to date with recent educational or technological developments. As Henderson (1996) straightforwardly asks: “If you, as a teacher, are not thoughtful about your professional work, how do you expect your students to be thoughtful about their learning?" (p. vii). Therefore, we name the term *teachers' professional autonomy* as a sub-dimension of teacher autonomy and define a professionally autonomous teacher as the one *“who has the capability and motives to develop himself/herself professionally in collaboration with his/her students and colleagues.”*

As explained in detail below, we believe that teachers’ professional autonomy is a key element which is related to a number of different factors, namely teacher autonomy, learner autonomy, professional development, self-mentoring, reflective practice, and burnout.

1.2.1. Teachers’ Professional Autonomy and Teacher Autonomy

Teacher autonomy (in the sense of teachers’ locus of control in the classroom) is, to some extent, dependent on teachers’ professional autonomy. In most schools, teachers usually have to obey governmental, political, and institutional decisions. In addition, they have to be content with whatever facilities, physical conditions, technological equipment and lesson materials that their institution provides them with. This brings along the fact that they have to stick to a standardized curriculum, use pre-determined materials or follow certain assessment procedures, which takes away their freedom to shape teaching and learning processes in the classroom in a way that teachers themselves believe to be appropriate for their own students. However, despite these boundaries and limitations, McGrath (2000) argues that what matters is how a teacher *responds* to these constraints. As he explains, accepting these constraints and acting accordingly in class is one option; whereas the alternative is:

> […] not to carve an independent swathe through constraints, rejecting out of hand what may have been put in place for good reason, but to exercise independent judgement in order to establish a principled strategy which may involve compromise and negotiation as well as determined autonomous action (p.102).

As Benson and Huang (2008) agree, “this view essentially posits teacher professionalism as a pre-condition for teacher autonomy, understood as a form of freedom from constraint achieved through self-directed professional development and activity” (pp. 431-432). Here it is apparent that teachers’ professional autonomy might be the key factor that can lead the way towards teacher autonomy in the classroom. On the other hand, as a number of scholars reported, teachers may already have the freedom to exert control over school matters, but may decide not to exert their autonomy either because they may lack the professional competence to succeed or because they may be unmotivated to do it (Usma, 2007). This viewpoint also adds to the importance of teachers’ professional autonomy so that they can make use of their freedom in the classroom for the sake of their students’ educational improvement and their own professional development.

1.2.2. Teachers’ Professional Autonomy and Learner Autonomy

There is also a common agreement in literature that learner autonomy is dependent on teacher autonomy (Henderson, 1996; Tort-Moloney, 1997; Vieira, 1999). In his seminal paper Little (1995) shows the importance of teacher-learning by clearly stating that “teachers cannot be expected to foster the growth of autonomy in their learners if they do not themselves know what it is to be an autonomous learner” (p.180). Similarly, Voller (1997) explains that one of the most effective ways to help learners to become autonomous is for teachers to continue their professional development by becoming researchers and learners themselves. Since teachers’ professional autonomy in this dissertation draws on Smith’s (2001) concept of “teacher-learner” autonomy which takes teachers as learners of their own profession, it can be argued that teachers’ professional autonomy is a prerequisite to support learner autonomy. To put it differently, in order for teachers to guide their students towards learner autonomy, they should also be autonomous themselves by having the responsibility to keep on learning about their subject matter. In essence, it would be *ipso facto* unprofessional for teachers to turn a blind eye on the recent developments in education and continue teaching the same way as they did in their first years of teaching. What is ideal for both novice and experienced teachers is to be constant learners of their subject matter and take responsibility to continue learning about their profession in order to better their teaching and thus improve their students’ learning.

1.2.3. Teachers' Professional Autonomy and Teachers' Professional Development (PD)

The concept of teachers' professional autonomy in this dissertation includes teachers' *motives* to develop themselves professionally. It can be argued that without any motives, it is highly unlikely for teachers to find the need within themselves develop professionally even if they have professional development (PD) opportunities at hand. For example, it would be unreasonable to expect teachers to benefit from a PD seminar simply because they are attending one. Moreover, even if they do so, there is no guarantee that teachers will automatically transfer what they learn into their classroom. Goodwyn (1997) states that "if student teachers, beginning teachers, and less accomplished colleagues are really going to be a part of a continuum of professional development, then it is essential that those further along that continuum demonstrate their *wish* to be still moving" (italics added – p. 129). Therefore, it can be claimed that this *wish* to be moving is what essentially constitutes teachers' professional autonomy, and it is teachers' professional autonomy that urges teachers to benefit from PD opportunities.

1.2.4. Teachers' Professional Autonomy and Self-Mentoring

According to England Teacher Training Agency (2003), "Each newly qualified teacher in England should have a designated induction tutor for the first year of teaching whose role is in supporting, guiding, assessing, managing, coaching and facilitating that person" (cited from Dymoke & Harrison, 2006, p. 73). There is no doubt that not only newly qualified teachers but also the ones who are in the profession for many years need in-service training to keep up with the recent developments in teaching, to follow latest trends in education, or simply to become aware of their strengths or weaknesses as a teacher. However, many teachers do not have the opportunity to work with a mentor at the institution they work in. Furthermore, it can be argued that working with a mentor only for one year or two is inadequate for teachers in any case because teachers need to improve themselves as long as they are in the profession, which means that both novice and experienced teachers have to be their own mentors. This brings along the fact that teachers should be professionally autonomous, so that they can support, guide, and coach themselves on their own in order to develop professionally until the day they quit or retire from their profession.

1.2.5. Teachers' Professional Autonomy and Reflective Practice

It is known that there is a close relationship between teachers' professional autonomy and their reflective practices. In fact, as early as 1933, Dewey remarked that reflection is equal to professionalism. As for the profession of teaching, Little (1995) explains that:

> Genuinely successful teachers have always been autonomous in the sense of having a strong sense of personal responsibility for their teaching, exercising via continuous *reflection* and analysis the highest possible degree of affective and cognitive control of the teaching process, and exploiting the freedom that this confers" (italics added – p. 179).

Just as teachers need to be autonomous in order to benefit from PD opportunities, they also need to be professionally autonomous in order to carry out and benefit from reflective teaching practices. In a number of studies, for example, it was found that simply exposing teachers to reflective teaching programs does not necessarily guarantee that they will engage in reflective teaching (Gore & Zeichner, 1991; Kelchermans, 1999), which clearly shows the importance of teachers' professional autonomy for reflective practice. As Caro-Bruce and Klehr (2007) agree, teachers who are constantly questioning their own practice are more likely to make use of reflection in ways that benefit both their professional practice and student learning.

1.2.6. Teachers' Professional Autonomy is Necessary to Avoid Burnout

Burnout can simply be defined as "a chronic state of exhaustion due to long-term interpersonal stress" (Schwarzer & Hallum, 2008, p. 154), and there are numerous factors that function as stressors which contribute to teacher burnout. For instance, low salaries (Cephe, 2010), absence of fairness (Hogan & McKnight, 2007), or disruptive student behavior (Skaalvik & Skaalvik, 2015) are among stressors which cause teachers to experience burnout. However, Schonknecht (1997) explains that it is not possible to argue that a certain situation would absolutely cause stress for every teacher. Rather, burnout depends on the way teachers *perceive* stressful situations and the coping strategies they use to deal with them. Lamb (2000) agrees by stating that teachers need to understand the constraints upon their practice, but rather than feeling disempowered, they need to empower themselves by "finding the spaces and opportunities to maneuver" (p. 127). Here, it is understood that if professionally autonomous, teachers would have the capability, motives, and time to consciously seek ways to refrain from the symptoms of burnout. For example, reading books and articles, attending talks and seminars, or simply speaking to friends and colleagues about ways to avoid burnout would prove helpful for teachers to do so. As

Kelchterman and Strittmatter (1999) emphasize, the classic burnout symptoms (i.e. emotional exhaustion, diminished personal accomplishment, and depersonalization) would be reduced in environments where teachers experience positive professional growth.

1.3. Purpose of the Study

Since the reviewed literature suggested no measurement tool to gauge teachers' professional autonomy, the main purpose of this dissertation is to create a questionnaire from scratch to measure teachers' professional autonomy in order to fill this major gap. The second aim of this study is to investigate the relationship among teachers' professional autonomy, their reflective practices, and burnout levels. In addition, a number of other variables – namely, teachers' gender, their level of education, work experience, and the type of university they work at – are examined in accordance with these three major factors. Further relationships with the sub-components of teachers' professional autonomy, reflective practice, and burnout are also investigated.

The research questions asked in this dissertation are as follows:

1. Are Turkish EFL teachers:
    a) professionally autonomous?
    b) reflective?
    c) burned out
2. Do these results differ by:
    a) gender?
    b) level of education?
    c) work experience?
    d) type of university?

The hypotheses generated in this dissertation are as follows:

- H1(1) There is a positive bi-directional relationship between teachers' professional autonomy and their reflective practice.
- H1(2) There is a negative bi-directional relationship between teachers' burnout and their professional autonomy.
- H1(3) There is a negative bi-directional relationship between teachers' burnout and their reflective practice.

In accordance with these hypotheses, further relationships among the sub-factors of teachers' professional autonomy, reflective practice, and burnout are also investigated.

1.4. Importance of the Study

This dissertation is important in a number of ways. First and foremost, it is known that in the last three decades, most of the studies which devote a lot of attention to the construction and validation of a research tool to measure 'teacher autonomy' conceptualize the term as 'a personal sense of freedom to execute professional action' (Usma, 2007). However, teacher autonomy is a phenomenon which needs to be conceptualized from various aspects, and thus it should involve the analysis of personal beliefs, professional competence, and environmental factors that interrelate for the successful exercise of professional discretion (Usma, 2007). Therefore, adopting a multifaceted viewpoint, the present study considers teacher autonomy from *teachers' professional learning* aspect and regards it as a personality trait under the umbrella term of teacher autonomy. In this dissertation, 'teachers' professional autonomy' is defined as "teachers' capability and motives to develop themselves professionally in collaboration with their students and colleagues".

In addition to the fact that there are very few studies which investigate teacher autonomy from this professional learning aspect (Scribner, Hager & Warne, 2002; Smith & Erdoğan, 2008), there are -to our knowledge- no studies which aims to develop a psychometric tool to measure teachers' professional autonomy. To give an example, Pearson and Hall (1993) constructed and validated the "Teaching Autonomy Scale", but as they explain, the items on the scale were designed to elicit the degree to which teachers perceive they have autonomy in the following areas: (a) selection of activities and materials, (b) classroom standards of conduct, (c) instructional planning and sequencing, and (d) personal on-the-job decision making. Below are some sample items from the questionnaire:

- *I am free to be creative in my teaching approach*
- *The selection of student-learning activities in my class is under my control.*
- *What I teach in my class is determined for the most part by myself.*
- *In my class, I have little control over how classroom space is used.*

Similarly, Friedman (1999) created a scale for "Teacher-Work Autonomy" which measures teachers' autonomy in terms of different types of decision-making in the following areas:

(a) principle or routine and (b) pedagogical or organizational. Below are some sample items and the factors (in parentheses) from the questionnaire:

- Teachers define the school's curricular goals and determine their order of preference *(establishing school identity and praxis)*
- Teachers decide on classroom work procedures *(teaching and achievement evaluation)*
- Teachers decide on parental collaboration modes *(parental involvement)*
- Teachers select topics for their in-service training programs based on predetermined school requirements *(staff development)*
- Teachers select the topics for the school's extracurricular activities *(extracurricular subjects)*
- Teachers select teaching methods based on the needs of their students *(curriculum change and development)*

As it is clear from these scales, the instruments on teacher autonomy in literature usually measure the borderlines of teachers' freedom in the classroom, and thus there is no valid and reliable tool available to measure teachers' professional autonomy. As a result, the most important contribution of this dissertation to the literature is "Teachers' Professional Autonomy Questionnaire" (TEPAQ), which is created from scratch because as the reviewed literature suggests, although there are a number of scales which measure teacher autonomy, there is no tool in literature which measures teacher's professional autonomy.

Moreover, in addition to the scarcity of the research studies carried out on this professional development aspect of teacher autonomy, it can be argued that it is also a highly neglected area in the Turkish context as well. To be more specific, regarding the theses and dissertations written in Turkey, a review of Council of Higher Education thesis database reveals that only one Ph.D dissertation and five M.A theses have been written on teacher autonomy as its main area of investigation since the year 2000, and among these, only one of them studied the autonomy of English language teachers. As Öztürk (2011) agrees, the studies which investigate *learner* autonomy are more common in Turkish educational context, so the number studies carried out in terms of teacher autonomy are quite rare, and those carried out with English language teachers are even rarer (Sert, 2006).

In fact, one of the most important aspects of this study is that its participants are the English language teachers who work as instructors at preparatory school of state and foundation universities in Turkey. This target population is deliberately chosen because the preparatory schools of universities are the entities of higher education which usually hold the highest number of students and the highest number of instructors among any other faculties or institutions of a university. Despite this importance, most of the recent studies on teacher autonomy conducted in the Turkish context are carried out with primary school teachers (Güvenç, 2011), primary/secondary/high school teachers (Çelik & Yılmaz, 2015), or pre-service teachers (Balçıkanlı, 2010; Sert, 2006). Because of this, there are -to our knowledge- no studies investigating English language teachers' professional autonomy who work as instructors in the preparatory schools of state and foundation universities in Turkey. As Usma (2007) suggests, further studies which examine teacher autonomy especially in the specific area of foreign language teaching from different theoretical viewpoints are necessary in order to account for the complexity of the term. Last but not least, the reviewed literature on teacher autonomy revealed no studies which investigate teachers' professional autonomy in relation to reflective practice and burnout. As mentioned earlier, there is a common agreement in literature that teachers' professional autonomy is related to reflective practice, and these two factors can function as coping strategies for classical burnout symptoms. Therefore, the fact that this study examines the bilateral relationships among these three variables adds to the importance of this dissertation.

1.5. Assumptions

The first assumption of this dissertation is that since the participants voluntarily participated in the study, they are assumed to have responded to the instruments in the most frank, sincere, and honest way. Second, since the teachers who work at both and foundation universities participated in this study from thirty-six different cities in all seven regions of Turkey, it can also be assumed that the participants are representative in terms of diversity. Another assumption of this dissertation is that the instruments used for data collection are reliable and valid. Both instruments which are used to measure teachers' reflective practices and burnout levels (i.e. English Language Teaching Reflection Inventory and Teacher Burnout Scale) are already validated tools in literature. The instrument designed and constructed specifically in this dissertation (i.e. Teachers' Professional Autonomy Questionnaire) went through numerous processes to ensure its reliability and validity. Lastly, it is assumed that these three instruments are appropriate for gathering data on teachers' professional autonomy, reflective practice, and burnout.

1.6. Limitations

This study has a number of limitations. First, since the participants were not selected through random sampling, the representativeness of the participants is questionable, yet this limitation was sought to be minimized by recruiting participant teachers from a variety of small and big cities in all seven regions of Turkey. Secondly, it is a known fact that we cannot measure human behavior merely by quantitative tools (Tailor, 2005 – cited from Cephe, 2009, p. 184). However, this limitation was tried to be eliminated to a certain extent as the creation process of Teachers' Professional Autonomy Questionnaire included a number of qualitative data collection and analysis techniques as well as quantitative ones which are carried to ensure its validity and reliability as a psychometric measurement tool.

1.7. Definition of Some Key Concepts

EFL Teachers: Teachers who work as instructors at the school of foreign languages of state or foundation universities in Turkey.

Autonomy: Autonomy is a capacity – for detachment, critical reflection, decision-making and independent action (italics original – Little, 1991).

Learner Autonomy***:*** Learner autonomy is characterized by readiness to take charge of one's own learning in the service of one's needs and purposes – this entails a capacity and willingness to act independently and in co-operation with others, as a socially responsible person (Dam, 1995).

Teacher Autonomy: Teacher autonomy primarily refers to teachers' freedom to exercise discretion in curriculum implementation (Benson, 2006).

Teacher-Learner Autonomy: The ability to develop appropriate skills, knowledge and attitudes for oneself as a teacher, in cooperation with others (Smith, 2000).

Teachers' Professional Autonomy: Teachers' capability and motives to develop themselves professionally in collaboration with their students and colleagues.

Reflective Practice: An action based on the active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it (Dewey, 1933).

Burnout: A chronic state of exhaustion due to long-term interpersonal stress within human service professions (Schwarzer & Hallum, 2008).

Teacher Attrition: The loss of teachers from the profession (Ingersoll, 2001).

Teacher Resilience: The process of, capacity for, or outcome of successful adaptation despite challenging circumstances (Bobek, 2002).

CHAPTER II

REVIEW OF LITERATURE

"Without autonomy, our lives are less human."
(Benson, 2000, p. 114)

2.0. Introduction

This chapter deals with the concept of learner autonomy, teacher autonomy, teachers' reflective practice and burnout by presenting a theoretical framework and explaining the conceptual relationships between them, also providing evidence from previously conducted studies.

2.1. Autonomy

2.1.1. Historical Background

Autonomy in educational contexts is a term which began to be recognized with the emergence of several factors throughout the history. One of them is the decline of behaviorism after the World War II. In reaction to the behaviorist approach, which regarded language as a set of behaviors or habits to be taught, the school of psychology moved onto alternative approaches first by taking individuals' cognitive processes into account. In the most basic terms, cognitivists set out to understand how people *processed* knowledge, whereas constructivists questioned how individuals *constructed* knowledge. Scholars such as Bruner (Discovery Learning) or Kelly (Personal Construct Theory) opposed the educational systems where learners only memorized knowledge – they rather argued that learners should construct their own knowledge rather than being told knowledge. Eventually, such terms as education, curriculum, and teaching were begun to be put under the scope.

During the 1970s, Barnes (1976/1992) was arguing that learners can hardly ever put school knowledge into action, while Illich (1971) was questioning 'schooling' itself. Even politicians like Freire (1970) were criticizing the 'banking model' of teaching, where knowledge is only transmitted from teachers to learners.

These ideas triggered a change in language teaching methods. The Audio-Lingual Method, for instance, lost its popularity after the decline of behaviorism. Following cognitive constructivism, the emergence of humanism and social constructivism affected language teaching methods to a great extent. Trying to minimize the teacher's role and help students self-initiate their learning, methods like Silent Way (Gattegno, 1972), Community Language Learning (Curran, 1972), and Suggestopedia (Lozanov, 1978) came out as the products of humanistic approach to language learning. These methods tried to help learners to take a more active role when learning. In Silent Way, for example, teacher's complete silence implies that it is not a teacher's duty to teach – rather, it is students' duty to learn. As Benson (2011) agrees, in order to develop a capacity for autonomy, learners need to be freed from the direction and control of others.

Although this can be considered a shift from dependence to independence, learner autonomy also includes an *interdependence* aspect – a 'social' aspect, which was missing in all former approaches of the school of psychology. That is to say, while there are the supporters of the view that autonomy is an individual act in its very nature, there are also many other scholars who hold the view that autonomy is more of a social-interactive phenomenon, rather than isolation-driven. As Little (1991) argues, "Because we are social beings, our independence is always balanced by dependence; our essential condition is one of interdependence. Total detachment is a principal determining feature not of autonomy but of autism" (p. 5). This social-interactive aspect is a must for learner autonomy because reflection and analysis, which are believed to be among the core components of learner autonomy, are dependent on a person's capacity to engage himself/herself in social interactions (Little, 1996).

However, it was not until Vygotsky introduced social-constructivism and his influential Zone of Proximal Development (ZPD) theory that the missing 'social' component in the concept of learner autonomy was completed. Vygotsky (1978) argued that language is for interacting with people, and ZPD suggested that learning is only possible when a learner is in a meaningful interaction with a more competent person. This theory also formed the basis of Communicative Language Teaching method, in which learners work in collaboration and cooperation in order to interact meaningfully to accomplish certain real-life tasks. Therefore, whereas learner autonomy might imply a shift towards dependence to independence, this collaborative and cooperative function of social-constructivist approach serves for the interdependence aspect of learner autonomy. As Kohonen (1992) agrees 'Autonomy includes the notion of interdependence – that is being responsible for one's own conduct in the social context: being able to cooperate with others and solve conflicts in constructive ways' (p.19).

Apart from the decline of behaviorism and its aforementioned consequences, there was another emergence in the 1970s which made the term 'learner autonomy' recognized and widely-used all around Europe. It was the introduction of Council of Europe Modern Languages Project in 1971. It was a project which valued linguistic and cultural diversity, and, thus, terms such as *plurilingualism* and *pluriculturalism* became significant. The main aim of the project was to raise more intercultural speakers throughout Europe. A part of this project, Common European Framework of Reference for Languages, provided standardization to allow any speaker to see the necessary language skills to communicate at a certain level in a specific language. Self-assessment, in which speakers (or language learners) can evaluate their language skills by themselves, became important. In the project, in Trim's (1978) words, it was important for a learner to "steer and control his own progress so far as possible" (p. 1). Steering and controlling one's own progress while learning mainly constitutes the key aspect of learner autonomy. Holec (1981), giving the most influential definition of autonomy of all times, states that autonomy is "the ability to take charge one's own learning" (p. 3). Holec (1981) explains that taking charge means having and holding the responsibility for all the decisions concerning all aspects of this learning, which are:

- determining the objectives
- defining the contents and progressions
- selecting methods and techniques to be used
- monitoring the procedure of acquisition properly speaking (rhythm, time, place, etc.)
- evaluating what has been acquired (p. 3)

2.1.2. Defining Learner Autonomy

As it can be seen, autonomy is a concept which has more than one dimension or one definition. According to Little (1991), autonomy is a *capacity* – for detachment, critical reflection, decision-making and independent action (p. 4). For Dam (2001), autonomous learning is "what takes place in situations in which teacher is expected to provide a learning environment where the learners are given the possibility consciously to be involved in their own learning and thus become autonomous learners. (p. 49). Dickinson (1987) describes autonomy as “the situation in which the learner is totally responsible for all of the decisions concerned with his learning and the implementation of those decisions” (p. 11). Dam (1995) gives the famous ‘Bergen definition’ stating that “learner autonomy is characterized by readiness to take charge of one’s own learning in the service of one’s needs and purposes – this entails a capacity and willingness to act independently and in co-operation with others, as a socially responsible person” (p.1).

In addition to these four dimensions, Benson and Voller (1997) uses autonomy in five different senses: (1) for *situations* in which learners study entirely on their own; (2) for a set of *skills* which can be learned and applied in self-directed learning; (3) for an inborn *capacity* which is suppressed by institutional education; (4) for the exercise of *learners' responsibility* for their own learning; (5) for the *right* of learners to determine the direction of their own learning (p. 2 – italics original). Sinclair (2000), on the other hand, explains 13 aspects related to autonomy:

1. Autonomy is a construct of capacity.
2. Autonomy involves willingness on the part of the learner to take responsibility for their own learning.
3. The capacity and willingness of learners to take such responsibility is not necessarily innate.
4. Complete autonomy is an idealistic goal.
5. There are degrees of autonomy.
6. The degrees of autonomy are unstable and variable.
7. Autonomy is not simply a matter of placing learners in situations where they have to be independent.
8. Developing autonomy requires conscious awareness of the learning process, i.e. conscious reflection and decision-making.
9. Promoting autonomy is not simply a matter of teaching strategies.
10. Autonomy can take place both inside and outside the classroom.
11. Autonomy has a social as well as an individual dimension.
12. The promotion of learner autonomy has a political as well as psychological dimension.
13. Autonomy is interpreted differently by different cultures. (as cited in Borg & Al-Busaidi, 2012, p. 5)

By contrast, Little (1990) takes a different viewpoint and explains what autonomy is *not*. According to him:

- Autonomy is *not* a synonym for self-instruction; in other words, autonomy is *not* limited to learning without a teacher.
- In the classroom context, autonomy does *not* entail an abdication of responsibility on the part of the teacher; it is *not* a matter of letting the learners get on with the things as best as they can.
- On the other hand, autonomy is *not* something what teachers do to learners; that is, it is *not* another teaching method.
- Autonomy is *not* a single, easily described behavior.
- Autonomy is *not* a steady state achieved by the learners. (p. 7 – italics original)

2.1.3. Dimensions and Versions of Learner Autonomy

Since autonomy is a multi-faceted concept, there has been a number of dimensions and versions suggested for learner autonomy. For Benson (2001), any definition of autonomy should at least include three dimensions: (1) learning management, (2) cognitive processes and (3) learning content. Murray, Fujishima and Uzuka (2014), later add the fourth dimension to learner autonomy 'social learning space' which they define as "a venue where students come together in order to learn from each other in a non-formal setting" (p. 81). The idea behind this concept of 'space' is that rather than a formal setting such as a school environment, learners need to exercise their own autonomy as *agents* of their own learning in non-formal social learning spaces. Agents, as Van Lier (2010) describes, are 'the people deciding to, wanting to, insisting to, agreeing to, negotiating to, *act*" (cited from Murray et al., 2014, p. 96 – italics original). According to Murray et al., (2014), autonomy manifests itself in the possibility to act in accordance with one's agency. Therefore, learners' getting engaged in language learning/practicing activities in social learning spaces as agents of their own learning is a must if learner autonomy is to take place.

As for versions of learner autonomy, Smith (2003) argues that there is a weak and a strong version of learner autonomy – whereas the former assumes that learners lack capacity for autonomy and that they need some kind of training to become autonomous, the latter suggests that learners are already born autonomous and thus they have an inner capacity for autonomous learning. Another well-known version of autonomy is suggested by Benson (1997). He puts forward that there are three versions of autonomy: technical, psychological and political, which deal with learning-management, cognitive processes, and learning content, respectively. Although there have been many different dimensions and versions suggested afterwards, Benson (2007) states that "they have cut the cake in different ways" (p. 49) and gives examples of different dimensions and versions of autonomy suggested in literature, such as:

- Ribé's (2003) 'convergence', 'divergence-convergence' and 'convergence-divergence' positions of autonomy;
- O'Rourke and Schwienhorst's (2003) 'individual-cognitive', 'social-interactive' and 'exploratory-participatory' perspectives of autonomy;
- Oxford's (2003) 'technical', 'psychological', 'sociocultural', and 'political-critical' perspectives of autonomy;
- Holliday's (2003) 'native-speakerist', 'cultural-relativist' and 'social' approaches to autonomy (p. 24).

There is another classification of autonomy made by Littlewood (1999), which has also been quite influential. He divided learner autonomy into two levels, namely proactive and reactive autonomy, which are associated with western and eastern cultures, respectively. Learners with proactive autonomy tend to direct both the direction and the activity itself, whereas reactive autonomy only enables learners to direct the activity once the direction has been set. This distinction has been made taking into account the differences between cultural stereotypes and educational systems in western and eastern cultures. To give an example, whereas western countries might be more close to individualism, countries in the East might have more collectivist type of culture. In most basic terms, this might also be apparent in their educational systems – western learners being given more chance to take individual decisions concerning their education, whereas their eastern peers might be required to act within certain pre-taken collective educational decisions. In a nutshell, the important thing is, as Oxford (2003) explains, research on autonomy should combine as many perspectives as possible and "no single perspective should be considered antithetical to any other" (as cited in Benson, 2006, p. 24).

2.1.4. Dependence of Learner Autonomy on Teacher Autonomy

How learner autonomy will be promoted depends a great deal on how the construct is defined. To give an example, the weak version of autonomy (Smith, 2003) suggests that learners need to be trained to become autonomous. According to Holec (1981), the ability to take charge of one's own learning is "not inborn but must be acquired either by *natural* means or (as most often happens) by formal learning, i.e. in a systematic, deliberate way" (p. 3). In contrast, if you believe that your students are already autonomous (the strong version), you might have to understand whether it is proactive or a reactive one; or you might have to deal with technical, political, and psychological autonomy of the learners separately. In his book, Benson (2011) explains six ways to promote learner autonomy:

- *Resource-based approaches* include ways from which learners can benefit independently, such as self-access, tandem learning, self-instruction, out-of-class learning.
- *Technology-based approaches* mainly include Computer Assisted Language Learning (CALL) and using the Internet to serve any learning purpose.
- *Learner-based approaches* basically deal with training learners on how to be a good language learner with the help of learning strategies and techniques.
- *Classroom-based approaches* are about giving learners the opportunity to take part in planning and evaluating classroom learning.
- *Curriculum-based approaches* are related to giving students the opportunity to make major decisions about the content of the syllabus and the procedures of learning (p. 215)

It could be argued that these ways to promote learner autonomy are highly unlikely to actualize without the help, guidance, or facilitation of a teacher. Especially curriculum- and classroom-based approaches to promote learner autonomy are unlikely to take place without a teacher who is willing to share *control* with his/her students. Learner-based approaches are also unlikely to be adopted without a teacher guiding students about learning strategies and techniques. In his seminal paper, Little (1995) writes about the dependence of learner

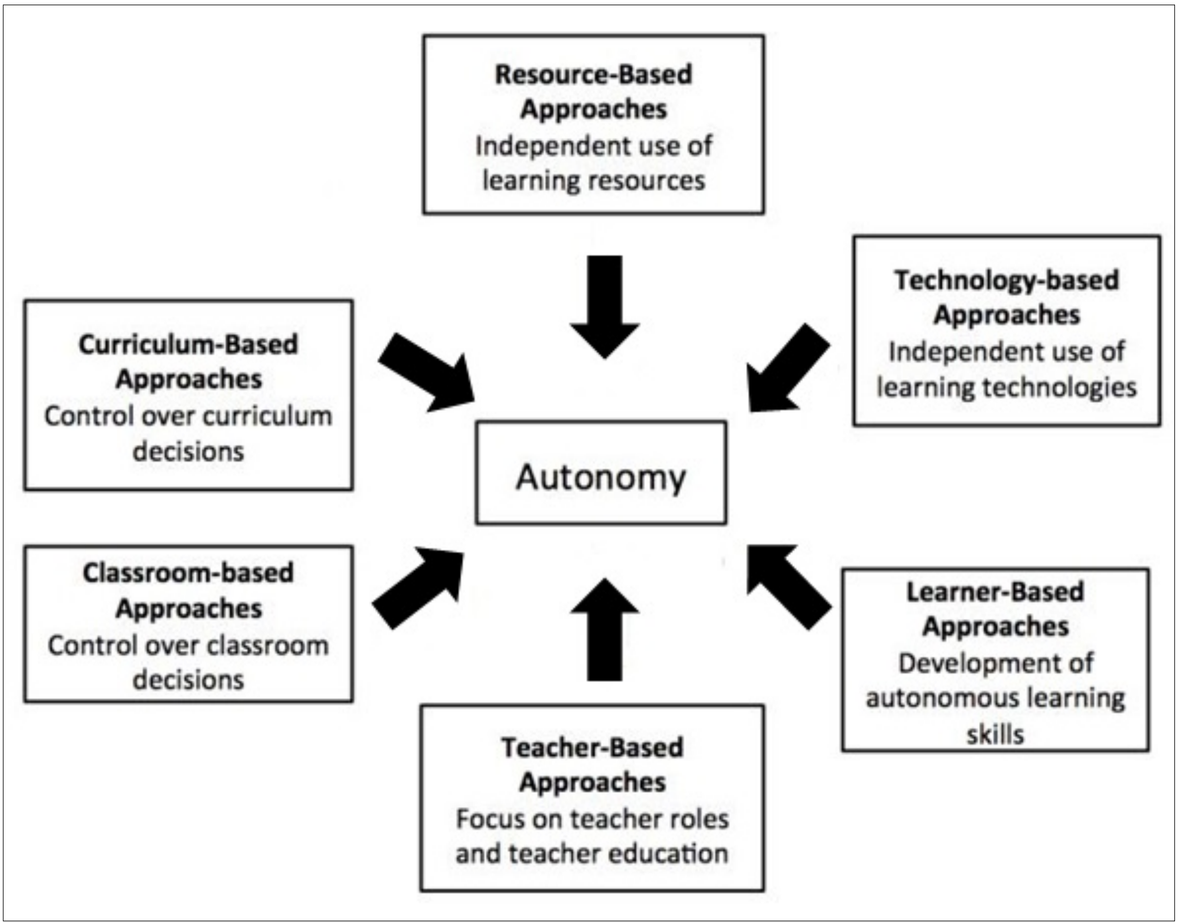

Figure 2.1. Six ways to promote learner autonomy (Benson, P. (2011). *Teaching and researching autonomy.* Second edition. London: Pearson Education)

autonomy on teacher autonomy and claims that the promotion of learner autonomy depends on the promotion of teacher autonomy. Similarly, Tort-Moloney (1997) states that learner autonomy is dependent on teacher autonomy. In agreement, Vieira (1999) comments on the interdependence between teacher and learner autonomy regarding teacher trainees and states that "if autonomy is not a goal of teacher education, we may well be wasting our time and effort in trying to make it a goal of learner education" (p. 221). Henderson (1996) asks: "If you, as a teacher, are not thoughtful about your professional work, how do you expect your students to be thoughtful about their learning?" (p. vii). Voller (1997) emphasizes that one of the most effective ways to help learners to become autonomous is for teachers to continue their professional development by becoming "researchers and learners" themselves (p. 112). Therefore, it can be argued that "teacher autonomy is a prerequisite for the support of learner autonomy" (McGrath, 2000, p. 109).

2.2. Teacher Autonomy

In the most general sense, teachers themselves need to be autonomous in two different but complementary ways if they wish to raise autonomous learners. First, teachers should make sure that they are free from various constraints in order to guide their students towards autonomy. Second, teachers *themselves* need to be autonomous if they want to lead their students towards autonomous learning. From these two different but related perspectives of teacher autonomy, the first one questions:

1. whether teachers are "free from control by others" (McGrath, 2000),
2. whether they have "the right to freedom from control" (Benson, 2000), or
3. whether they have "freedom from mastery exercised over oneself by others" (Pennycook, 1997).

This first domain of teacher autonomy simply questions whether teachers are free to manage and conduct the teaching/learning process in their own classrooms. Breen and Mann (1997) explain that "A common experience among many teachers in western democratic societies in recent times is the growing sense that the locus of control over their work is shifting away from themselves and their immediate institutions to centralized bureaucracies." (p. 140). Being compelled to obey such political or institutional decisions, unfortunately, brings along the fact that teachers might have to stick to a pre-determined curriculum, teaching materials, or assessment procedures, which would probably give them very little or no freedom in classroom to negotiate these with their students in accordance with both their needs and preferences for a more autonomous learning and teaching environment. Taking into account the fact that for learners being able to have a word in the choice for syllabus, teaching materials, or evaluation process, teachers' having no freedom to take these decisions with their students would undermine the progress towards exercising learner autonomy from the very beginning. Despite these boundaries and limitations, Lamb (2000) explains that "teachers need to understand the constraints upon their practice but, rather than feeling disempowered, they need to empower themselves by finding the spaces and opportunities to maneuver." (p. 127). Vieira (2003) argues that a conception of teaching as a 'moral and political activity' presupposes that "teachers are both willing and able to exert some control over educational settings by mediating between constraints and ideals" (p. 222). Similarly, McGrath (2000) asserts that what matters is how a teacher *responds* to these constraints. As he explains, accepting these constraints and acting accordingly in class is one option; whereas the alternative is:

> […] not to carve an independent swathe through constraints, rejecting out of hand what may have been put in place for good reason, but to exercise independent judgement in order to establish a principled strategy which may involve compromise and negotiation as well as determined autonomous action (p.102).

It can be argued that for a teacher to achieve such determination is only through professional development. In other words, granting teachers autonomy in the classroom is quite a responsibility which would be difficult for them to handle if they do not know (or learn) how to cope with it. In her comprehensive review of studies on teacher autonomy, Usma (2007) concludes that:

> It is clear that more decision making does not necessarily imply a higher sense of teacher autonomy, as new responsibilities or wider scope for action have to be complemented with professional competence and support that may drive teachers' actions. In this process, educational administrators and policy makers need to acknowledge the complex process of teacher learning and provide the necessary conditions for teachers to succeed in their new responsibilities for the professional development experiences or empowering endeavors to positively affect teachers' feelings and performance. Issues such as sense of competence, job satisfaction, working conditions and teachers' attitudes towards teaching and learning have to be carefully considered when empowering teachers, and enhancing their sense of autonomy (p. 13).

Smith (2003) clarifies that although professional development could be considered one form of professional action, action and development are not necessarily the same thing. That is, "we may act (e.g. teach) in a self-directed manner, but do not necessarily learn from the experience" (p. 4). Therefore, Smith (2003) comes up with a different dimension of teacher autonomy as shown in Figure 2.2. Smith (2000) explains that teachers can be regarded as learners of not only the language they teach or the native language of the students they teach, but also as learners of their own profession. Therefore, he uses the term "teacher-larner autonomy" in two different senses: (E) capacity for self-directed professional development and (F) freedom from control over professional development (Smith, 2003).

In relation to professional action:	
A. Self-directed professional action	(= 'Self-directed teaching')
B. Capacity for self-directed professional action	(= 'Teacher autonomy (I)')
C. Freedom from control over professional action	(= 'Teacher autonomy (II)')
In relation to professional development:	
D. Self-directed professional development	(= 'Self-directed teacher-learning')
E. Capacity for self-directed professional development	(= 'Teacher-learner autonomy (I)')
F. Freedom from control over professional development	(= 'Teacher-learner autonomy (II)')

Figure 2.2. Dimensions of teacher autonomy (Smith, R. C. (2003). Teacher education for teacher-learner autonomy. In J. Gollin, G. Ferguson & H. Trappes-Lomax (Eds), *Symposium for Language Teacher Educators: Papers from the IALS Symposia* (CD-ROM). Edinburgh: IALS, University of Edinburgh. Retrieved from www.warwick.ac.uk/~elsdr/Teacher_autonomy.pdf)

There is a mutual agreement in literature that teachers are still learners of their profession. Little (1995), for example, asserts that in a pedagogical process "teachers as well as students can learn", and "teachers cannot be expected to foster the growth of autonomy in their learners if they do not themselves know what it is to be an autonomous learner" (p.180). Aoki (2002) makes an analogy between learner autonomy and teacher autonomy suggesting that "If learner autonomy is the capacity, freedom, and/or responsibility to make choices concerning one's own learning… teacher autonomy, by analogy, can be defined as the capacity, freedom, and/or responsibility to make choices concerning one's own teaching" (cited from Benson, 2011, p. 191). Following the publication of Little's (1995) seminal article, Benson (2011) agrees that teacher education has tended to be viewed more as a professional capacity, somewhat parallel to the idea of learner autonomy (p. 262). Benson and Huang (2008) also acknowledge that one dimension of teacher autonomy involves the teacher's own autonomy as a learner; that is, autonomous teachers control the process of learning how to teach, which may include ongoing learning of their subject matter (p. 429).

2.2.1. Teachers' Professional Autonomy: Theoretical Framework

"As teacher trainees, after all, we are students."
(Smith, 2000, p. 90)

Among the plethora of definitions of teacher autonomy, teacher autonomy in this dissertation is named as "*teachers' professional autonomy*" as a sub-dimension of teacher autonomy, and it derives its definition from the perspective of McGrath's (2000) 'self-directed professional action' and Smith's (2003) 'teacher-learner autonomy'. For McGrath (2000), self-directed professional action is related to concepts such as teacher as researcher, action research, reflective practitioner and teacher development. According to McGrath (2000), some teachers, like some learners, seem to develop the capacity for self-directing their professional learning without any intervention, whereas others might develop with the help of (compulsory) in-service training programs. Here it can be understood that some teachers might already be *willing* enough develop themselves without being forced by external factors, such as in-service trainings or action research programs, whereas some teachers might need to be pushed to *feel responsible* to carry out the requirements of such programs asked by the institutions they work in.

Smith (2000, 2003), on the other hand, defines his own term, teacher-learner autonomy, as the 'ability to develop appropriate skills, knowledge and attitudes for oneself as a teacher, in cooperation with others'. Here the stress is laid on the fact that teachers are (or ideally they should be) still learners of their own profession. In other words, if learner autonomy means learners' being able to take responsibility of their own learning process, teacher-learner autonomy – by the same token – means teachers' being able to take control of their learning as a teacher. That is, the concept of teacher-learner autonomy takes teachers still as learners of their profession: teaching. Smith (2003) adds his definition of teacher-learner autonomy two dimensions: capacity for self-directed professional development and freedom from control over professional development. Smith (2003) explains that in terms of self-directed behavior, some emphasize learners' *capacity* (e.g. Little, 1991), whereas others (e.g. Dickinson 1992) emphasize *willingness*. He acknowledges these two components under the term "*capacity*" to engage in self-directed behavior. Secondly, as Benson's (2000) political view of autonomy includes the right to freedom from control (or an ability to exercise this right) as well as actual freedom from control, Smith (2003) puts this factor as a sub-dimension within "*freedom*" from control over professional development. Here it can be understood that for teachers to self-direct their professional development, Smith (2000, 2003) associates teacher-learner autonomy with capacity, ability and freedom – by also emphasizing *collaboration*. McGrath (2000) also associates capacity and freedom with teachers' self-directing their professional action.

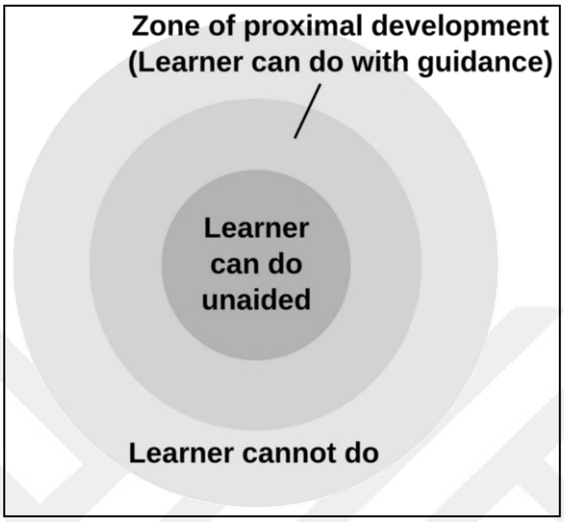

Figure 2.3. Zone of Proximal Development (Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

When defining teachers' professional autonomy as a term, we also put a large emphasis on collaboration since we take sociocultural theory as our theoretical framework. According to Vygotsky (1978), learning is a social process where learners construct their own meaning and theories by working with more knowledgeable peers. According to Vygotky (1978), Zone of Proximal Development (ZPD) is "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers" (p. 86). Zone of Proximal Development is a term which, in essence, refers to the zone which is combined of what learners already know and what they are taught; and scaffolding refers to the process of how learners learn as they start to make sense of new knowledge and add it onto previously learnt ones, thus expanding – scaffolding – their cycle of learning (Figure 2.3).

Interpreting the sociocultural learning theory for teachers' professional autonomy, ZPD might refer to any kind of environment in which a teacher can find a learning opportunity about his/her profession: *teaching*. This can be a seminar on using technology in class, or a discussion about the previous lesson with a colleague, or it can be a casual talk with students about their recent progress in learning. Therefore, for teachers, the "more knowledgeable peers" in ZPD might be teachers' colleagues, supervisors or mentors (if they have any at the institution they work in). In addition, we also believe that – although not more knowledgeable in terms of the profession – students can help teachers to 'scaffold' by showing them different viewpoints that teachers' might not have realized or might not consciously be aware of. To give an example, students of the 21st century are usually more familiar with technological devices and applications than their teachers, so if teachers are disposed to learn from their students in a collaborative manner, this knowledge of students might be of assistance for their teachers as regards the teaching and learning processes in the classroom, which would turn any class hour into a learning opportunity for teachers. Although it is also possible for teachers to acquire these kind of technological knowledge or skills in a seminar or a similar professional development event, the point here is that if teachers intend to develop themselves professionally, not only their colleagues or mentors but also their students can help them to scaffold in the pursuit of becoming a better teacher. In short, we interpret *any* learning environment for teachers as their Zone of Proximal Development. Witty and Wisby (2006) agree that in the development of appropriate learning environments for teachers, the active role of other adults such as parents and teaching assistants – and students themselves – is equally important. As Little (1991) explains: "our capacity for self-instruction probably develops out of our experience of learning in interaction with others: in order to teach ourselves, we must create an internal substitute for the interaction of home or classroom" (p. 5). In agreement, Mohr et al., (2004) indicate that autonomous teacher researchers can not only seek out knowledge from professional literature, books, journals, etc., but they can also get help from the experiences and knowledge of others including their peers. Goodwyn (1997) emphasizes the importance of collaboration in terms of career development and states that even for experienced teachers, the collaboration with novice teachers and even with students can be an excellent stimulus. In short, since teachers' professional autonomy takes teachers as learners of their own profession, we believe that sociocultural theory of learning provides a useful means for teachers by expanding their current knowledge about teaching and learning process through collaboration and cooperation with their colleagues, mentors, supervisors and even with their students.

2.2.2. Teachers' Professional Autonomy: Operationalization of Terms

> Think of a work situation in which two different people work at the same job, with a manager who treats them exactly the same. Their experiences could be, nonetheless, quite different. One employee could view it as more autonomy supportive while the other views it as more controlling, because these two employees came to the situation with different expectations and sensitivities. The first person might see the setting as one that supports choice, so he or she would use relevant information from the situation in making choices, whereas the other person might react to comments as if they were critical and to requests as if they were demands. The former would act more autonomously while the latter would respond either compliantly or defiantly. (Deci, 1995, p. 11)

This example is important in the sense that our definition of teachers' professional autonomy in this dissertation can be considered a *personality trait* which determines teachers' attitudes towards their self-development as a teacher. In this dissertation, we define teachers' professional autonomy from the perspective of professional development and thus define a professionally autonomous teacher as the one *"who has the capability, motives, and time to develop himself/herself professionally in collaboration with his/her students and colleagues."* Since autonomy is a matter of 'level' (Benson, 2006) or 'degree' (Little, 1990; Nunan, 1997; Sinclair, 2000), and since we define teachers' professional autonomy as a personality trait, it can be argued that teachers' having higher levels of professional autonomy would ensure more development in their careers as teachers.

Despite the fact that teacher's professional autonomy is usually associated with capacity (Lamb & Simpson, 2003; Stenhouse, 1975) or ability (Smith, 2000), in our definition, we use the term 'capability' to refer to teachers' both capacity and ability to take responsibility for their own learning. This is because we regard capacity and ability as two terms that are intertwined. As we believe, capability refers to teachers' capacity and abilities to develop themselves as professionally autonomous individuals. Besides, we believe that capability also includes resources, since it would be unreasonable to expect teachers to be able to make use of certain resources if they do not have access to any. In their review of the literature on teacher retention, Johnson, Berg, and Donaldson (2005) state that facilities and supplies of a school ranging from textbooks to a library, from science equipment to reliable photocopy machines inevitably limits the kind of teaching and learning that can occur. They further state that "in the process of contending with disrepair and shortage, teachers may become demoralized because they cannot do their best work, must use their own money to buy supplies, and feel disrespected as professionals" (p. 50-51). In the 21st century, if teachers still have trouble having access to the most basic and most needed resources for teaching and learning, such as printed materials or a certain kind of technological equipment, it would be absurd to expect them to continue their professional development – even if they have the capability to do so.

Having only capability (including resources) to develop professionally does not essentially guarantee that a person will act accordingly and learn from experience. As Smith (2003) clearly explains, although professional development could be considered one form of professional action, action and development are not necessarily the same thing. To be more precise, we may act (e.g. teach) in a self-directed manner, but do not necessarily learn from the experience (p. 4). To give an example, teachers might attend professional development events such as seminars or conferences, but they might not learn any information there – just as sitting in the classroom does not result in students' learning the subject matter. Therefore, we believe that teachers' professional autonomy requires the feeling of *willingness* as an internal drive and/or the sense of *responsibility* as an external drive. In most definitions, teacher autonomy includes willingness as a component (Dam, 1995; Vieira, 2001). Sinclair (2009) agrees that learners (i.e. teacher-learners) might have a capacity for learning, but they might not always feel like taking responsibility or they might not always be willing to take control of their learning. According to Sinclair (2009) "learner autonomy is a construct of capacity which is operationalized when willingness is present" (p. 185). Harrison, Lawson, and Wortley (2005) also associate teacher autonomy with responsibility and they state that professional learning and development are both an entitlement and a responsibility for all teachers. Explaining the characteristics of a post-method teacher, Kumaravadivelu (2001) states that "teachers can become autonomous only to the extent they are *willing* and *able* to embark on a continual process of self-development" (italics added, p. 549). In her study Whatley (1998), for example, found that resilient, gifted teachers continually seek ways to change themselves, to change the educational system, and to change the lives of their individual students. Similarly, the participant teachers in Yonezawa, Jones and Singer's (2011) study voluntarily joined a National Writing Project, because they "sought professional growth" (p. 921) and they "wanted to do a better job of teaching writing" (p. 922). These studies show that this inner drive that makes these teacher willing to develop themselves professionally is one of the key components of teachers' professional autonomy. Secondly, as Stenhouse (1975) made explicit, the professional teacher has the responsibility for developing professional practice through ongoing learning (cited from Lamb & Simpson, 2003, p. 56). Yet, we find it important to distinguish between willingness (as an internal drive) and responsibility (as an external drive). As McGrath (2000) explains, whereas some teachers, like some learners, seem to develop the capacity for self-directing their professional learning without any intervention, others might develop it with the help of (compulsory) in-service training programs. Breen and Mann (1997) agree that a "desire to learn" is a quality that autonomous learners have; and this desire, as they explain, can be intrinsic, 'I want to learn this for its own sake', or instrumental 'I want to learn this because it will help me achieve X' (p. 134). Therefore, since our definition for teachers' professional autonomy draws on the concept of "teachers as learners", our definition of professional autonomy also includes internal and external motives as a driving power for teachers' professional self-development. In other words, a teacher might be already willing to develop in their profession for its own sake, whereas another teacher might need external drives (such as compulsory training, or financial benefits) to self-direct his/her professional self-development. At this point it is important to note that *as long as a teacher has motives* for self-development, the kind of motive they have (e.g., internal or external) carries little importance. Either internal, external, or both, what matters is that a teacher *should* have motives in order to be a professionally autonomous teacher.

Having said that, for teachers to have capability and motives to develop themselves might not necessarily ensure their professional autonomy. In order to develop in their profession, as Smith (2003) and Benson (2011) agree, they need *freedom*. This freedom, as we understand, is mostly related to time, finance and resources. In other words, when teachers do not have enough time because of their workload, when they cannot allocate money to attend professional development occasions such as seminars or conferences, or when they do not have access to technology, printed materials or at least a number of colleagues, supervisors or mentors to consult to, it is quite unlikely for them to keep continuing to learn about their profession. Given that heavy workload is one of the reasons why teachers leave the profession (McCann & Johannessen, 2004), expecting them to continue learning about their profession while dealing with unmanageable workload at the same time would be unreasonable. In one-year period with ten teachers, Peters (2004) carried out the "The Innovative Links Project" which was an action research-based professional development project initiated in Australia as a National Professional Development Program. One of her findings was that time pressure and workload was one of the reasons which made teachers' job difficult in terms of carrying out their action research studies. Peters (2004) explains that lack of available time and busy schedules prevented all participating teachers from fully engaging in some project activities. Usma (2007) also concluded that salary is one of the external constraints that affect teachers' participation in teachers' research. These research studies clearly point out the importance of having enough time, finance, and resources for teachers' professional autonomy.

Lastly, since the definition of teachers' professional autonomy draws on the sociocultural learning theory by Vygosky (1978), the social component is of utmost importance if learning is to take place. Lamb and Simpson (2003), for example, expand on Smith's (2000) definition of teacher-learner autonomy, and they suggest that the format of "teacher as learner" can vary: whole school professional development seminars, structured courses in higher education, individual or collaborative learning through systematic reflection on teaching and learning, or peer observation. Here it can be seen that there is an indispensable share of social aspect in teachers' professional autonomy. Supporting the role of ZPD in learning, Goodwyn (1997) points out that teachers need to work closely with each other and with "other colleagues who can stimulate and sustain professional development" (p. 116). In his review, Usma (2007) highlights that collaborative endeavors among teachers and administrators may hinder or enhance teachers' control and may have a real effect on educational practices in schools. A survey conducted by General Teaching Council for England with more than 4000 teachers manifests that 'a substantial majority of teachers gain their inspiration for their most effective lessons from talking with colleagues' with almost all saying 'they have engaged in professional knowledge-sharing conversations with their colleagues' (GTCE, 2004, p. 3 – cited in Dymoke & Harrison, 2006, p. 73).

Despite its importance, the reviewed literature reveals very little research carried on teachers' professional autonomy which complies with its definition in this dissertation. In his review, Usma (2007) selected and reviewed 30 empirical reports on teacher autonomy reported during the last three decades and came up with the conclusion that the studies which devote a lot of attention to the construction and validation of a research tool for its measurement conceptualize teacher autonomy as 'a personal sense of freedom to execute professional action'. As an exception, Smith and Erdoğan (2008) report on a qualitative interview-based study carried out with three student-teachers in a professional practice course. The interview results were presented so as to confirm the 'construct validity' (p. 97) of teacher-learner autonomy (Smith, 2000). The results indicated that the participating student teachers mentioned terms, namely "self-awareness", "teacher as a researcher", and "develop as a teacher by self-directing one's own learning" which are clearly related to teacher-learner autonomy. According to Smith and Erdoğan (2008) their research confirms that 'teacher-learner autonomy' is valid and potentially valuable as a general theoretical notion, and the statements of just these three participants place the 'flesh' on it (p. 98). Scribner, Hager and Warne (2002) studied teacher learning by carrying out a qualitative case study in two successful urban high schools in the USA. Their primary aim was to investigate micro-political nature of professional communities, specifically focusing on how teachers and principals in these schools defined, negotiated, and controlled teacher learning. To this aim, they interviewed 30 teachers and 2 principles, and they also collected data by observing professional development days, faculty meetings, teacher team meetings, etc. The results suggested that the role of the school principal, as an educational leader, is of utmost importance when it comes to teacher learning. The principal who involved teachers into decision-making process about teaching and learning and about the vision and the mission of the school gained teachers' trust and thus created a successful professional community, where teachers positively benefitted from professional development activities carried at the school.

2.2.3. Teachers' Professional Autonomy vs. Professional Development

In the literature, teachers' professional autonomy is often used to refer to relatively similar ideas of "teacher professional development". However, teachers' professional autonomy, as we define it, is quite different from teachers' professional development (PD). According to Schibeci and Hickey (2003), PD refers to "involvement by teachers in a variety of activities related to their diverse roles: as curriculum designers and implementers, as administrators and assessors, and as the connection between schools and community" (p. 120). Teachers' professional autonomy, on the other hand, refers to teachers' capability, motives, and time which *gets* them involved in PD activities. Therefore, teachers might be professionally autonomous, but they might choose not to take part in a particular PD event. The opposite case, however, is different: teachers might participate in a PD event at the institution they work in, but if they are not professionally autonomous, they will not benefit from it. As Smith (2003) questions:

> Do we have an intrinsic motivation to continually learn from and develop our teacher education practices in the way we recommend to students or are we ourselves the victims of various obligations to 'jump through hoops' (fulfil a requisite number of peer observations, produce a teaching portfolio designed to satisfy external criteria for promotion, and so on)? (p. 7)

What we argue is that teachers' professional autonomy is a prerequisite if teachers are expected to benefit from PD practices. In other words, if teachers are not professionally autonomous, exposing teachers to any PD program would, as we believe, prove to be ineffective – since they would not have enough capability, motives, or time to benefit enough from those PD activities. There are a number of studies to prove the importance of teachers' professional autonomy for PD activities. In their study, for instance, Schibeci and Hickey (2003) worked with 28 science teachers, and they found that teachers' views about PD ranged from those who will only attend when it is compulsory or convenient to those who willingly attend hundreds of hours of science PD and are involved in frequent after-hours, science-related activities. Similarly, Van Den Bergh, Ros, and Beijaard (2015) found in their study that teachers benefitted from PD programs because they had 'a willingness to learn' (p. 148). Smith (2003) agrees that we do not 'necessarily' learn from the experience. Teachers might *experience* new practices as a part of PD training, but experiencing only does not guarantee that teachers will *act* by making use of their experiences in their teaching. Van den Bergh, et al., (2015) agree that research on teachers' professional development generally yields disappointing results. In some studies, professional development activities have been found to be ineffective or to be perceived as irrelevant by teachers (Lieberman & Pointer Mace, 2008; Opfer & Pedder, 2011). Similar results were found by Gore and Zeichner (1991). Working with 18 preservice students enrolled at the University of Wisconsin-Madison as participants, the authors hypothesized that with the help of action research projects, the student-teachers would recognize the importance of reflective practice and develop an understanding of the critical theorist viewpoint – the subject matter of the projects. The results of the study, however, caused disappointment for the authors since the pre-service teachers showed very little understanding of the importance of the reflective practice, and they showed almost no concern about the critical issues related to teaching. Many studies, as reviewed by Wideen, Mayer-Smith, and Moon, (1998) show that teachers hardly implement the theories they learn in teacher education in their own teaching practices. These examples show that, in order to develop themselves professionally, teachers need to be professionally autonomous. In Patterson, Collins and Abbott's (2004) study, resilient teachers – i.e. teachers who stay in the profession despite difficulties they face – are found to "place a high premium on professional development and find ways to get it" (p. 5). It can be argued that this is the fine line between teachers' professional autonomy and PD because it is teachers' professional autonomy that makes them *place a high premium* on PD. Goodwyn (1997) states that:

> If student teachers, beginning teachers and less accomplished colleagues are really going to be a part of a continuum of professional development, then it is essential that those further along that continuum demonstrate their wish to be still moving. This is just as true of teacher educators, who have an equal responsibility to show their open-mindedness and eagerness to learn. Demonstrating such a dedication to learning and self-development may take a number of forms (p. 129)

Here, the key words such as *wish, responsibility, open-mindedness, eagerness*, and *dedication* clearly show the importance of teachers' professional autonomy if they are expected to move further on the continuum of professional development. Similarly, Raya (2007) states that when people are coerced, their performance is reduced and they frequently react with resistance, resentment, and a loss of energy. On the contrary, people whose actions are self-motivated tend to be high-functioning and display greater cognitive outcomes, well-being, and persistence. This clearly shows that if teachers are not professionally autonomous, they might not benefit enough from PD activities – or they might even avoid participating in them.

Professional development is used as a general term that embraces all kinds of short-term activities such as events, seminars, workshops, or long-term activities such as in-service trainings or action research programs – all of which aim to provide teachers with necessary skills and information to better their teaching in one way or another. However, as discussed earlier, the fact that teachers are exposed to a certain kind of information does not necessarily guarantee that they will make use of that information to better their teaching. As early as 1933, John Dewey stated that acquiring information is simply a process of memory. According to him, what turns information into knowledge and knowledge into wisdom is "reflection".

2.2.4. Teachers' Professional Autonomy and Reflection

> *"As a language teacher, have you ever finished all of your teaching for the day only to find your mind racing with thoughts about a lesson recently completed? [...] During such moments I find myself responding with a full range of emotion that includes not only excitement, joy, inspiration, and reassurance but also more troubling moments of boredom, annoyance, and even disappointment in myself."*
> *(Murphy, 2001, p. 499)*

Teacher autonomy is a term which is related to reflection in many ways. Lamb (2008), for example, conceptualizes teacher autonomy by referring to the extent to which teachers have the capacity to improve their own teaching through their own efforts through reflective or research-oriented approaches. Thavenius (1999) defines autonomous teacher as the one who "reflects on her teacher role and who can change it, who can help her learners become autonomous, and who is independent enough to let her learners become independent" (p. 160). Murphy (2001) states that reflective teaching aims at: (1) developing one's understanding of the teaching-learning process; (2) expanding one's repertoire of strategic options as a language teacher; and (3) increasing the quality of learning opportunities one is able to provide in language classrooms. Castle (2006) states that "Just as an oyster creates a beautiful pearl out of irritation, pedagogical researchers begin their quest when they perceive that something is wrong" (p. 1097). Given that one of the main functions of reflective practice is solving problems, it can be argued that what makes teachers "perceive something is wrong" is their professional autonomy. As Castle (2006) further explains, "teachers who do not ask questions about their teaching do not grow professionally through the struggle to find out what is going on and how to improve the situation" (p. 1098). Explaining the three pillars of post-method pedagogy, namely pedagogy of particularity, practicality, and possibility, Kumaravadivelu (2001) asks the following questions:

> How do post-method teachers pursue professional development involving the triple pedagogic parameters of particularity, practicality, and possibility? How do they theorize from practice and practice what they theorize? One possible answer is that they do so through teacher research. Teacher research is initiated and implemented by practicing teachers motivated mainly by their own desire to self-explore and self-improve (p. 550).

This means that professional autonomy is a must for reflective practice, and in turn, reflective practice fosters the growth of teachers' professional autonomy. Being professionally autonomous makes it necessary teachers to contemplate the *status quo* by being aware of their current teaching practices, their weaknesses and strengths as a teacher, the things they would like to change or improve, or the things they need to develop in their teaching. As Sinclair (2009) puts it, no development can be undertaken without an extensive needs analysis. In this context, it can be argued that "reflection" is the needs analysis for teachers' own profession. In literature, teachers' professional autonomy as a prerequisite for professional development is related to a great extent with reflection and reflective practice. As Kelchterman (1999) states:

> Teachers evolve throughout their careers: in their actions in the class with pupils; in their relationship with principals, colleagues, and parents; in their "thinking" about themselves, their teaching, and their role as teachers. We call this "professional development": a lifelong learning and developmental process resulting from the interactions between teachers and their professional environment (p. 183)

Vieira (1996, 1997) agrees that it is with reflective practice that teachers can achieve professional and personal development. In one of her in-service training projects, Vieira (1996) concludes that teachers' reflection and action became the main source for their professional and personal development towards a more reflective practice. Vieira (1997) further explains that teaching becomes a sort of research and research becomes a way of teaching. Teachers, as learners, become more empowered to take charge of their course of action (cited in McGrath, 2000, p. 104). Lamb (2000), for instance, argues that the development of reflective practice encourages teacher responsibility for professional development and offers a means of carrying this through. Voller (1997) states that reflective practice is one of the ways in which teachers can help their learners become autonomous:

> There is one further way in which the teacher can help to ensure that an autonomous approach to language learning is effective: teachers need also to be researchers and learners […] The ways in which teachers can research themselves include personal reflection, for instance by means of diaries, self-reporting, by means of inventories and checklists and the recording and systematic analysis of learning events. Self-monitoring is one way for teachers to continue their professional development, to reflect critically on their practices and to narrow the gap between their imagined view of their own teaching and reality. (p. 112)

Lamb (2008) explains this conceptualization of teacher autonomy as the extent to which teachers have the capacity to improve their own teaching through their own efforts through reflective or research-oriented approaches. Smith (2003) agrees that "in order to engage students in autonomous and effective reflection on their own learning, teachers need to constantly reflect on their own role in the classroom, monitoring the extent to which they constrain or scaffold students' thinking and behavior" (p. 43). Tort-Moloney (1997), for example, defines the autonomous teacher as the one "who is aware of why, when, where and how pedagogical skills can be acquired in the self-conscious awareness of teaching practice itself' (p. 51). Asking these questions clearly requires teachers to reflect on their teaching practices. According to Richards (1998), "Every teacher has a professional responsibility to reflect and evaluate about their practices. As a result of this approach, reflective teachers will be able to identify how to improve their professional activity in order to improve the quality of pupils' learning" (cited in Ghazalbash & Afghari, 2015, p. 47). In short, it can be argued that reflection lies at the heart of teachers' professional autonomy.

2.3. Reflection: Theoretical Framework

Although reflection is defined in many ways, Dewey is probably the one who defined the term as early as the 1930s. Reflection, according to Dewey (1933), is an action based on "the active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it'' (p. 9). Reflective action is thus contrasted with impulsive and routine actions. Impulsive action is based on trial and error, drawing on biological/instinctive principles, while routine action is ‘‘based largely on authority and tradition – undertaken in a passive, largely unthinking way’’ (Griffiths, 2000, p. 540). Korthagen and Vasalos (2010) explain the danger of impulsive/routine actions when compared to reflection as the following:

> Sometimes reflection seems to be used by practitioners as merely a technical tool generating quick, but often ineffective, solutions to problems that have been only superficially defined. If we look closely at how many practitioners reflect, we see that if there is any time for reflection at all, work pressure often leads to a focus on finding a “quick fix” – a rapid solution for a practical problem – rather than shedding light on the underlying issues determining the situation at hand. While this may be an effective short-term measure in a hectic situation, there is a danger that one’s professional development may eventually stagnate. As Schön (1987) argues, practitioners may unconsciously develop standard solutions fitting in with their personal perception of situations, so that the accompanying strategies become frozen. The practitioner will then no longer be in the habit of examining these strategies or the analyses once made of the problems they face. This means that more structured reflection is important in promoting deep learning and sound professional behavior (p. 529).

It follows this that reflection does not (or should not) only mean for teachers to deal with everyday problems taking on-spot decisions without looking deeper into the problem and without trying to find permanent solutions to those problems with the help of professional development, which could be in the form of studying the literature, seeking help from colleagues or mentors, etc. Kelchtermans and Strittmatter (1999) agree that lifelong professional learning is of utmost importance for teachers not because the objective is to attain ideals of perfection but because to make them acquire an attitude of optimal problem solving. Given that teaching, as a profession, is comprised of solving numerous problems in-and-out of classroom on an everyday basis, teachers’ professional autonomy and their reflective practices become inseparable. This becomes especially important with beginning teachers who start teaching with great expectations but then have to face numerous challenges to deal with. How these novice teachers’ ideas are shaped when dealing with these challenges determines what kind of teacher they will become in the future. For instance, in her study, Johnston (1994) describes the story of a student teacher who entered student teaching with student-centered beliefs but changed and became very control oriented. Johnston (1994) suggests that programs should focus on developing self-awareness in a collaborative situation that will allow student teachers to negotiate and reconstruct their experience. Huisman, Singer and Catapno (2010) agree that “problem-solving through reflection is crucial to building resiliency and leading to success. As novice teachers persist in trying new strategies and are successful, they feel positive about their teaching” (p. 490). Here it is understood that experience only is inadequate for teachers’ professional growth. Richards and Nunan (1990) explain that “experience alone is insufficient for professional growth, but that experience coupled with reflection can be a powerful impetus for teacher development" (p. 8). Therefore, it can be argued that reflective practice is the primary factor that would lead both novice and experienced teachers to self-awareness, which would result in a better understanding of their selves as teachers.

In his comprehensive review, Usma (2007) finds out that critical reflection is one of the factors that enhances teachers' awareness about their learning and improvement of practice. Similarly, Lougran (2002) explains that reflection is a way of helping practitioners better understand what they know and do as they develop their knowledge of practice through reconsidering what they learn in practice. In his study with 12 'gifted' female teacher educators, Whatley (1998), for instance, finds that in many instances, through retrospective reflection, those teachers were able to transform their past traumas into opportunities for growth. Whatley (1998) explains that "Envisioning inhospitable conditions as opportunities for growth and change is one way that these women [i.e. gifted educators] have responded creatively to professional adversity" (p. 118). In a similar vein, Colton and Sparks-Langer (1993) support the relationship between teachers' professional autonomy and reflective practice by explaining that in comparison to their colleagues, reflective teachers are more motivated to grow, as "the process of reflection feeds a constructive spiral of professional development and competence," (cited in Pollard & Triggs, 1997, p. 4). It should also be kept in mind that, as Flores (2001) puts forward, reflective teaching is not essentially aimed at addressing a particular question or problem, but rather at perceiving and refining practices on an ongoing basis. This ongoing basis of refining practices is the cachet that connects teachers' professional autonomy to reflective practice. Despite the fact that it is commonly associated with 'problem-solving', psychological research has shown that it may be more effective if people reflect on aspects that have a positive meaning to them (Hoekstra & Korthagen, 2011). This suggests that reflection on one's successes and finding explanations for positive experiences might be much more beneficial to professional learning. This notion also finds support from a fairly recent approach within clinical psychology, called *positive psychology*. The founders of positive psychology, Seligman and Csikszentmihalyi (2000), state that "treatment is not just fixing what is broken; it is nurturing what is best" (as cited in Meijer, Korthagen & Vasalos, 2009, p. 299). It follows this that reflective practice should not necessarily be about solving problems; rather it also should be about teachers' professional growth by encouraging them focus not only their weaknesses but also their strengths so that they can also excel in their best teaching practices as well as improving the areas which they are relatively weak at. In their longitudinal case study, Hoekstra and Korthagen (2011), for example, found out that supervising teachers to practice reflectively helps them learn how to motivate themselves to continue their professional development. As the authors explain, being encouraged to focus on their ideals instead of problems, teachers can discover that by imagining their ideal, they can motivate themselves to keep learning. In the present study, the concept of teachers' professional autonomy and reflection are therefore related to teachers' professional learning in this aspect. As Smith (2003) also clearly explains:

> The importance of reflective teaching (reflection on and learning from the experience of teaching) has been recognized for some time now, and corresponds well with an overall focus within teacher education on developing a 'capacity for self-directed professional action' (our 'teacher autonomy'). What has not been discussed so much is the importance of reflective teacher-learning, in other words reflection by teachers on when, where, how and from what sources they (should) learn, including but not confined to any learning they can achieve via teaching. In order for teachers to gain better abilities and a greater willingness to learn for themselves in developing 'an appropriate expertise of their own', this kind of reflection seems to be essential (p. 8)

Since our definition of teacher's professional autonomy shares similar characteristics with Smith's (2003) definition of teacher-learner autonomy, the importance of reflection and reflective practice also proves to be of utmost importance for teachers' professional autonomy. Words of a fourth grade teacher from Castle's (2006) study clearly sum up the relationship between teachers' professional autonomy and reflective practice:

> Teacher research begins with the courage of an initial question. Researching questions and getting results leads to deeper understanding, continued research, and the knowledge base to support your teaching which can be shared with others. Teacher research then becomes the tool of the autonomous teacher. (p. 1102)

Here, it can be clearly understood that professional autonomy ignites the wick of reflective practice by making teachers question their practices; and this questioning, in turn, boosts their professional development.

2.3.1. Defining Reflection and Reflective Practice

It can be argued that definition of reflection resembles a continuum. At one end, as Loughran (2002) explains, reflection simply means thinking about something, whereas at the other end, it is a well-defined and crafted practice that carries very specific meaning and associated action. The essence of reflection, as Calderhead and Gates (1993) argue, is that it enables professionals "to analyze, discuss, evaluate and change their own practice" (p. 2). Similarly, Akbari et al., (2010) state that a reflective teacher should be the one "who critically examines his/her practices, comes up with some ideas as how to improve his/her performance to enhance students' learning, and puts those ideas into practice" (p. 212). According to Parsons and Stephenson (2005), "reflective practice involves the need for individuals to be aware of, and able to monitor, their own thinking, understanding and knowledge about teaching and to be aware of the different kinds of knowledge upon which they can draw to help develop their practice" (as cited in Watts & Lawson, 2009, p. 610). As it is clear in these definitions, reflection is usually associated with *practice*. In basic terms, it can be argued that reflection is a cycle of practicing, reflecting, and re-practicing (Figure 2.4). That is, as teachers do their practices, they face certain problems. Sometimes these problems might need immediate action, or sometimes these problems need to be dealt with after the event which cause the problem take place. To give an example, when there is an unrest in the classroom, a teacher has to deal with it immediately, but after the lesson, the teacher might need to think back on his/her way of dealing with the problem if it was the correct way, or if he/she could have dealt with it any better. These two different ways of reflection are named as *reflection-in-action* and *reflection-on-action* by Donald Schön, one of the pioneers in the field. According to Schön (1983), reflection-in-action refers to the spontaneous decisions individuals make on their feet when they come across surprising situations, whereas reflection-on-action refers to the practice of asking questions and evaluating the process after the event takes place (Schön, 1987). It can be argued that reflection-in-action is a common and usual practice which most individuals in any profession perform unconsciously – which Schön (1983) agrees by stating that "although reflection-in-action is an extraordinary process, it is not a rare event; indeed, for some reflective practitioners it is the core of practice" (p. 69). Therefore, especially for the profession of teaching, where teachers come across those surprising situations in their classrooms every day, reflection-in-action can be regarded as a practice which is already carried out by most teachers in an unconscious manner. However, as Schön (1983) himself agrees, "reflection-in-action is not generally accepted – even by those who do it – as a legitimate form of professional knowing". In other words, although reflection-in-action can be regarded as a source of gaining teaching experience for surprising situations; for teachers to be professionally autonomous, in addition to reflection-in-action, they should also practice reflection-on-action, which involves looking back to one's teaching and reflecting on it with an aim to improve their teaching profession.

2.3.2. Models of Reflection

Although the very essence of reflective practice is based on a circle of practicing > reflecting > re-practicing (Figure 2.4), there are many different models suggested to elaborate on the nature of reflection. More than a few decades ago, Kolb and

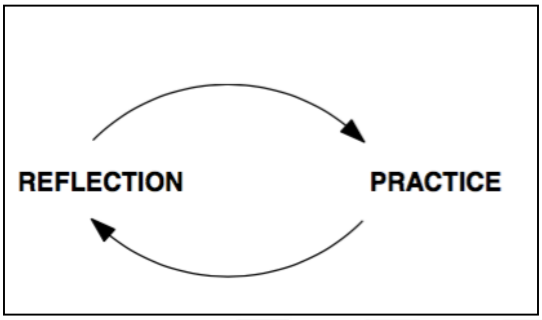

Figure 2.4. The cycle of reflection

Fry (1975), for example, came up with a model which described the four phases of *experiential learning*: (1) experience, (2) reflective observation, (3) abstract conceptualization, and (4) active experimentation (Figure 2.5). This model was criticized with the claim that to a large extent it deals with the analytic process required to *understand* practice and therefore failed to acknowledge the developmental links between the cognitive, emotional, social, and personal aspects an individual brings into learning process (Day, 1999; Korthagen & Vasalos, 2010). Korthagen (1985) reframed this model by taking into account the personal framework, emotions and needs of the individual and came up with the ALACT model (Figure 2.6). Korthagen and Vasalos (2010) later explain that since it is the

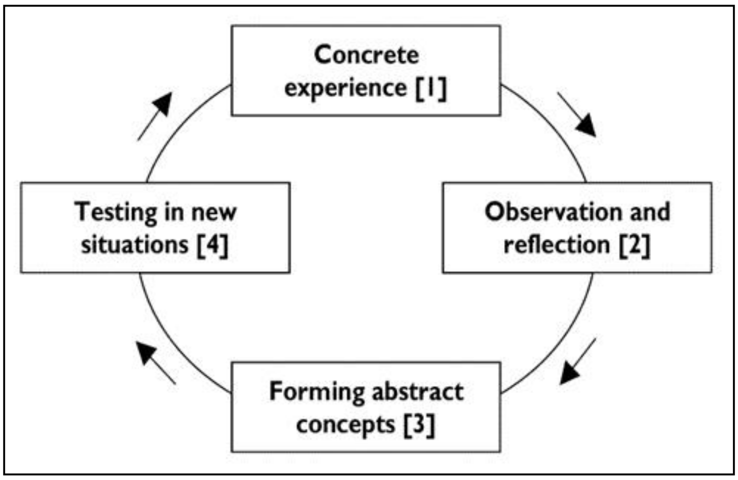

Figure 2.5. *Experiential Learning model (*Kolb, D. A., & Fry, R. (1975). Towards an applied theory of experiential learning. In C. L. Cooper (Ed.), *Theories of group processes* (pp. 33-58). New York: Wiley)

person himself which realizes the reflection as an action, his personal framework, his emotions and needs should be considered as well. However, although ALACT was a helpful process model, it did not go unchallenged and was found inadequate since failed to support the practitioner in knowing what to reflect on, which could easily make the reflection somewhat superficial. In 2005, Korthagen improved their model by adding six levels of reflection, namely environment, behavior, competences, beliefs, identity and mission (Figure 2.6).

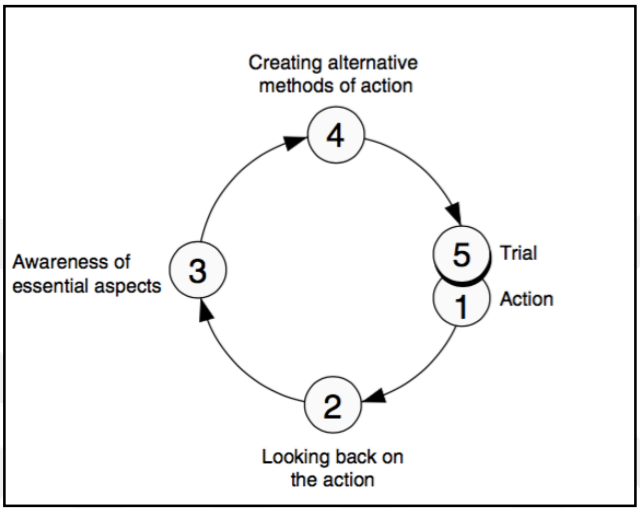

Figure 2.6. ALACT Model of Reflection (Korthagen, F.A.J. (1985). Reflective teaching and preservice teacher education in the Netherlands. *Journal of Teacher Education, 9*(3), 317-326)

Korthagen and Vasalos (2010) combined ALACT with the onion model and they call it Core Reflection model (Figure 2.7). They explain the logic behind the Core Model by suggesting that the more a person is in touch with the inner levels, the more the outer levels will be influenced. Once such a link between the "inside" and the "outside" is established, the reflection process starts helping to connect the "core" of the person to effective behavior in the outside world (p. 536). In this model, (a) *environment* refers to everything that teachers encounter outside of themselves, e.g., the whole classroom setting, the curriculum, and the school culture with all its implicit and explicit norms; (b) *behavior* refers to teachers' response to an incident, e.g., showing anger or empathy; (c) *competencies* refer to whether teachers have necessary competency to show that response, e.g., the competency to respond empathetically; (d) *beliefs* refer to assumptions a bout the world around teachers, which are often unconscious; (d) *professional identity* refers to the questions of teach ers such as "What kind of a teacher I think I am?", "What kind of a teacher I want to be?", "Do I want to be a kind of strict police officer, or do I aim at being a stimulating guide and supportive person to students?" (e) *mission* refers to the questions of teachers such as "Why did I decide to become a teacher in the first place?", "What do I see as my calling in the world?". This kind of reflection in the form of questioning oneself as a teacher is beneficial in various aspects because of many reasons. As Caro-Bruce and Klehr (2007) assert, teachers who are constantly questioning their own practice are more likely to make use of reflection in ways that benefit both their professional practice and student learning. As Zeichner and Liston (1996) agree, "if a teacher never questions the goals and the values that guide his or her work, the context in which he or she teaches, or never examines his or her assumptions, then it is our belief that this individual is not engaged in relective teaching" (p. 1).

When teaching practitioners how to do reflective practice, Korthagen (2001) emphasizes the important role of supervisors. He states that it is not enough to "help them to reflect", but they also need to "help them learn how to reflect" (as cited in Korthagen & Vasalos, 2001, p. 533). In their study, Meijer, et al., (2009), for example, found evidence for the core reflection model of Korthagen and Vasalos (2005), and they evidenced that the core reflection is only possible with the help of a supervisor who can deliberately highlight the resourceful aspects of the problematic situations and thus challenge teachers' tendency of

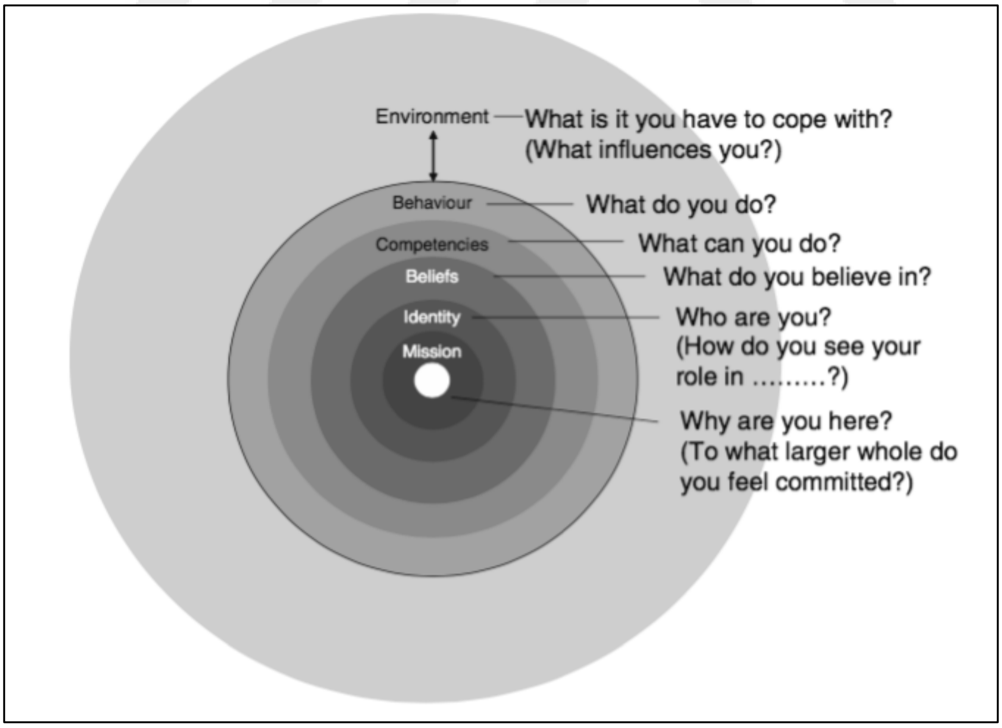

Figure 2.7. *The Onion Model of Reflection (*Korthagen, F. A. J., & Vasalos, A. (2005). Levels in reflection: Core reflection as a means to enhance professional development. *Teachers and Teaching: Theory and Practice, 11*(1), 47-71)

fixating all of their attention on the problematic aspects of the situation by further deepening teachers' insights into themselves.

However, it is important to note that many student teachers might not have the opportunity to work with a knowledgeable supervisor to teach them how to do reflective practice. Even after graduation, many institutions might not provide novice teachers with in-service trainings where they can work with competent mentors. As Griffin (1997) agrees, although reflection is a much desired practice in teacher education, the student teacher must often develop this practice on his or her own. This means that regardless of whether novice or experienced, pre-service or in-service, *learning* how to do reflective practice and *doing* reflective practice is up to teachers themselves. At this point, it can be argued that teachers' professional autonomy is one of the major factors that leads them to reflective practice. Without professional autonomy, reflective practice is unlikely to move beyond impulsive or routine actions. In fact, there are a number of studies which show that reflective practice can sometimes turn out to be ineffective or even maleficent for teachers. In Kelchermans' (1999) study, for example, teachers who were required to do reflective practice felt themselves *forced* to reconsider their teaching practices and professional selves. Here, "forcing" refers to compulsory lessons or assignments for pre-service teachers, or compulsory continuous or professional development programs for in-service teachers. As Kelchermans (1999) explain, these experiences of reflective practice carry an intense emotional load and are often experienced as 'stressful' and 'threatening' (p. 184). It can be argued that what makes these reflective teaching practices stressful and threatening for teachers is the lack of professional autonomy. In another study, Gore and Zeichner (1991) carried out a longitudinal research with the action research projects of 18 pre-service students enrolled at the University of Wisconsin-Madison. The authors were expecting that with the help of the projects, the teachers would recognize the importance of reflective practice and develop an understanding of the critical theorist viewpoint. The results of the study, however, caused disappointment for the authors since the pre-service teachers showed very little understanding of the importance of the reflective practice, and they showed almost no concern about the critical issues related to teaching – as the subject matter of the action research projects. These two studies show that engaging teachers in reflective teaching programs might turn out to be ineffective if these teachers are not professionally autonomous. When teachers lack professional autonomy, it is quite unlikely for them to find the motives, time, or resources to do reflective practice by thinking back about their lesson, analyzing if anything went wrong, identifying the disorder, or acting upon it. In other words, lack of professional autonomy might prevent teachers from realizing the value of reflective practice as a means of bettering their teaching practices and improving their students' learning. On the other hand, if professionally autonomous, teachers would do their best to realize their capability, find the motives within themselves, create time, and seek resources in order to do reflective practice. Therefore, rather than feeling stressful or threatened as in Kelchermann's (1999) study, professionally autonomous teachers would appreciate any reflective practice training provided for them by the institution they work in and rather than feeling forced, they would turn these trainings into an opportunity to better their teaching and thus to better their students' learning. Indeed, given that autonomy is a matter of degree, professionally autonomous teachers at the other end of the continuum would not even be contended only with the reflective practice trainings offered at their institutions; rather, they would *learn how to do it by themselves* without any external requirement or forcing by the institutions they work in. In turn, this voluntary reflective practice would also boost their professional autonomy. As Colton and Sparks-Langer (1993) agree "the process of reflection feeds a constructive spiral of professional development and competence," (as cited in Pollard & Triggs, 1997, p. 4) because "the reflective approach may encourage teachers to take greater responsibility for their own professional growth and to seek ways of acquiring some degree of professional autonomy" (Korthagen, 1988, p. 37).

2.3.3. The Relationship between Teachers' Instructional Autonomy and Professional Autonomy: The Role of Reflection

"Many of the best changes for teachers have come from teachers."

(Goodwyn, 1997, p. 116)

It is known that autonomy refers to two types of self-mastery: one mastering one's own self (an internal, psychological mastery); and two, freedom from mastery exercised over oneself by others (an external, social and political freedom) (Pennycook, 1997, p. 36). For teacher autonomy, it can be argued that the latter may be dependent on the former. In other words, teachers' instructional autonomy (from political sense) might be dependent on their reflective practice and professional autonomy. As, Lasley and Galloway (1983) explain, "Lack of instructional autonomy serves as another deterrent to teacher professionalism. Teachers are often told what to teach, when to teach, and how to teach. They are not treated as professional decision-makers; they are managed like sub-professional technicians" (p. 5).

For teachers to overcome these limitations to their instructional autonomy, they need to be aware of the constraints they are surrounded with, and rather than yielding to them, they need to figure out how they can eliminate, or at least work effectively within these constraints. According to Benson (2000), "learner autonomy develops within the space that the teacher is able to open up for it in their interpretation of broader constraints on the learners' freedom of action in learning. Teacher autonomy is thus concerned with the teacher's own ability and opportunity to explore and expand the boundaries of this space" (p. 116). Even internalized constraints like teacher beliefs, as Lamb (2008) explains, may possibly be overcome through critical reflection. For Little (1995), creating freedom through reflective practice and professional autonomy is related to being a successful teacher. As he explains, "genuinely successful teachers have always been autonomous in the sense of having a strong sense of personal responsibility for their teaching, exercising via continuous reflection and analysis the highest possible degree of affective and cognitive control of the teaching process, and exploiting the freedom that this confers" (p. 179). Professional change implies questioning one's private theories and practices; and this act of questioning is only possible through reflection. In other words, in order to overcome the limitations to their instructional autonomy, teachers should be professionally autonomous so that they can do reflective practice and with the help of reflective practice, they can seek and find out ways to overcome those limitations or expand the boundaries laid on their autonomy in classroom. In her study, Castle (2006) concludes that:

> Professional knowledge gained from pedagogical research [through reflective practice] allows teachers to be autonomous (self-regulating) in their approach to making decisions such as choosing appropriate approaches to curriculum and teaching that will promote the growth and development of students. Autonomous teachers are able to articulate their rationales for teaching and for doing research to others in ways that preserve their classroom decision-making power (p. 1102).

In his comprehensive review, Usma (2007) concludes that giving teachers instructional autonomy would provide ineffective if teachers are not professionally autonomous, and he concludes that "teachers may have the freedom to exert control over school matters, but may decide not to exert their autonomy either because they may lack the professional competence to succeed or because they may be unmotivated to do it" (p. 22). In short, it can be argued that although it is a sub-dimension of teacher autonomy, teachers' professional autonomy is the key to teachers' instructional autonomy.

2.4. Burnout

“Stress is an endemic part of teachers' work.”
(Smylie, 1999, p. 177)

Burnout can be defined as “a chronic state of exhaustion due to long-term interpersonal stress within human service professions” (Schwarzer & Hallum, 2008, p. 154) or in more simple terms, it can be defined a “syndrome” that occurs frequently among individuals who do people-work of some kind (Maslach & Jackson, 1981). As it is clear in these definitions, burnout is one of the most critical factors that affects not only teachers but also people from other professions as well. De Heus and Diekstra (1999) carried out a country-wide study with an original sample of 13.555 working individuals (between ages 18 and 64) in Netherlands. The data was collected with a one-page questionnaire printed in 14 Dutch newspapers called “How’s Work in Netherlands?”. To define social professionals as unambiguously as possible, only respondents who answered "yes" to the "working-with-people" question were selected, leaving the researchers with 3.758 respondents. Their study indicated that among the six types of social professions – namely, mental health professions, physical health professions, nursing professions, domestic and personal care professions, teachers, and managers – teachers were found to be especially vulnerable for burnout, more than workers in any other social profession. The reason for this result, as suggested by De Heus and Diekstra (1999), might be the fact that teachers in their study reported less time control, lower participation in decision making, and less colleague support than other social professionals. In a similar vein, Kalimo and Hakanen (2000) found that in Finland, teachers have the highest burnout levels compared with workers in all other human services and white-collar jobs (cited from Pyhältö, Pietarinen & Salmela-Aro, 2011, p. 1011). Many studies show that teaching is one of the ‘at-risk’ professions not only in Europe, but in Africa (Schroeder, Akotia, & Apekey, 2001), Australia (Dorman, 2003; Pillay, Goddard, & Wilss, 2005), Canada (Fernet, Guay, Senecal, & Austin, 2012), China (Chan, 2003; Lam, Tse, Lam, & Loh, 2010), Korea (Lim & Eo, 2014), North America (Perrachione, Rosser, & Petersen, 2008), Turkey (Bümen, 2010; Cephe, 2010; Sünbül, 2003), and United States (Fisher, 2011). In the literature, teacher burnout refers to a state of mental, emotional, and attitudinal exhaustion in teachers which results from a prolonged experience of stress. This stress of teachers is believed to derive from unpleasant emotions such as anger, tension, frustration, anxiety, depression and nervousness, resulting from the aspect of their work (Kyriacou, 2010).

2.4.1. Defining Burnout: A Theoretical Framework

Although the term teacher burnout might appear to be a single or unitary concept, it is known that it has various definitions, many different aspects and a number of sub-components. Being among the pioneers in the field of burnout, Maslach and Jackson (1984) define burnout as “a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment, which can occur among individuals who work with other people in some capacity” (p. 141). In this definition, emotional exhaustion refers to feelings of being emotionally overextended and depleted of one's emotional resources; depersonalization refers to a negative, callous, or excessively detached response to other people, who are usually the recipients of one's service or care; and reduced personal accomplishment refers to a decline in one's feelings of competence and successful achievement in one's work (Maslach, 1993). Taking these three factors as main constructs of burnout, Maslach and Jackson (1981) developed Maslach Burnout Inventory (MBI) in order to measure these three hypothesized aspects of the burnout syndrome.

As opposed to Maslach and Jackson (1981) who suggest that burnout occurs frequently among individuals who do “people-work of some kind” (p. 99), Demerouti, Bakker, Nachreiner, and Schaufeli (2001) argue that the feeling of burnout is not limited to human-service professions only, and thus they suggest that burnout is a syndrome which occurs irrespective of the type of occupation. To this end, Demerouti et al. (2001) propose the Job Demands-Resources (JD-R) Model of Burnout (Figure 2.8). As Bakker, Demerouti and Verbeke (2004) explain, the central assumption of the JD-R model is that burnout develops – irrespective of the type of job or occupation – when (certain) job demands are high and when (certain) job resources are limited (p. 99). The model was influenced by dominant work psychological models, like Karasek's (1979) demand-control model, and originated from the transactional paradigm of stress proposed by Lazarus and Folkman (1984) that defined stress as a disruption of the equilibrium between the cognitive-emotional-environmental system and external factors. According to JD-R model, the development of burnout follows two processes (Figure 2.8). In the first process, demanding aspects of work (i.e., extreme job demands) lead to constant overtaxing, and in the end, to exhaustion. In the second process, a lack of resources complicates the meeting of job demands, which further leads to withdrawal behavior. In the long term, this withdrawal behavior results in disengagement from work (Demerouti et al., 2001, p. 502). Empirical evidence supports the J-DR model (Bakker & Demerouti, 2007; Bakker, Demerouti, & Euwema, 2005; Tement &

Korunka, 2013) also among the professional group of teachers (Hakanen, Bakker & Schaufeli, 2006; Košir, Tement, Licardo & Habe, 2015; Jepson & Forrest, 2006).

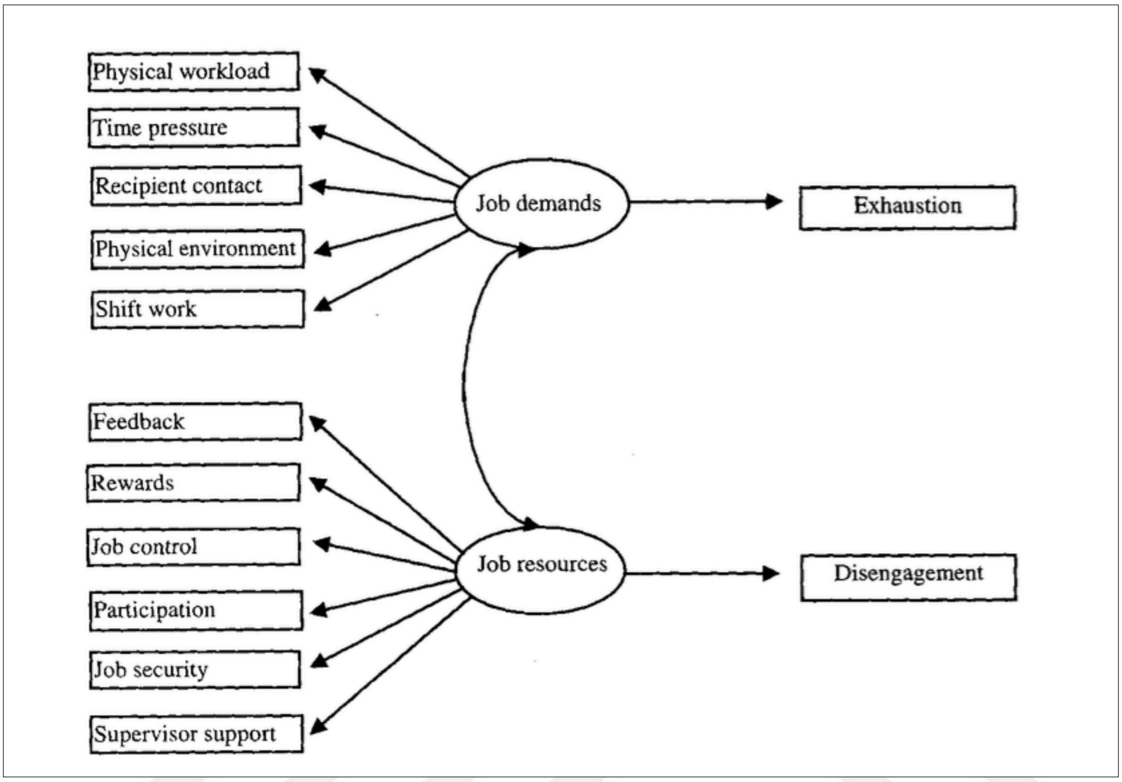

Figure 2.8. The Job Demands-Resources Model of Burnout (Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (*2001*). The job demands-resources model of burnout. *Journal of Applied Psychology, 86*(3), 499-512)

In addition to these definitions and models, there are also a number of attempts to identify the influences on burnout. For example, Hogan and McKnight (2007) suggests six factors as influences on burnout: (1) workload; (2) lack of control over establishing and following day-to-day priorities; (3) insufficient reward and the accompanying feelings of continually having to do more for less; (4) the feeling of community in which relationships become impersonal and teamwork is undermined; (5) the absence of fairness, in which trust, openness, and respect are not present; and (6) conflicting values, in which choices that are made by management often conflict with their mission and core values. In a mixed-method design study, which he carried with 37 English instructors at university, Cephe (2010) interviewed teachers who were facing a certain level of burnout, and he came up with micro (i.e., academic/administrative) and macro (i.e., governmental/personal) factors which he identified as influential in burnout (Table 2.1).

Table 2.1.
Micro and Macro Factors Contributing to Burnout

A. ACADEMIC (MICRO)	B. ADMINISTRATIVE (MICRO)
• Lack of Clinical Supervision • Little or no in-service training • Number of courses given • Overloaded work of the courses – evaluation and feedback of writing assignments, quizzes, material preparation • A need for a mentor, a guide for both linguistic and methodological problems	• Rules and regulations without an explanation • Communication styles of the administrators Supportiveness and guidance of administrators • Little or no right of intervention in the development and improvement of the system • Caring to personal needs and situations Feeling of being respected • Unfair work distribution • Feeling of cooperation and group work Competency and qualification of the administrators
C. GOVERNMENTAL (MACRO)	**D. PERSONAL (MACRO)**
• Wages and salaries • Economic power – value of the salary • Extra work – a burden or a chance? • Universities contributions to social life-clubs, athletics, alumni communities etc. • Social status of being an instructor • Professional rights • Civil Society Associations	• Feeling of belongingness to the profession • Social prestige of being a language teacher • Feeling of depersonalization • Happy or sad to choose this career • Feeling of improvement • Feeling of success and achievement • Feeling of alienation

Cephe, P. T. (2010). A study of the factors leading English teachers to burnout. *H. U. Journal of Education, 38,* 25-34.

2.4.2. Factors Related to Teacher Burnout

Since teacher burnout is relatively a multi-faceted concept, there is a plethora of research studies which relate burnout with a number of different concepts. Demographic factors, such as gender, marital status, and age are among the most extensively researched variables associated with teacher burnout. Lackritz (2004), for example, studied whether gender was a predictive factor in terms of teacher burnout using MBI as a measure, and found that female faculty members have significantly higher mean levels of emotional exhaustion, but men have higher mean depersonalization levels. There are other studies which also found similar results suggesting that females are more prone to experience burnout (Adekola, 2010; Antoniou, Polychroni, Vlachakis, 2006; Klassen & Chiu, 2010; Kokkinos, 2006). However, there are other studies which did not find any significant relationship between gender and measures of burnout (Özdemir, 2007; Platsidou & Agaliotis, 2008; Skaalvik & Skaalvik, 2009). In their meta-analysis with 183 studies, Purvanova and Muros (2010) concluded that the results for overall burnout seem to show that women are likelier to report burnout than men. However, as they explain, the more detailed examination reveals that regarding the two central burnout components (i.e., emotional exhaustion and depersonalization) women are likelier to report the emotional exhaustion burnout component than men, whereas men are likelier to report the depersonalization component of burnout than women. Marital status is another demographical factor that has been associated with burnout. Özdemir (2007), for instance, worked with 523 Turkish primary school teachers and found that teachers who are single tend to have more emotional exhaustion and depersonalization. Maslach and Jackson (1981) came up with similar results suggesting that marital status is significantly related to emotional exhaustion. Conversely, there are also other studies which found no significant difference in terms of the relationship between marital status and burnout (Byrne, 1991, 1999; Maslach & Jackson, 1986). Taking age as a demographic factor in terms of teacher burnout, Skaalvik and Skaalvik (2011) found that older teachers tended to report more positive relations with parents, less discipline problems, and higher job satisfaction than did younger teachers, whereas younger teachers reported more positive relations with their colleagues. Platsidou and Agaliotis (2008) similarly concluded that older age is associated with lower burnout. Aldrup, Klusmann and Lüdtke (2017) also asserted that the least experienced teachers in their study appeared to be more prone to emotional exhaustion.

Apart from demographic factors, the reviewed literature shows that teacher burnout is substantially associated with a number of different concepts either related to institutional factors such as workplace or work environment (Foley & Murphy, 2015; Ju, Lan, Yi, Feng, & You, 2015; Pyhältö, et al., 2011; Malinen & Savolainen, 2016; Maslach, Schaufeli, & Leiter, 2001), interpersonal relationships at work (Cano-García, Padilla-Muñoz, & Carrasco-Ortiz, 2005; Dorman, 2003; Friedman, 2003; Gavish & Friedman, 2010; Leung & Lee, 2006; Reeves, Pun & Chung, 2017; Skaalvik & Skaalvik, 2009, 2011) or concepts related to personal factors such as teacher self-efficacy (Brouwers & Tomic, 2000; Bümen, 2010; Faez & Valeo, 2012; Schwarzer & Hallum, 2008; Skaalvik & Skaalvik, 2010, 2016), teacher beliefs (Demirel, 2014; Lavigne, 2014), individual differences (Foley & Murphy, 2015), professional identity (Hong, 2010); emotional intelligence (Akbari & Tavassoli, 2011; Ju, et al., 2015; Mahmoodi & Ghaslani, 2013), perfectionism (Chang, Lee, Byeon, Seong & Lee, 2015); motivation (Davis & Wilson, 2000; Fernet, Trépanier, Austin, Levesque-Côté, 2016), and so on.

2.4.3. Coping with Burnout

Although such concepts related to burnout are abound in literature, it can be argued that they have one fact in common: *making teachers feel stressful*. In his study, when Hong (2010), for example, asked the participant teachers what they thought about the benefits of making a dropout decision, they mentioned "less stress" and "less burnout" (p. 1538). Teacher stress is often defined as the experience of negative or unpleasant emotions resulting from aspects of the work (Kyriacou, 2001). Hakanen, et al., (2006) call these aspects "job demands", whereas Betoret (2006) terms them "stressors". In their study, Skaalvik and Skaalvik (2015) suggested seven categories of stressors that were identified by more than half of the teachers in their study: disruptive student behavior, workload and time pressure, student diversity and working to adapt teaching to students' needs, lack of autonomy, lack of shared goals and values, problems and conflicts related to teamwork, and lack of status.

Schönknecht (1997) explains that it is not possible to argue that a certain situation would absolutely cause stress for every teacher. Rather, burnout depends on the way teachers perceive stressful situations and the coping strategies they use to deal with them (as cited in Kelchtermans, 1999, p. 180). How teachers can cope with such stressors is explained with the "buffer hypothesis", which Bakker, Demerouti, and Verbeke (2004) name as one of the assumptions of the JD-R model. The buffer hypothesis suggests that job resources such as autonomy, development possibilities, and social support might moderate (i.e. buffer) the impact of job demands on stress reactions, including burnout: As Kahn and Byosiere (1992) explain:

> The buffering or interaction effect can occur between any pair of variables in the stress-strain sequence. The properties of the work situation, as well as characteristics of the individual, can buffer the effects of a stressor. The buffering variable can reduce the tendency of organizational properties to generate specific stressors, alter the perceptions and cognitions evoked by such stressors, moderate responses that follow the appraisal process, or reduce the health-damaging consequences of such responses (p. 622 – as cited in Bakker et al., 2004, p. 89).

For instance, Bakker, Demerouti, and Euwema (2005) worked with over 1,000 teachers at a large institute for higher education and showed that several job demands influenced burnout only if teachers possessed few job resources (autonomy, social support, supervisory coaching, and feedback). In a similar vein, in their study among four home-care organizations, Bakker, Demerouti, Taris, Schaufeli and Schreurs (2003) found that the relationship between job demands (e.g., workload, physical demands, and patient harassment) and feelings of exhaustion disappeared when home-care professionals possessed resources such as autonomy, opportunities for professional development, and performance feedback.

It follows that, for teachers to cope with burnout, it is vitally important for them to *not* to surrender to these job demands by letting them to cause stress and demoralization, eventually carving the way to burnout. Rather, as Lamb (2000) suggests, they need to understand the constraints upon their practice but, rather than feeling disempowered, they need to empower themselves by "finding the spaces and opportunities to maneuver" (p. 127). In other words, job demands such as workload, emotional demands, or work-home conflicts, which perform as stressors and eventually cause teachers to feel burnout, can be dealt – and maybe even overcome – to some extent with the help of job resources such as autonomy, development possibilities, and social support.

2.4.3.1. Burnout and Teacher Autonomy

Lack of teacher autonomy (in the sense of not having control over their work environment, choice of teaching methods or educational strategies, etc.) is among the most common stressors which cause teachers to experience burnout since lack of autonomy may mean that some teachers have to use teaching methods and work towards goals that they do not believe in or that would not be their personal priority (Skaalvik & Skaalvik, 2008). Lamb (2000) agrees that teachers who perceive themselves as powerless to behave in an autonomous way may become disaffected, possibly leaving the profession. Every day, teachers have to cope with long working hours, misbehaving students, and even difficult parents. In the classroom when they also face strict teaching programs which they have to catch up with, when they have to teach in a way that they do not believe in, or when they have very little or no word to say in terms of educational planning, it is quite likely that they will eventually face burnout. Friedman and Farber (1992), for instance, reported that teachers who considered themselves less competent in classroom management and discipline reported a higher level of burnout than teachers with a higher level of self-efficacy. Similarly, Pearson and Moomaw (2005) found in their study that as teachers' curriculum autonomy increased, their on-the-job stress decreased. The opposite of this, that is granting teachers with instructional/curriculum autonomy, as Kelchtermans and Strittmatter (1999) agree, would increase their professional motivation and thus reduce the risk of burnout. Many studies also show that having the opportunity to exploit teacher autonomy as a job resource has been shown to be associated with higher levels of job satisfaction (Guarino, Santibañez, & Daley, 2006; Khezerlou, 2013; Koustelios, Karabstzaki, & Kousteliou, 2004; Skaalvik & Skaalvik, 2009, 2010, 2014; Zembylas & Papanastasiou, 2006). In their study, Skaalvik and Skaalvik (2015), for instance, interviewed thirty Norwegian elementary and middle school teachers, and the results revealed that one third of the teachers explicitly emphasized autonomy as a major source of job satisfaction. Chaaban and Du (2017) found similar results with both novice and experienced teachers, and concluded that lack of autonomy is one of the factors which affect teachers' job satisfaction negatively. Similarly, Fernet, Austin, Trépanier and Dussault (2013) concluded in their study that perceived autonomy is particularly important in explaining emotional exhaustion and depersonalization components of teacher burnout.

There are also many studies which draw on JD-R model as their theoretical framework when investigating the effect of teacher autonomy on burnout. Hakkanen, et al., (2006) found that teachers' perceived control over his/her job negatively predicts burnout and positively predicts teachers' work engagement. As an important finding of their study with Slovenian teachers, Košir et al., (2015) concluded that autonomy is a significant predictor of stress and burnout after controlling for reflection and rumination. Similarly, in their review of literature over fifteen years, Mansfield, Beltman, Broadley and Weatherby-Fell (2016) came up with the conclusion that autonomy is among contextual factors which are important for teacher resilience. Bakker, Demerouti, Boer and Schaufeli (2003) concluded that employees (other than teachers) who can draw upon job resources such as job control and participation in decision-making might be more motivated to do their job, feel stronger commitment to their organization, and report themselves less often sick than their counterparts.

Theoretically, the classic burnout symptoms (i.e. emotional exhaustion, diminished personal accomplishment, and depersonalization) would be reduced in environments where teachers experience positive professional growth (Kelchtermans & Strittmatter, 1999). However, despite the fact that there is a large amount of studies carried out on the relationship between burnout and teacher autonomy, most of them define teacher autonomy from political dimension – as freedom from control over professional action. Thus, there are very few studies which refer to teacher autonomy in the perspective of teachers' *professional* autonomy. Teachers' professional autonomy, as defined in this dissertation, refers to teachers' capability, motives, and time to develop themselves professionally in collaboration with their colleagues and/or students. According to Benard (2003), for teachers to refrain from the stressors which cause burnout, they need resources, time, professional development opportunities, materials, caring collegial relationships, high expectations on the part of school leaders, and opportunities for shared decision-making and planning, which shows that teachers' professional autonomy would function as a coping strategy for burnout. Lam and Yan (2011) carried out an interview-based longitudinal-design study, and they interviewed eleven beginning teachers after graduation from the teacher training program and then after they had a two-year teaching experience. The results suggested that three school factors had the most impact on teachers' level of job satisfaction, which are (1) volume of administrative/non-educational workload; (2) equitable distribution of work and office politics; and (3) teachers' professional autonomy. Patterson, et al. (2004) carried out an interview-based study with 16 resilient teachers and teacher leaders from a schools that reported student achievement scores equal to or above state averages in reading or mathematics in the USA. The findings indicated that resilient teachers have certain characteristics in common, which are listed as the following:

> Resilient teachers…
>
> 1. … have a set of personal values that guides their decision-making.
> 2. … place a high premium on professional development and find ways to get it.
> 3. … provide mentoring to others.
> 4. … are not victims – they take charge and solve problems.
> 5. … stay focused on the children and their learning.
> 6. … do whatever it takes to help children be successful.
> 7. … have friends and colleagues who support their work emotionally and intellectually.
> 8. … are not wedded to one best way of teaching and are interested in exploring new ideas.
> 9. … know when to get involved and when to let go (pp. 5-6).

Here it can be argued that the factors such as having a personal set of values, placing a high premium on professional development and finding ways to get it, and not being wedded to one best way of teaching and being interested in exploring new ideas are among the qualities a professionally autonomous teachers have. In addition, the social factors such as having friends and colleagues who support their work emotionally and intellectually, or providing mentoring to others also show that being professionally autonomous might serve as a coping strategy for burnout. Studying the effects of organizational factors on teacher attrition, Ingersoll (2001) found that poor opportunity for professional advancement and colleagues' lack of professional competence are stated as two of the reasons for their turnover. It is understood that for teachers, both their and their colleagues' professional autonomy is an important factor which keeps them working in their profession.

2.4.3.2. Burnout and Reflective Practice

On the one hand, reflective practice is one of the domains which is affected negatively by burnout since one of the major consequences of burnout is decrease in job performance (Bakker, et al., 2003; Bakker, et al., 2004). In addition to the fact that their job is difficult in its very nature *per se*, doing reflective practice is not an easy task for teachers, for they usually have to endeavor extra time and effort to practice reflectively. Singh, Goolsby, and Rhoads (1994) provide some explanations to how burnout results in decrease in job performance – and indirectly reflective practice. According to Singh et al. (1994), exhaustion diminishes the available energy of employees and leads to an impairment of the efforts put into work. Moreover, burnout entraps employees in a negative, vicious spiral in which they do not seek help or are not prone to strive for changes in their situation, and, as a result, they continue to perform ineffectively. Finally, the experience of burnout reduces employees' self-confidence in solving work related problems, and therefore their performance diminishes (as cited in Bakker, et al., 2004, p. 85).

On the other hand, reflection might be considered a coping strategy for burnout because in essence, *reflective practice is about solving problems*. It is agreed in the literature that reflection helps offset job demands by enabling more constructive coping and problem solving (Korthagen & Vasalos, 2010; Loughran, 2002; Sellars, 2013). As Korthagen and Wubbels (1991) simply exerts: "Reflective teachers develop a high degree of job satisfaction" (p.14). Given that burnout is caused by a number of in-and-out of classroom problems, teachers' being able to cope with these problems through reflective practice might diminish the risk of feeling burnout. For teachers to become reflective practitioners, however, experience only is not adequate. Loughran (2002) points out that if experience is to result in learning, reflection on experience is essential. In other words, the experience teachers gain in years does not guarantee that they necessarily *learn from experience.* When they fail to learn from experience, it is quite unlikely that these teachers will come up with their own solutions to the problems they face in future. With reflection, there is a possibility that these worked solutions to already occurred problems might act as antidotes for any similar problem that comes up in the course of their teaching. Given that especially young teachers are more affected by the symptoms of burnout than the experienced ones (Byrne, 1991; Darling-Hammond, 2003; Ghorpade, Lackritz & Singh, 2007; Goddard & O'Brien, 2004; Lackritz, 2004), it becomes vitally important that they should make use of reflective practice as an effective coping strategy for burnout from the initial years of their teaching careers.

Despite the importance of reflection as a coping strategy for burnout, Košir et al., (2015) agree that the related studies are very few in number. As one of the exceptions, Miller (1999) depicts a case study, which is about a school reform carried out in a suburban school in the United States. In the study, as a part of the school reform, the teachers went through many changes, one of which was reflection. In fact, as Miller (1999) states, it was at the core of teachers' work in restructuring schools. During the reform, teachers still felt stressful – but not burnout:

> It is the case, however, that the faculty at Central High School are not enervated; they are energized. They are stressed; but they are not burned out. Teachers at the school will say, "Sorry, my plate is full," and then proceed to load their plates some more. Central High School helps us to see the possibility for maintaining high standards for students, increasing demands on teachers, and still maintaining a stable school environment. There are many explanations for this turn of events, but this analysis looks at the variable that was most frequently mentioned by teachers and most carefully documented by the school's leadership team. That is professional development. (pp. 152-153)

Here it follows that although they may still feel stressful, reflective practice as a form of professional development helps teachers to avoid the feeling of burnout. There are however, a number of studies which found that resilient teachers (i.e. teachers who stay in the profession despite difficulties) benefit from reflective practice as a form of professional development. The idea is that, as Hong (2012) explains, if teachers ‘believe that problems can be resolved (unstable) and think that they can contribute and control circumstances (controllable), then they are more likely to be resilient and more adept at planning and adjusting coping strategies’ (p. 421). In their interview-based study with 16 resilient teachers and teacher leaders, Patterson, et al. (2004), for example, found that reflective practice in the form of questioning and solving problems is among the most important factors for teachers as a coping strategy for burnout. Another corroborating finding was found by Korhagen and Wubbels (1995) who concluded in their study that reflective teachers develop a higher degree of job satisfaction and were less likely to experience burnout.

Adopting a different viewpoint, Whatley (1998) questioned the reasons why most teachers are women and studied with 12 ‘gifted’ female teacher educators chosen by four criteria: (1) all of the respondents were women; (2) practicing teacher educators; (3) former classroom teachers; (4) and recipients of doctoral degrees in education. By gaining an insider's perspective on the education profession, Whatley (1998) aimed to understand how gifted women function as teachers and whether their talents are enhanced or constrained within such a context. The results from the narratives suggested that reflection is the key word for resiliency. Whatley (1998) comments on how these teachers stay in the profession despite challenging circumstances as the following:

> All of the participants in this study have demonstrated resiliency in overcoming diverse obstacles. Such obstacles include childhood abuse and neglect, poverty, sexual molestation, eating disorders, debilitating illness and accidents, abusive marriages, divorce, death of a spouse, racism, and, for all of the respondents, sexism. Intense self-reflection has enabled them to transform pain into growth and to achieve success and fulfillment in both personal and professional domains. It is through response to adversity, then, that the characteristics of resiliency and reflective thinking become intertwined. Habits of reflection and resilience are required of effective teachers, and these 12 women believe their careers as educators have offered them numerous opportunities in which to use and strengthen these attributes (p. 118)

In their qualitative study, Leroux and Théorêt (2014) found that resilient teachers made use of internal reflection practices. Corroborating results were also found in Castro, Kelly and Shih's (2010) and Tait's (2008) studies in which they found that novice teachers showed resilience by doing reflective practice in the form of problem-solving. Similarly, Sarafoglu (1997) found evidence that that reflectivity is among the most effective intrinsic reasons why teachers stay in the profession.

CHAPTER III

METHOD

"Who dares to teach must never cease to learn."

John Cotton Dana

3.0. Introduction

This chapter provides information on the method and the procedure of the study. In each section, the research design, hypotheses and research questions, scope of the study, participants, instruments, data collection techniques, and the data analysis methods are explained in detail. Most particularly, since one of the instruments used in the data collection phase of the present study (i.e. TEPAQ) was created from scratch, detailed information about its construction, and comprehensive explanation about the verification of its validity and reliability is given along with the other two instruments (i.e. ELTRI and TBS) used in the data collection of the present study.

3.1. Research Design

This research study aims to investigate the relationship among teachers' professional autonomy, their reflective practices, and burnout levels with the help of three instruments. To measure teachers' burnout levels, Teacher Burnout Scale (TBS) by Richmond, Wrench and Gorham (2001), and to measure their reflective practices, English Language Teaching Reflection Inventory (ELTRI) by Akbari, Behzadpoor and Dadvand (2010) were used. For teachers' professional autonomy, since the reviewed literature suggested no valid and reliable measurement tool, a questionnaire was devised from scratch in order to measure teachers' professional autonomy which is defined in this dissertation as "*teachers' capability, motives, and time to develop themselves professionally in collaboration with others*".

Therefore, this research study has two phases with two different research designs. The first phase was carried out in order to devise the questionnaire for teachers' professional autonomy, and it was based on mixed-methods research design; and the second phase was the main data collection phase with a survey design using three different instruments, and thus it was quantitative in nature. Both research designs are explained below in detail.

3.1.1. Phase 1: Devising Teachers' Professional Autonomy Questionnaire (TEPAQ)

In the first phase of the study, an instrument (i.e. TEPAQ) was created from scratch in a mixed-methods research design. As Greene, Caracelli and Graham (1989) explain, mixed methods research design has 5 different functions: (1) triangulation function, (2) complementarity function, (3) development function, (4) initiation function, and (5) expansion function. Among these functions, *the developmental function* "seeks to use the results from one method to help develop or inform the other method, where development is broadly construed to include sampling and implementation, as well as measurement decisions" (p. 259). Therefore, when developing TEPAQ as a quantitative measurement tool, this developmental function of mixed methods design was utilized as the item pool of the instrument was written by being based on the data derived from qualitative data collection methods (i.e. focus group interviews). In other words, to write the item pool for TEPAQ, the researcher relied on participant teachers' individual comments and their mutually constructed ideas about teachers' professional autonomy as they interacted with each other during the focus group interviews. In addition to the data coming from these interviews, the researcher also made use of ideas and concepts related to the construct in the reviewed literature along with her own verbal ability. Further details about the process of constructing TEPAQ are given in the following sections.

3.1.2. Phase 2: Instrumentation

This second phase of the present study has a survey-design, and thus it is quantitative in nature. The main data were collected with the help of three separate quantitative instruments. In addition to TEPAQ, which measured teachers' professional autonomy, two different instruments were used to assess teachers' reflective practices and their burnout levels. In order to measure teachers' burnout levels, Teacher Burnout Scale (TBS) by Richmond et al. (2001), and to measure their reflective practices, English Language Teaching Reflection Inventory (ELTRI) by Akbari et al. (2010) were used. Since these three instruments were consecutively administered to the participants to gather quantitative data, the second phase of this study has a survey design and it is quantitative in nature. Further details about ELTRI and TBS instruments are given in following sections.

3.2. Research Questions and Hypotheses

In this research study, the following research questions and sub-questions are asked:

- Research Question 1:
    - Are Turkish EFL teachers:

      1a) professionally autonomous?

      1b) reflective?

      1c) burned out?
- Research Question 2:
    - Do these results differ by:

      2a) gender?

      2b) level of education?

      2c) work experience?

      2d) type of university?
- Research Question 3:
    - What is the relationship among teachers' professional autonomy, reflective practice, and burnout?

- Hypotheses for Research Question 3:

  H1-1) There is a <u>positive bi-directional relationship</u> between teachers' professional autonomy and their reflective practice.

  H1-2) There is a <u>negative bi-directional relationship</u> between teachers' burnout and their professional autonomy.

  H1-3) There is a <u>negative bi-directional relationship</u> between teachers' burnout and their reflective practice.

The hypothesized model is presented in Figure 3.1.

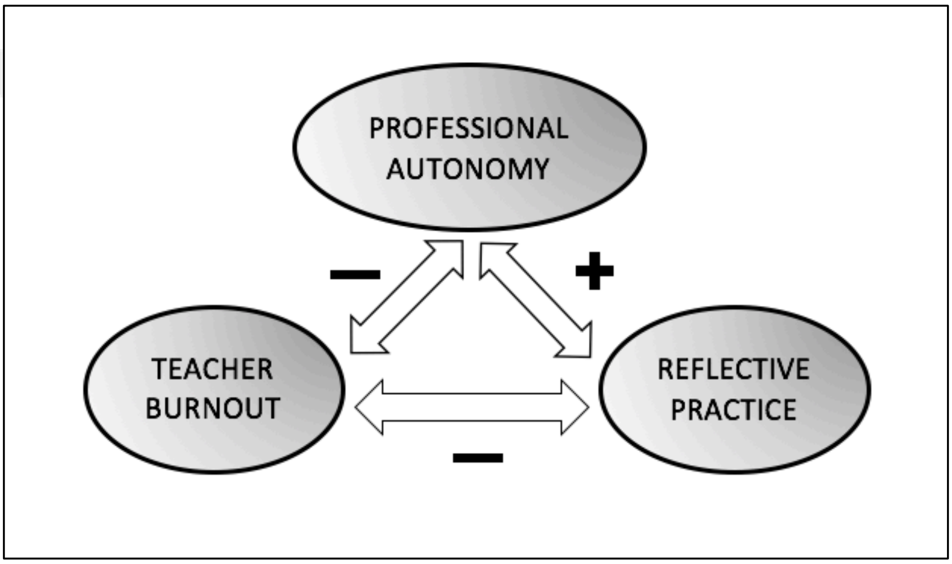

Figure 3.1. The hypothesized model for the present study

3.3. Participants

3.3.1 Participants in Phase 1: Focus Group Interviews to Devise TEPAQ

A total number of 15 English language teachers, who worked at a preparatory school of a state university in Ankara, participated in the data collection of the first phase. The selection of these participants was based on purposeful sampling because as Yin (2011) and Marriam (2009) agree, with focus group interviews, purposeful sampling should be used because the aim is to include people who know the most about the topic so that the interview would yield the most relevant and plentiful data. In addition, it is believed that purposeful sampling allows the researcher to deliberately interview some people who might hold different views related to the topic of study, thus enriching the diversity of the data collected (Yin, 2011). To this end, since the main aim of the focus group interviews carried in this study was to collect data in order to create an item pool to devise TEPAQ, the teachers who took part in focus group interviews were selected purposefully by the researcher.

In the literature, it is agreed that focus groups are combined of usually 4 to 12 participants because as Cohen, Manion, and Morrison (2000) explain, too small groups cause intra-group dynamics to exert a disproportionate effect, and too large groups might become unwieldy and hard to manage. Cohen et al., (2000) further indicate that conducting only one focus group interview is insufficient as “the researcher will be unable to know whether the outcome is unique to the behavior of the group” (p. 288). For this reason, two separate focus groups (i.e. one consisting of experienced and one consisting of novice teachers) were formed. In addition, these two groups were formed homogenously because it is known that dynamics of the focus groups work better with homogenous samples (Dörnyei, 2007). Second, since the aim was to develop a questionnaire, the researcher paid attention to select participants with different educational levels. That is to say, two focus groups included both the teachers with only B.A. degrees and the teachers with additional degrees (i.e. M.A. or Ph.D.) in the field of English Language Teaching (ELT) or other fields related to teaching. Therefore, participants in the first focus group interview consisted of 8 experienced teachers with more than 10 years of teaching (*M*=17 years) and the participants for the second focus group interview consisted of 7 novice teachers with less than 10 years of teaching (*M*=7.2 years). More information about the participants are presented in Table 3.1 below.

Table 3.1.
Information About the Teachers Who Took Part in Focus Group Interviews

	No	Experience	B.A	M.A	Ph.D
Experienced Teachers	1	11 years	ACL	TESOL	Teaching Turkish as a Foreign Language
	2	11 years	ELL	---	---
	3	25 years	ELL	ELL	Curriculum and Instruction
	4	18 years	ELL	---	---
	5	15 years	Linguistics	ELT	---
	6	16 years	ELT	---	---
	7	17 years	ELT	---	---
	8	23 years	ELT	ELT	---
Novice Teachers	1	7 years	ETI	Radio, Cinema and TV	---
	2	8 years	ELL	ACL	---
	3	9 years	ETI	Educational Management	---
	4	8 years	ELL	---	---
	5	7 years	ELT	ELT	ELT
	6	5 years	ETI	International Relations	---
	7	7 years	ELL	---	---

***Abbreviations**: English Language Teaching: ELT; English Language and Literature: ELL; American Culture and Literature: ACL; English Translation and Interpreting: ETI*

3.3.2. Participants in Phase 2: Actual Data Collection

In the second phase of the study, the actual data were collected with the help of three instruments (i.e. TEPAQ, ELTRI, and TBS). The target population of the present study was the English language teachers who work as instructors at preparatory schools of state and foundation universities in Turkey. According to the up-to-date statistics of the Council of Higher Education at the time of data collection, there were 113 state and 66 foundation universities in Turkey. Among these, 12 state and 42 foundation universities were in İstanbul; 7 state and 11 foundation universities were in Ankara; 6 state and 2 foundation universities were in İzmir (retrieved from www.yok.gov.tr in January, 2017). Since probability (i.e. random) sampling would be quite complicated and time-consuming with such a large population, non-probability (i.e. convenience) sampling was favored in the present study. In convenience sampling, the researcher chooses the sample from those to whom she has easy access (Cohen, et al., 2000), or the researcher may select a sample based on time, money, location, availability of sites or respondents, and so on (Merriam, 2009).

Figure 3.2. Seven geographical regions of Turkey

Since Turkey has 7 geographical regions (Figure 3.2), when selecting the participants, it was made sure that instructors from all regions took part in the research in order to increase the generalizability of the results. Second, English language teachers from both foundation and state universities were asked to participate in the study. Third, the participants were selected only from the schools of foreign languages of universities in Turkey – not from the schools of Ministry of National Education (i.e. primary, secondary, or high schools). Next, since the data were collected electronically via e-mail, only the volunteering instructors participated in the study. Lastly, since one of the instruments (i.e. TEPAQ) was to be validated through Exploratory and Confirmatory Factor Analyses, at least 300 participants were aimed to be reached as a general rule of thumb for factor analyses (Tabachnick & Fidell, 1996). In addition, the confidence level and sampling error was taken into consideration when reaching the minimum number of participants. Krejcie and Morgan (1970) note that "as the population increases, the sample size increases at a diminishing rate and remains constant at slightly more than 380 cases" (p. 607). Given that the population from which the sample was drawn in the present study consisted of EFL instructors working at preparatory schools of state and foundation universities in Turkey, the actual data were collected until a minimum required number of participants answered the instruments (Table 3.2). Three-hundred and seventy-five (375) English language instructors from 36 different cities participated in the data collection of the present study. The regions and cities are shown in Figure 3.3 and the frequencies and percentages are given in Table 3.3 Further demographical information about the participants are presented in Table 3.4.

Table 3.2
Sample Size, Confidence Levels and Sampling Error

Size of total population	Size of sample population*
50	44
100	79
200	132
500	217
1.000	278
2.000	322
5.000	357
10.000	370
20.000	377
50.000	381
100.000	383
1.000.000	384

*Sampling error with a confidence level of 95% *(Krejcie & Morgan, 1970 – as cited in Cohen, et al., 2000, p. 95)*

Figure 3.3 shows that instructors from 36 cities in all 7 regions of Turkey participated in the study. As Table 3.3 shows, more than half of the instructors (67,5%) participated from İstanbul and Ankara – the two biggest metropolises of Turkey, and there were also participant instructors from small cities such as Kilis, Osmaniye, Çankırı, Aksaray, etc.

Figure 3.3. The cities and the regions (in white) where the data were collected from

Table 3.3.
Frequencies and Percentages Regarding the Cities of the Participants (N=375)

City	Frequency	Percent	City	Frequency	Percent
Adana	7	1.9%	Kastamonu	5	1.3%
Ankara	145	38.7%	Kayseri	2	0.5%
Balıkesir	4	1.1%	Kocaeli	1	0.3%
Bilecik	2	0.5%	Konya	9	2.4%
Bingöl	3	0.8%	Malatya	7	1.9%
Bitlis	2	0.5%	Rize	4	1.1%
Çanakkale	1	0.3%	Samsun	1	0.3%
Çankırı	1	0.3%	Sivas	1	0.3%
Çorum	3	0.8%	Trabzon	1	0.3%
Diyarbakır	1	0.3%	Van	2	0.5%
Elazığ	3	0.8%	Aksaray	1	0.3%
Erzurum	2	0.5%	Bayburt	2	0.5%
Eskişehir	16	4.3%	Antalya	1	0.3%
Gaziantep	8	2.1%	Karaman	2	0.5%
Giresun	2	0.5%	Bartın	2	0.5%
Afyon	4	1.15	Kilis	1	0.3%
Isparta	7	1.0%	Osmaniye	2	0.5%
İstanbul	108	28.8%	*Not Stated*	3	0.8%
İzmir	9	2.4%	**Total**	**375**	**100.0%**

As Table 3.4 shows, among 375 instructors, 21.1% were male and 77.9% were female. In terms of experience, nearly a half of the instructors had teaching experience of more than 10 years. Approximately one half of the participants had an M.A. degree, whereas about one third of them only had a B.A degree. Of all the participant instructors who took part in the study, most of them (72.8%) worked in state schools, whereas 27.2% of them worked in foundation universities.

Table 3.4.
Information about the Participants (N=375)

Gender	Male	Female	Prefer Not to Say
	79 21.1%	292 77.9%	4 1.1%
Experience	0-5 Years	5-10 Years	10+ Years
	55 14.7%	132 35.2%	188 50.1%
Level of Education	B.A.	M.A.	Ph.D.
	122 32.5%	192 51.2%	61 16.3%
Type of University	State	Foundation	
	273 72.8%	72.8 27.2	

3.4. Instruments

3.4.1. Instrument 1: Teachers' Professional Autonomy Questionnaire (TEPAQ)

As previously mentioned, since there was no tool available in the literature to gauge teachers' professional autonomy, a valid and reliable measure was constructed from scratch. As the first step, the literature on teacher autonomy was reviewed in order to come up with the related constructs to be used as prompts in the focus-group interviews and later to be used in the writing of the items for the item pool of the questionnaire.

3.4.1.1. Focus Group Interviews

The next step was to conduct the focus group interviews with two groups of instructors. Focus group interviews involve a group format (usually 4-12 participants) whereby an interviewer records the responses of a small group. In the present study, focus group interviews were favored over one-to-one interviews because as Richards (2003) states:

> Interviewing is never really an 'answer' to anything; it is a journey within a journey. This means that it should not be regarded as simply a means of confirming something already known or as definitive in itself; the approach must be as exploratory as the interview itself, and it is the responsibility of the researcher to create the best possible conditions for a successful encounter (p. 65).

Since the main aim of the focus group interview was to develop a questionnaire, two groups were created homogenously because, according to Dörnyei (2007), "dynamics of the focus group works better with homogenous samples" (p. 144). Therefore, the first focus group consisted of 7 novice instructors with less than 10 years of experience (M=7.2), whereas the second group consisted of 8 experienced instructors with more than 10 years of experience (M=17). A few days before the interviews, the participants were sent a consent letter informing them about the topic and the conduct of the interviews. In the consent letters, the main aim of the interviews, further information and necessary explanation about the topic was also presented. The participants were also informed in advance that the interviews would be conducted in English and they were going to be tape-recorded. The participants were asked to sign the consent letters if they agreed to participate.

The interviews were designed semi-structured because as Merriam (2009) explain, this format "allows the researcher to respond to the situation at hand, to the emerging worldview of the respondent, and to new ideas on the topic" (p. 90). To this end, rather than a strict guideline or a set of pre-determined questions to be asked one after another, the researcher only provided the participants with a number of concepts and key words to be discussed. These terms were taken from McGrath's (2000) concept of teacher autonomy as "self-directed professional action" and the definition of "teacher-learner" autonomy by Smith (2001) because:

(1) the concept of "teachers' professional autonomy" in this dissertation is based on these two definitions, and
(2) the items for TEPAQ would heavily depend on the data analysis of these interviews.

Therefore, in accordance with semi-structured interview protocol, the researcher used the key words from both definitions, such as "self-directed professional action", "ability", "capacity", "freedom", etc. as prompts to initiate the discussion in the focus group interviews. After the participants got involved in the discussion, the researcher functioned as a *facilitator* because as Mackey and Gass (2012) exerts, "as the purpose of an interview is to explore a topic from the interviewees' perspective, the interviewer must take care not to dominate" (p. 188). Thus, the interviewer only interrupted during the interviews to make sure that:

(1) no participant dominates the floor;
(2) all group members have a chance to express their views; and
(3) all prompts are covered.

The first interview with novice instructors lasted for 1 hours, and the second interview with experienced instructors lasted for 1 hours and 10 minutes. Both interviews took place on different days. The researcher conducted the interviews herself.

3.4.1.2. Analysis of the Focus Group Interview Data

After the interviews took place, the recordings were first transcribed. These transcriptions were then given to the participants so that they would read and approve their utterances. After their approval was received, the data analyses began. Glaser and Strauss (1967) state that there are usually two different approaches to analyzing qualitative data: (1) the researcher writes codes in the first place, and then s/he analyzes the data in accordance with these pre-defined codes; or (2) the researcher makes use of no previously determined codes, but rather s/he analyzes the data and keeps memo of the generating theories from the data.

As Glasser and Strauss (1967) further explain, there is a third way of qualitative data analysis which combines these two approaches – that is, the explicit coding procedure of the first approach and the style of theory development of the second into one: *the constant-comparison method*. The reason why this method was favored when analyzing the qualitative data coming from the focus-group interviews in the present study was that the interviews were carried out to generate the item pool to develop a quantitative questionnaire on teachers' professional autonomy. Since a multi-scale item questionnaire was going to be constructed, it would have certain categories consisting of different concepts related to teachers' professional autonomy. As stated before, the item pool for TEPAQ was created not only by using the data coming from the interviews but also by using the related concepts reviewed in literature. Thus, before analyzing the qualitative data from the interviews, the researcher (as the analyzer of the data) had already identified several codes and categories related to teachers' professional autonomy. Therefore, the researcher favored the constant-comparison method because when analyzing the qualitative data from the interviews, she made use of these already existing codes and categories related to teachers' professional autonomy in literature and she also kept memo of the emerging concepts and ideas from the data.

According to Glasser and Strauss (1967), the purpose of the constant comparative method of joint coding and analysis is "to generate theory more systematically than allowed by the second approach, by using explicit coding and analytic procedures" (p. 103). Constant-comparison method has four distinct stages: (1) comparing incidents applicable to each category; (2) integrating categories and their properties; (3) delimiting the theory; (4) and writing the theory. These stages were performed by reading the data many times until some underlying codes, categories, and themes are discovered. For example, in the literature, capacity (Stenhouse, 1975; Lamb & Simpson, 2003) and ability (Smith, 2000) were two commonly related terms to teachers' professional autonomy. However, when analyzing the data with the constant-comparison method, it was seen that the participant teachers in the focus group interviews found these two terms hard to separate from one another conceptually. Reading the data repetitively enabled the researcher to adopt a different viewpoint and to integrate these two terms into the 'capability' category since it eventually turned out to be an umbrella term encompassing the both terms (i.e. capacity and ability). This categorization process was made possible with the constant-comparison method by continuously going over the data until certain categories emerged. As Stake (2010) agrees, qualitative research is iterative, using a non-linear, "zigzag" pattern, in which the analyst moves back and forth depending on the emergent results.

3.4.1.3. Writing the Item Pool

The item pool for TEPAQ was written both with the categories and concepts suggested in the literature and with the ideas and theories emerging from the interview data. To give an example, since teachers' professional autonomy is related to Smith's (2001) definition of teacher-learner autonomy, categories such as ability and freedom were taken from the literature and a number of items under these categories were written by the researcher. Items such as "*I am able develop myself professionally*" or "*I have opportunities to continue my own development as a teacher*" were among the items written by the researcher for the categories of capability and freedom, respectively. As for the qualitative data coming from the interviews, some items were written under the newly-emerging concepts such as time, finance, or responsibility. Items such as "*My workload is too heavy to do any professional development activities*", "*I would attend professional development activities, like conferences or seminars if they were free of charge*" or "*I feel obliged to continue my development as a teacher*" were written to measure such concepts as time, finance, and responsibility, respectively. In addition, some of the items were written as direct quotations from the utterances of participant instructors. For example, "*I cannot do any professional development activities because of my workload*", or "*I wish there were more professional* *development events in my institution*” were included in the item pool under the categories of freedom and willingness, respectively. After this rigorous process, the first item pool for TEPAQ was constructed with 41 items written under 5 categories, namely ability, capacity, willingness, responsibility, and freedom. The items were based on a five-point Likert scale. The responses varied from 1 to 5: (1 for “strongly disagree”, 2 for “disagree”, 3 for “neutral”, 4 for “agree”, and 5 for “strongly agree”).

3.4.1.4. Validity of TEPAQ

Since TEPAQ is an instrument which was constructed from scratch, it went through several phases in order to establish its construct validity and content validity.

3.4.1.4.1. Content Validity

According to Mackey and Gass (2005), content validity refers to “the representativeness of a measurement regarding the phenomenon about which we want information” (p. 107). In other words, content validity questions whether a tool measures what it is supposed to measure. As Hatch and Lazaraton (1991) explain:

> The key elements in the judgment of content validity are representativeness and comprehensiveness. There is no statistical measurement of content validity. Rather, panels of experts may be asked to rate the representativeness and comprehensiveness of each part of a test (p. 540).

To this end, first of all, as the expert who coined the term “teacher-learner autonomy”, Dr. Richard Smith was asked (via email) to examine TEPAQ personally and two months later, the researcher arranged a meeting with him in order to further discuss the items of the instrument face-to-face in detail. This meeting lasted about 40 minutes, and Dr. Smith went over every item one by one. In accordance with his feedback, 23 more items were added to the questionnaire, and the factors were reduced to 3, namely capability, motivation, and freedom. Next, this version of TEPAQ was subject to a further review in two separate dissertation committee meetings where all of the items were examined by 3 jury members, who are highly-respected professionals in the field. After editing TEPAQ accordingly, the final version consisted of 4 factors with 39 items, namely capability, sense of responsibility, willingness, and opportunities and threats. Getting expert feedback several times on several occasions from several professionals, making required changes and finally reaching this very last version of TEPAQ took about one year. Moreover, in addition to increasing the content validity of the questionnaire, this final version of TEPAQ was further piloted in person with 12 EFL teachers from the target population because as Gorard (2003) explain, piloting the questionnaire face-to-face with a few people from the intended population and asking for their comments and criticisms is vitally important before gathering the main data. This piloting process resulted in only a number of minor changes in the wordings of some items. The final version of TEPAQ is presented in Table 3.5.

3.4.1.4.2. Construct Validity

According to Cohen, et al., (2000), construct validity questions whether one's understanding of a construct similar to that which is generally accepted to be the construct and it can be achieved through correlations with other measures of the issue or by rooting one's construction in a wide literature search which teases out the meaning of a particular construct (i.e. a theory of what that construct is) and its constituent elements (p. 110). For construct validity, as the name implies, the articulation of the construct is important. For this reason, the item pool of the instrument was not only based on a wide literature search, but also on teachers' common ideas about the construct itself. In other words, the 15 instructors who participated in the focus group interviews ensured the construct validity of the instrument because their ideas – on which the items were based – constituted a generally accepted understanding of the term "teachers' professional autonomy". Therefore, it can be argued that the construct validity of TEPAQ was ensured in its preliminary construction phase as the ideas behind the items of this instrument were rooted in the concepts in the literature and in teachers' own ideas.

3.4.1.4.3. Exploratory Factor Analysis (EFA)

As the second step, the construct validity of TEPAQ was ensured via EFA. Through EFA, variables that are correlated with one another but largely independent of other subsets of variables are combined into factors (Tabachnick & Fidell, 1996). The purpose of using EFA in this study is: (1) to understand the structure of a set of variables; (2) to construct a questionnaire to measure an underlying variable; and (3) to reduce a data set to a more manageable size while retaining as much of the original information as possible (Field, 2009). With this aim, TEPAQ was put to EFA analysis.

Table 3.5.

The Final Version of TEPAQ

Construct: Capability	
1.	I am able to search out information about teaching.
2.	I am able to use technology to develop my teaching.
3.	I can create time for my professional development.
4.	I have the ability to develop my teaching.
5.	I can make use of my students' feedback to develop my teaching.
6.	I can work with my colleagues to develop my teaching.
7.	I am able to manage my professional development.
8.	I am able to identify my weaknesses/strengths as a teacher.
9.	I can motivate myself to develop my teaching.
10.	I can adapt to recent developments in teaching.
11.	I can find profession-related materials (i.e. books, journals, etc.) about teaching.
12.	I am able to keep continuing my professional development as a teacher.
Construct: Sense of Responsibility & Obligation & Drives & Motives	
13.	I want to develop myself professionally because I feel I have to.
14.	I want to develop myself professionally to better my financial condition.
15.	I want to develop myself professionally for a chance of getting promoted to a better position.
16.	I want to develop myself professionally because my institution asks me to do so.
17.	I feel obliged to continue my development as a teacher.
18.	The desire to develop myself professionally is dependent on who my students are.
19.	The problems in my personal life reduce my desire to develop professionally.
20.	The desire to develop myself professionally is dependent on whether my efforts are praised by the institution I work in.
21.	I want to develop professionally because it is a necessity to meet the needs of students.
Construct: Willingness	
22.	It is my own wish to continue my professional development.
23.	I want to develop myself professionally in order to push the limits of my abilities as a teacher.
24.	I constantly look for ways to develop my teaching.
25.	I like to learn from my colleagues to develop my teaching.
26.	I like to learn from my students to develop my teaching.
27.	I want to develop professionally to meet the needs of my students.
28.	I enjoy developing myself professionally.
29.	I am curious about new ways to develop my teaching.

Construct: Opportunities & Threats	
30.	My workload is too heavy to engage in activities to develop myself as a teacher. (time)
31.	I find very little time outside the school for professional development activities. (time)
32.	If my working hours were shorter, I would do more professional development activities. (time)
33.	My financial situation allows me to spend money for my professional development activities. (finance)
34.	I find professional development activities, like conferences or seminars, too costly to attend. (finance)
35.	I have access to technology to continue my development as a teacher. (sources)
36.	I have enough opportunities to develop myself professionally. (sources)
37.	I lack resources to keep on learning how to be a better teacher. (sources)
38.	I have difficulty finding useful materials about teaching. (sources)
39.	I have colleagues whom I can consult when I need help about my professional development. (sources)

In order to discriminate between factors, Varimax rotation was used. As explained by Tabachnick and Fidell (2001), Varimax is a “variance maximizing” procedure, and it aims to maximize the variance of factor loadings by making high loadings higher and low ones lower for each factor (p. 620). Among other types of rotations, Varimax rotation was utilized in the EFA analysis of the present study as it the most commonly used type of rotation (Tabachnick & Fidell, 2001) and it results in more interpretable clusters of factors (Field, 2009). With the Varimax rotation, the number of factors is determined with the Kaiser criteria (Kaiser, 1960) which retain factors whose eigenvalues are greater than 1. As Field (2009) explain, Kaiser criterion is based on the idea that the eigenvalues represent the amount of variation explained by a factor and that an eigenvalue of 1 represents a substantial amount of variation (p. 640).

Two methods are also used to see whether the data are suitable for the factor analysis (FA), namely Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett’s Test of Sphericity. KMO value takes a value between 0 and 1, and values closer values to 1 indicate better fit of the data, whereas values lower than 0.5 should not be used for FA (Cerny & Kaiser, 1977). Bartlett’s Test of Sphericity is used for validating the assumption of identity correlation matrix, and significance value lower than 0.05 indicates that the correlation matrix is not an identity matrix and suitable for FA. The KMO and Bartlett’s Test of Sphericity values for TEPAQ are presented in Table 3.6.

Table 3.6.
KMO and Barlett's Test for TEPAQ

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy		.86
Bartlett's Test of Sphericity	Approx. Chi-Square	4651.306
	df	406
	Sig.	.00

For TEPAQ, the KMO measure of sampling adequacy was .86, and Barlett's Test of Sphericity was found to be statistically significant at $\chi2(406) = 4651.306$, $p<.00$, which shows that TEPAQ was suitable for FA. The results of the EFA showed that 10 items could not survive the EFA (Table 3.7).

Table 3.7.
Ten items which could not survive the EFA

Construct	Items
Capability	• I can make use of my students' feedback to develop my teaching. • I am able to manage my professional development. • I can motivate myself to develop my teaching. • I am able to keep continuing my professional development as a teacher.
Sense of Responsibility & Obligation & Drives & Motives	• The desire to develop myself professionally is dependent on who my students are. • The problems in my personal life reduce my desire to develop professionally.
Willingness	• I like to learn from my students to develop my teaching.
Opportunities & Threats	• My financial situation allows me to spend money for my professional development activities. (finance) • I find professional development activities, like conferences or seminars, too costly to attend. (finance) • I have enough opportunities to develop myself professionally. (sources)

There might be a number of reasons why these items failed to survive the FA:

(1) the wordings of the items were unclear to the participants:

- *I am able to manage my professional development*

(2) some items were ambiguous:

- *I am able to keep continuing my professional development as a teacher*
- *I can motivate myself to develop my teaching*

(3) the participant teachers could not associate their professional learning with students:

- *I like to learn from my students to develop my teaching*
- *I can make use of my students' feedback to develop my teaching*
- *The desire to develop myself professionally is dependent on who my students are*

(4) the participant teachers could not find any connection between their personal lives and their professional autonomy:

- *The problems in my personal life reduce my desire to develop professionally*

(5) their financial situation did not seem to affect their professional autonomy:

- *My financial situation allows me to spend money for my professional development activities*
- *I find professional development activities, like conferences or seminars, too costly to attend*

(6) The item failed to distinguish between the participants since all the participant teachers might have agreed with this statement:

- *I have enough opportunities to develop myself professionally*

For the remaining 29 items, the data analysis revealed a 5 factor solution. In the 5 factor solution for TEPAQ, 56% of the sample variance was accounted for by the 29 items. In the field of social sciences, 55% of the variance and above is commonly regarded as an acceptable percentage (Dunteman, 1989; Netemeyer, Bearden, & Sharma, 2003).

When the items were analyzed, it was observed that the items were grouped together under a number of factors which were slightly different than the previous ones. For example, items which had belonged to the willingness and responsibility factors were categorized under two different factors, namely 'Internal Drives and Motives' and 'External Drives and Motives'. Moreover, 3 items which belonged to different factors, namely willingness, i.e. "*I like to learn from my colleagues to develop my teaching*"; resources i.e. "*I have colleagues whom I can consult when I need help about my professional development*"; and capability i.e. "*I can work with my colleagues to develop my teaching*" were grouped under the same category by the EFA. Therefore, the 'Collaboration with Colleagues' factor emerged. Similarly, 4 items which belonged to different factors, such as capability i.e. "*I can create time for my professional development*"; and opportunities and threats "*My workload is too heavy to engage in activities to develop myself as a teacher*" were grouped under the same category by the EFA. Therefore, the 'Time Management' factor emerged. The items and their factor loadings are shown in Table 3.8 below.

Table 3.8.
Factor Loadings of TEPAQ

	Component				
Factor 1: Internal Drives & Motives	1	2	3	4	5
1. I want to develop myself professionally because I feel I have to.	.690				
2. It is my own wish to continue my professional development.	.575				
3. I am curious about new ways to develop my teaching.	.760				
4. I want to develop professionally because it is a necessity to meet the needs of students.	.766				
5. I enjoy developing myself professionally.	.710				
6. I feel obliged to continue my development as a teacher.	.613				
7. I constantly look for ways to develop my teaching.	.756				
8. I want to develop professionally to meet the needs of my students.	.805				
9. I want to develop myself professionally in order to push the limits of my abilities as a teacher.	.712				
Factor 2: Capability					
10. I am able to search out information about teaching.		.650			
11. I can find profession-related materials (i.e. books, journals, etc.) about teaching.		.683			
12. I have the ability to develop my teaching.		.676			

13. I am able to identify my weaknesses/strengths as a teacher.	.568			
14. I am able to use technology to develop my teaching.	.702			
15. I can adapt to recent developments in teaching.	.663			
16. I have difficulty finding useful materials about teaching.	-.564			
17. I have access to technology to continue my development as a teacher.	.659			
18. I lack resources to keep on learning how to be a better teacher.	-.520			
Factor 3: Collaboration with Colleagues				
19. I can work with my colleagues to develop my teaching.			.828	
20. I like to learn from my colleagues to develop my teaching.			.790	
21. I have colleagues whom I can consult when I need help about my professional development.			.851	
Factor 4: Time Management				
22. I can create time for my professional development.		-.508		
23. If my working hours were shorter, I would do more professional development activities.		.743		
24. My workload is too heavy to engage in activities to develop myself as a teacher.		.806		
25. I find very little time outside the school for professional development activities.		.803		
Factor 5: External Drives & Motives				
26. I want to develop myself professionally to better my financial condition.				.778
27. The desire to develop myself professionally is dependent on whether my efforts are praised by the institution I work in.				.545
28. I want to develop myself professionally because my institution asks me to do so.				.550
29. I want to develop myself professionally for a chance of getting promoted to a better position.				.803

3.4.1.5. Reliability of TEPAQ

To ensure its reliability, the Cronbach's alpha (α) values of TEPAQ were analyzed. It is agreed in the literature that Cronbach's alpha is a common method to determine the internal consistency of a data collection tool (Hatch & Lazaraton, 1991; Mackey & Gass, 2005). In particular, as Cortina (1993) states, coefficient alpha is useful for estimating reliability for item-specific variance in a unidimensional test. To be more precise, it is useful once the existence of a single factor or construct has been determined (cited from Drost, 2011, p. 112). Cronbach alpha coefficients of 29 items and 5 factors in TEPAQ were analyzed and the results are discussed below.

Table 3.9.
Cronbach Alpha Coefficients for Factor 1 in TEPAQ

Factor 1: Internal Drives & Motives				
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	34.07	27.316	.596	.883
2	33.66	29.803	.543	.885
3	33.79	28.067	.701	.873
4	33.78	27.619	.705	.873
5	33.64	28.867	.683	.876
6	34.31	27.625	.525	.891
7	34.16	26.978	.734	.870
8	33.93	27.364	.734	.870
9	34.05	27.642	.658	.876
Factor Total for 9 items				.890

Cronbach's α value for Factor 1 is found to be .890, which is very high, and as Table 3.9 shows, the reliability value does not increase greatly when an item is deleted.

Table 3.10.
Cronbach Alpha Coefficients for Factor 2 in TEPAQ

Factor 2: Capability				
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
10	30.10	8.702	.411	.381
11	30.38	8.285	.343	.385
12	30.17	8.552	.501	.361
13	30.45	8.446	.418	.370
14	30.44	7.888	.481	.335
15	30.60	7.882	.463	.339
16	32.42	11.758	-.300	.648
17	30.40	8.086	.449	.350
18	32.38	11.514	-.270	.638
Factor Total for 9 items				.471

For Factor 2, Cronbach's α value is low with .471, but the reliability value is expected to increase if items 16 and 18 are deleted.

Table 3.11.
Cronbach Alpha Coefficients Recalculated for Factor 2 in TEPAQ

Factor 2: Capability				
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
10	25.56	10.808	.563	.807
11	25.85	9.817	.578	.804
12	25.63	10.815	.614	.801
13	25.91	10.896	.470	.820
14	25.90	9.916	.609	.798
15	26.07	9.897	.591	.801
17	25.87	9.988	.613	.797
Factor Total for 7 items				.827

After deleting the items 16 and 18, Cronbach's α value reached up to .827, which is very high, and as the analysis shows, reliability value does not increase further when an item is deleted.

Table 3.12.
Cronbach Alpha Coefficients for Factor 3 in TEPAQ

Factor 3: Collaboration				
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
19	7.71	3.643	.780	.756
20	7.76	3.837	.715	.815
21	7.80	3.319	.708	.830
Factor Total for 3 items				.857

For Factor 3, Cronbach's α value is .857 which is very high, and reliability value does not increase greatly if an item is deleted.

Table 3.13
Cronbach Alpha Coefficients for Factor 4 in TEPAQ

Factor 4: Time Management				
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
22	10.77	7.681	-.362	.745
23	10.18	3.229	.498	-.163[a]
24	10.68	3.560	.424	-.035[a]
25	10.75	3.827	.382	.037
Factor Total for 4 items				.347

Cronbach's α value for Factor 4 is found to be .471 which is low, but the reliability value is expected to increase if the item 22 is deleted.

Table 3.14.
Cronbach Alpha Coefficients recalculated for Factor 4 in TEPAQ

Factor 4: Time Management				
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
23	6.82	3.816	.550	.688
24	7.32	3.742	.600	.627
25	7.39	3.988	.566	.668
Factor Total for 3 items				.745

After the item 22 is eliminated, Cronbach's α value increased to .745 which is considered high, and the analysis shows that reliability value is not expected to increase any further when another item is deleted.

Table 3.15.
Cronbach Alpha Coefficients for Factor 5 in TEPAQ

Factor 5: External Drives and Motives				
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
26	8.17	6.889	.498	.504
27	8.26	7.934	.302	.642
28	8.80	7.975	.343	.613
29	8.15	6.324	.525	.477
Factor Total for 4 items				.635

As Table 15 shows, Cronbach's α value for Factor 5 is found to be .635 which is relatively low, but the reliability value is expected to increase if the item 27 is deleted.

Table 3.16.
Cronbach Alpha Coefficients Recalculated for Factor 5 in TEPAQ

Factor 5: External Drives and Motives				
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
26	5.30	3.895	.535	.427
28	5.93	5.088	.292	.739
29	5.29	3.488	.551	.393
Factor Total for 3 items				.642

After the item 27 is deleted Cronbach's α value reached 0.642 which is adequate, but the reliability value can still increase when item 28 is deleted.

Table 3.17.
Cronbach Alpha Coefficients Recalculated for Factor 5 in TEPAQ

Factor 5: External Drives and Motives				
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
26	2,97	1,734	.588	.
29	2,96	1,474	.588	.
Factor Total for 2 items				.739

After deleting the item 28, Cronbach' α value increased up to 0.739 which is very high, and reliability value does not increase further when an item is deleted.

In summary, in accordance with the EFA results, 5 items (i.e. 16, 18, 22, 27, and 28) are discarded from the instrument. The reliability analysis of TEPAQ resulted with 5 factors and 24 items which are summarized in Table 3.18 below. The overall reliability coefficient of TEPAQ is found to be very high.

Table 3.18.
Cronbach Alpha Coefficients for 5 Factors in TEPAQ

		Items	Cronbach's α
Factor 1	Internal Drives and Motives	1-2-3-4-5-6-7-8-9	.890
Factor 2	Capability	10-11-12-13-14-15-17	.827
Factor 3	Collaboration with Colleagues	19-20-21	.857
Factor 4	Time Management	23-24-25	.745
Factor 5	External Drives and Motives	26-29	.739

3.4.1.6. Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA) is a version of factor analysis in which specific hypotheses about structure and relations between the latent variables that underlie the data are tested (Field, 2009). Since TEPAQ was a newly constructed instrument, after conducting EFA and reliability analysis, CFA was applied to the remaining 24 items of the instrument in order to check whether the model established through EFA is also consistent with the one found in CFA. To put in a different way, CFA confirms if the data fits to the initially established model in EFA. How 'good' the data fit is determined by the 'goodness of fit' to the model. As Field (2009) explains, goodness of fit is based on how well the data predicted by the model correspond to the data that were actually collected. In order to assess the goodness of fit, there are many ways suggested in the literature. The most fundamental one of these is the Chi-Square ($\chi 2$) significance level. It is commonly agreed in the literature that a good fit is indicated by a nonsignificant "$\chi 2$" (Kelloway, 1998; Tabachnick & Fidell, 2001). However, $\chi 2$ value is sensitive to the sample size, and it has a tendency to indicate a significant level when the sample size increases generally above 200 (Schumacker & Lomax, 1996). Therefore, to reduce the sensitivity of $\chi 2$ to the sample size, a good-fitting model is usually indicated with the ratio of the $\chi 2$ to the degrees of freedom (*df*). If this ratio (i.e. $\chi 2$/df) is less than 2 as suggested by Tabachnick and Fidell (2001), or less than 3 as suggested by Kline (2005), then it is established that the model has a good (or perfect) fit. In addition to the ratio of Chi-Square to degrees of freedom, there are also other goodness of fit indices suggested in the literature which are presented in Table 3.19.

Table 3.19.
Goodness of Fit Indices Suggested in Bryne (2001)

Indices	Abbreviations
$\chi2$/df	CMIN/DF
Root-Mean-Square Residual Index	RMR
Goodness-of-Fit Index	GFI
Adjusted Goodness-of-Fit Index	AGFI
Parsimony-adjusted GFI	PGFI
Normed Fit Index	NFI
Comparative Fit Index	CFI
Relative Fit Index	RFI
Incremental Fit Index	IFI
Tucker-Lewis Index	TLI
Parsimony ratio	PRATIO
Parsimony-adjusted NFI	PNFI
Parsimony-adjusted CFI	PCFI
Root Mean Square Error of Approximation	RMSEA
Hoelter Index	HOELTER

Byrne, B. M. (2001). Structural equation modeling with AMOS, EQS, and LISREL: Comparative approaches to testing for the factorial validity of a measuring instrument. *International Journal of Testing, 1*(1), 55-86.

To assess model fit, these indices are usually reported selectively in research studies in social science. In particular, the studies in which a newly developed instrument is validated via CFA analyses commonly report $\chi2/df$ ratio, RMSEA, and CFI values. In their study in which they validated the Teacher Autonomy Scale, Pearson and Moomaw (2006), for instance, only used $\chi2$, *df*, CFI, ECVI (Expected Cross-validation Index) and RMSEA values in their CFA analysis. When validating ELTRI in their study, Akbari et al., (2010) reported absolute fit indices (i.e. $\chi2/df$, GFI, AGFI, RMSEA) along with incremental fit indices (i.e. IFI, TLI, CFI) as they provided evidence for their newly-developed instrument. Bostancıoğlu and Handley (2018) also developed a questionnaire to evaluate teachers' Technological Pedagogical Content Knowledge (TPACK) for English as a Foreign Language (EFL), and in order to validate their model, they reported $\chi2/df$, CFI, TLI, RMSEA, and SRMR values for CFA. Lastly, in their study in which they validated Maslach Burnout Inventory, Schaufeli, Salanova, González-Romá and Bakker (2001) reported $\chi2/df$, CFI, NFI, NNFI, GFI AGFI, and RMSEA values to indicate the model fit. As it is clear from these studies, when validating a newly developed instrument with CFA, a selective approach for goodness of fit indices is adopted by the researchers.

Therefore, in the present study, in addition to the $\chi2/df$ ratio, which is the most preliminary goodness of fit indicator (Kline, 2005; Tabachnick & Fidell, 2001), absolute fit indices, namely GFI, AGFI, and RMSEA, along with incremental fit indices, namely i.e. IFI, TLI, CFI, were reported in CFA analyses in in line with those in Akbari et al., (2010). It is agreed in the literature that since there is not a single universally accepted criterion for assessing the model fit (Schumacker & Lomax, 1996), the simultaneous use of these indices is essential (Heubeck & Neill, 2000).

Table 3.20 below shows the most commonly accepted threshold values for these goodness of fit indices and the sources of these suggested values. For the GFI, AGFI, and NFI indices, for example, values greater than .85 or .90 are typically considered acceptable and values greater that .95 indicate good fit to the data (Bollen, 1989; Byrne, 2001; Hu & Bentler, 1999). For well specified models, an RMSEA of .06 or less reflect a good fit (Hu & Bentler, 1999), and a value below .08 indicates a reasonable fit (Browne & Cudeck, 1993). For the $\chi2/df$ ratio values of less than 3 are considered adequate (Kline, 1998). Table 3.20 below shows the good and acceptable goodness of fit values suggested in the literature.

Table 3.20.
Threshold values for goodness of fit indices suggested in the literature

Model Fit Indices	Value	Meaning	Source
CMIN/DF	≤ 2	Perfect fit to the data	(Tabachnick & Fidell, 2001)
(i.e. $\chi2/df$)	≤ 3	Perfect fit to the data	(Kline, 2005)
GFI	$\leq .95$	Perfect fit to the data	(Schumacker & Lomax, 2004; Hooper, Coghlan & Mullen, 2008)
	$\leq .90$	Good fit to the data	(Hu & Bentler, 1995; Hooper, Coghlan & Mullen, 2008)
AGFI	$\leq .95$	Perfect fit to the data	(Schumacker & Lomax, 2004; Hooper, et al., 2008)
	$\leq .85$	Good fit to the data	(Sharma, 1996)
RMSEA	$\leq .50$	Perfect fit to the data	(Kline 2005; Jöreskog & Sörbom, 1993)
	$\leq .60$	Good fit to the data	(Hu & Bentler, 1999)
	$\leq .80$	Good fit to the data	(Browne and Cudeck, 1993)
	$\leq .100$	Acceptable fit to the data	(Weston & Gore, 2006)
TLI	$\leq .90$	Good fit to the data	(Tabachnick & Fidell, 2001)
IFI	$\leq .90$	Good fit to the data	(Bollen, 1989)
CFI	$\leq .95$	Perfect fit to the data	(Bollen, 1989; Byrne, 2001; Hu & Bentler, 1999)
	$\leq .90$	Good fit to the data	(Brown, 2006)

In the present study, goodness of fit indices for TEPAQ are reported in accordance with those reported for ELTRI in Akbari et al., (2010). Therefore, in addition to Chi-Square and degrees of freedom ratio (i.e. $\chi2/df$), absolute fit indices (i.e. GFI, AGFI, and RMSEA) and incremental fit indices (i.e. TLI, IFI, CFI) are reported for TEPAQ. The initial CFA analysis for TEPAQ showed that item 23 had a low regression weight and so it was removed to improve the model fit. The remaining 23 item-5 factor model achieved satisfactory goodness of fit indices for CFA model. As the results presented in Table 3.21 show, the model had a good fit to the data with a $\chi2/df$ ratio of 2.26, which is adequate on the basis of Kline's (2005) rule of values of less than 3 being considered adequate. The GFI and AGFI values of .90 and .87 are accepted as good fit to the data by Hu and Bentler (1995) and Sharma (1996), respectively. Other incremental fit indices, namely TLI, IFI, and CFI are all above .90, which is also accepted as good fit to the data by Tabachnick and Fidell (2001) and Bryne (2001). Overall, these results indicated that the newly developed TEPAQ had a good fit to the established EFA model and therefore validated with 5 factor and 23 items. The validated CFA model of TEPAQ is presented in Figure 3.4.

Table 3.21.
Absolute and Incremental Fit Indices of TEPAQ for CFA Model

Absolute Fit Indices				Incremental Fit Indices		
($\chi2/df$)	GFI	AGFI	RMSEA	TLI	IFI	CFI
2.26	.90	.87	.58	.91	.92	.92

$\chi2/df$= Chi-square/Degrees of freedom ratio; GFI= Goodness-of-Fit Index; AGFI= Adjusted Goodness-of-Fit Index; RMSEA= Root Mean Square Error of Approximation; TLI= Tucker-Lewis Index; IFI= Incremental Fit Index; CFI= Comparative Fit Index

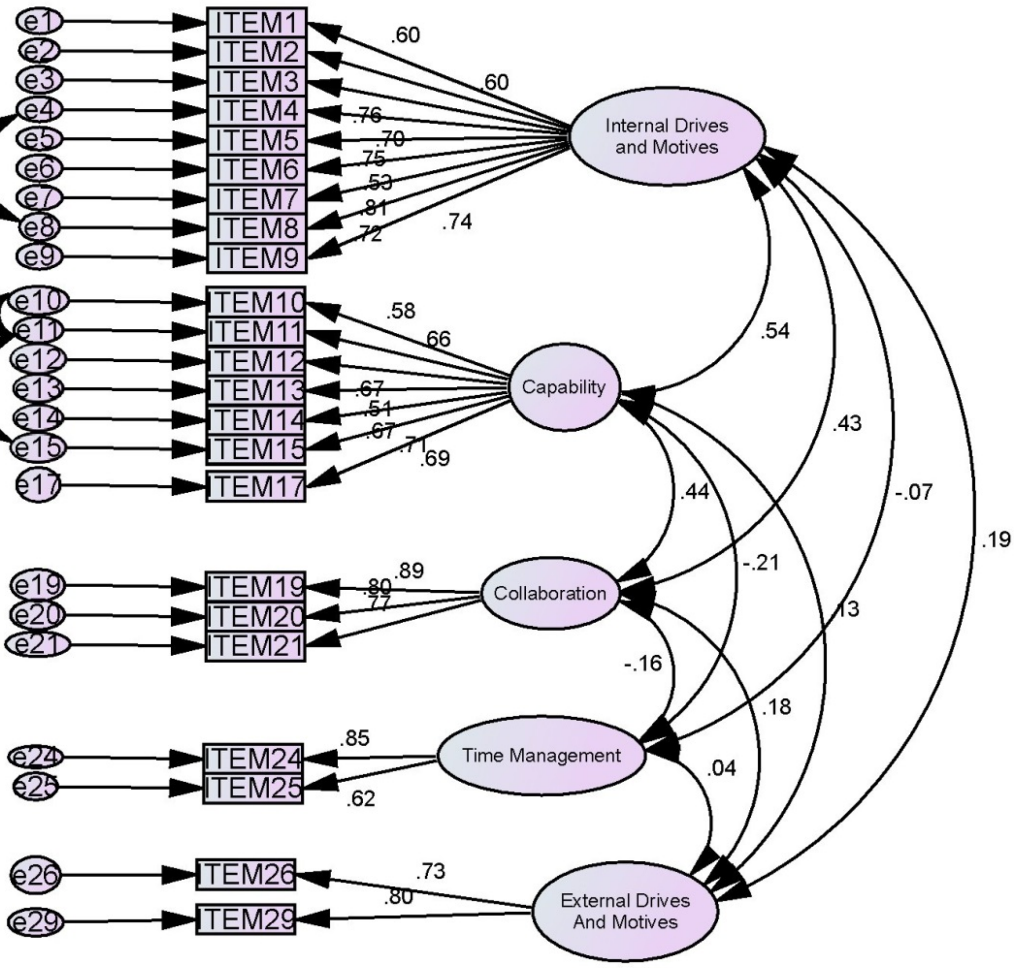

Figure 3.4. CFA model of TEPAQ

3.4.2. Instrument 2: English Language Teacher Reflection Inventory (ELTRI)

Reflective practices of the participant teachers were measured with "English Language Teacher Reflection Inventory" (ELTRI), which was originally devised by Akbari et al., (2010). In their study, their purpose was first to come up with a model of teacher reflection in applied linguistics and second to design an instrument to allow for the quantification of the construct and consequently, its empirical investigation. To this end, they first carried out a review of literature in order to come up with 'categories' and 'behaviors' related to reflective practice. What these categories and behaviors refer to is explained by Akbari et al., (2010) as the following:

> The term 'categories' here is used to refer to those ideas that were still general and not formulated as an actual instance of behavior by the teachers. For example, Ward and McCotter (2004) refer to a reflective practitioner as someone who focuses on teaching tasks such as management and planning. This was viewed as an example of category since it did not require the teacher to engage in any specific, classroom based teaching behavior. […] In contrast, the idea of keeping a journal and writing about one's teaching experiences was an example of 'behavior' since it represented an instance of reflection on one's actual course of pedagogical practice (p. 213).

As Akbari et al., (2010) further explain, they analyzed these initially formulated categories for overlaps and repetitions, and the existing categories were translated into actual instances of reflective behavior, and the items were written accordingly. The items were based on a five-point Likert scale. The responses varied from 1 to 5 (1 for "never", 2 for "rarely", 3 for "sometimes", 4 for "often", and 5 for "always"). Table 3.22 presents a list of the proposed components, their definitions, sample item(s) for each component, and the references that justify the components' inclusion in the model.

Table 3.22.
The Tentative Model of ELTRI, its Components, Definitions, and Items

Components and Definitions	Items
Practical: *Actual act of reflection by using different tools, such as keeping journals, talking to colleagues*	1. I write about my teaching experiences in a diary or a notebook. 2. I have a file where I keep my accounts of my teaching for reviewing purposes. 3. I talk about my classroom experiences with my colleagues and seek their advice/feedback. 4. After each lesson, I write about the accomplishments/failures of that lesson or I talk about the lesson to a colleague. 5. I discuss practical/theoretical issues with my colleagues. 6. I observe other teachers' classrooms to learn about their efficient practices. 7. I ask my peers to observe my teaching and comment on my teaching performance.
Cognitive: *Conscious efforts for professional development by attending conferences and reading professional books and journals*	8. I think of using/introducing new teaching techniques in my classes. 9. I read books/articles related to effective teaching to improve my classroom performance. 10. I participate in workshops/conferences related to teaching/learning issues. 11. I think of writing articles based on my classroom experiences. 12. I look at journal articles or search the internet to see what the recent developments in my profession are. 13. I carry out small scale research activities in my classes to become better informed of learning/teaching processes. 14. I think of classroom events as potential research topics and think of finding a method for investigating them.
Affective:	15. I think about my students' emotional responses to my instructions. 16. When a student is having an emotional problem or is neglected by his/her peers, I try to spend more time with him/her.

Deals with knowledge of learners and their affective/cognitive states	17. Before and after teaching, I think about aspects of my lessons my students liked/disliked. 18. I ask my students to write/talk about their perceptions of my classes and the things they liked/disliked about it. 19. I talk to my students to learn about their learning styles and preferences. 20. I talk to my students to learn about their family backgrounds, hobbies, interests and abilities. 21. I ask my students whether they like a teaching task or not.
Meta-Cognitive: *Deals with teachers' knowledge of their personality, their definition of learning and teaching, their view of their profession*	22. As a teacher, I think about my teaching philosophy and the way it is affecting my teaching. 23. I think of the ways my biography or my background affects the way I define myself as a teacher. 24. I think of the meaning or significance of my job as a teacher. 25. I try to find out which aspects of my teaching provide me with a sense of satisfaction. 26. I think about my strengths and weaknesses as a teacher. 27. I think of the positive/negative role models I have had as a student and the way they have affected me in my practice. 28. I think of inconsistencies and contradictions that occur in my classroom practice.
Critical: *Deals with the socio-political dimension of teaching*	29. I think about instances of social injustice in my own surroundings and try to discuss them in my classes. 30. I think of ways to enable my students to change their social lives in fighting poverty, discrimination, and gender bias. 31. In my teaching, I include less-discussed topics, such as old age, AIDS, discrimination against women and minorities, and poverty. 32. I think about the political aspects of my teaching and the way I may affect my students' political views. 33. I think of ways through which I can promote tolerance and democracy in my classes and in the society in general. 34. I think about the ways gender, social class, and race influence my students' achievements. 35. I think of outside social events that can influence my teaching inside the class.
Moral: *Deals with issues of justice, empathy, and values*	36. I think of my job as showing care and sympathy to others. 37. I regard myself as a role model for my students and as a result try to act as a moral example. 38. I believe in the concept of justice and try to show it in my classroom practice. 39. I talk about my moral standards and values to my students. 40. I establish a clear set of rules for my students to follow in terms of their classroom attendance and the way they will be evaluated at the end of the course. 41. I provide equal opportunities for all my students in the class regardless of their capabilities. 42. I have a clear set of general class rules and what constitutes acceptable behavior for my students to follow.

Akbari, R., Behzadpoor, F., & Dadvand, B. (2010). Development of English Language Teaching Reflection Inventory. *System, 38,* 211-227.

As the next step, Akbari et al., (2010) validated ELTRI with 308 instruments collected from practicing English teachers at different institutes, schools, and centers of higher education in Tehran and six other provinces of Iran. Cronbach's alpha estimates for the indicators of Practical, Affective, Critical, Meta-Cognitive, Moral, and Cognitive were calculated and turned out to be .73, .78, .84, .82, .67, and .83 respectively. However, EFA and CFA resulted in the omission of 4 items in the Learner (Affective) component, 1 item in the Practical component, and the entire Mortality component – leaving the researchers with a questionnaire of 5 components with 29 items.

Yeşilbursa (2013) carried out a study to examine the construct validity of ELTRI in the Turkish higher education context. To this end, she collected data from 173 voluntary EFL teachers at the schools of foreign languages of two large state universities in Ankara, and the departments of Basic English of two medium-sized state universities in the Western Black Sea region of Turkey. Following Akbari et al., (2010), Yeşilbursa (2013) also carried out EFA and CFA with the initial model of ELTRI. The results indicated that the Cronbach Alpha coefficients for the Meta-cognitive, Practical, Cognitive, Critical and Moral factors and the total factors were calculated and found to be .88, .81, .88, .74, .73 and .89 respectively. However, similar to those found by Akbari et al., (2010), the morality component was not validated. In addition, none of the items of the Learner (Affective) factor of the tentative model loaded under a single distinct factor. Moreover, 4 items in the Practical component, 1 item in the Cognitive component, 1 item in the Meta-Cognitive component, and 1 item in the Critical component could not also survive the factor analyses – leaving the researcher with a questionnaire of 4 components with 21 items (Table 3.23).

In this dissertation, in order to collect data to measure teachers' reflective practices, the 4 factor-21 item ELTRI model validated by Yeşilbursa (2013) was used instead of the 5 factor-29 item ELTRI model validated by Akbari et al., (2010). There were two reasons for this choice. First, since the data were going to be collected via three consecutive instruments, the shortness of the data collection tools was of utmost importance because as Cohen et al., (2000) agree, long instruments might constitute a threat for the validity of the study. Second, the fact that Yeşilbursa (2013) validated ELTRI with a sample of Turkish EFL teachers working as instructors at the preparatory schools of state universities in Turkey would enhance the validity of the data collected for the present study because the sample of the present study was also going to be drawn from the same target population, namely Turkish EFL teachers working as instructors at the preparatory schools of state and foundation universities in Turkey.

Table 3.23.
ELTRI Used in the Data Collection Phase of the Present Study (validated by Yeşilbursa, 2013)

Components	Items
Practical:	1. I write about my teaching experiences in a diary or a notebook. 2. I ask my peers to observe my teaching and comment on my teaching performance. 3. I observe other teachers' classrooms to learn about their efficient practices.
Cognitive:	4. I think of using/introducing new teaching techniques in my classes. 5. I participate in workshops/conferences related to teaching/learning issues. 6. I read books/articles related to effective teaching to improve my classroom performance. 7. I look at journal articles or search the internet to see what the recent developments in my profession are. 8. I think of writing articles based on my classroom experiences. 9. I think of classroom events as potential research topics and think of finding a method for investigating them.
Meta-Cognitive:	10. I think of the meaning or significance of my job as a teacher. 11. I think about my strengths and weaknesses as a teacher. 12. I think of the positive/negative role models I have had as a student and the way they have affected me in my practice 13. As a teacher, I think about my teaching philosophy and the way it is affecting my teaching. 14. I think of the ways my biography or my background affects the way I define myself as a teacher. 15. I try to find out which aspects of my teaching provide me with a sense of satisfaction.
Critical:	16. In my teaching, I include less-discussed topics, such as old age, AIDS, discrimination against women and minorities, and poverty. 17. I think about the political aspects of my teaching and the way I may affect my students' political views. 18. I think of outside social events that can influence my teaching inside the class 19. I think of ways through which I can promote tolerance and democracy in my classes and in the society in general. 20. I think about the ways gender, social class, and race influence my students' achievements. 21. I think of ways to enable my students to change their social lives in fighting poverty, discrimination, and gender bias.

Yeşilbursa, A. (2013). Construct validation of the English Language Teaching Reflective Inventory with a sample of Turkish university EFL instructors. *English Language Teaching, 6*(5), 28-37.

3.4.2.1 Validity and Reliability of ELTRI

In order to ensure its construct validity for this dissertation, ELTRI was put to EFA in the present study. For EFA, Varimax rotation was used, and the number of factors was determined with the Kaiser criteria (Kaiser, 1960), which determines the number of eigenvalues greater than 1. Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity results were also checked in order to test whether the data is suitable for factor analysis. KMO value closer to 1 indicate better fit of the data for factor analysis, and Bartlett's Test of Sphericity is used for validating the assumption of identity correlation matrix and significance value lower than 0.05 indicates the existence of identity correlation matrix and the suitability of the data for factor analysis (Cerny & Kaiser, 1977; Hutcheson & Sofroniou, 1999).

Table 3.24.
KMO and Barlett's Test for ELTRI

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy		.88
Bartlett's Test of Sphericity	Approx. Chi-Square	2896.883
	df	210
	Sig.	.00

For ELTRI, as Table 3.24 shows, the KMO measure of sampling adequacy was .88, and Barlett's Test of Sphericity was found to be statistically significant at $\chi2(210) = 2896.883$, $p<.00$, which shows that ELTRI was suitable for FA. EFA yielded to a four-factor solution in compliance with the one in Yeşilbursa's (2013) study. In this four-factor solution for ELTRI, 56% of the sample variance was accounted for by the items. It is commonly agreed in the literature that 55% of the variance and above is an acceptable percentage in the field of social sciences (Dunteman, 1989; Netemeyer, et al, 2003). After the analysis, the item 1 was excluded from the instrument because of its ambiguous factor loading in the Rotated Component Matrix, and the item 18 loaded into Factor 3 rather than Factor 4. The items and their factor loadings are shown in Table 3.25.

Table 3.25.
Factor Loadings of ELTRI

		Component			
Factor 1: Practical		1	2	3	4
2.	I ask my peers to observe my teaching and comment on my teaching performance.	.859			
3.	I observe other teachers' classrooms to learn about their efficient practices.	.852			
Factor 2: Cognitive					
4.	I think of using/introducing new teaching techniques in my classes.		.447		
5.	I participate in workshops/conferences related to teaching/learning issues.		.632		
6.	I read books/articles related to effective teaching to improve my classroom performance.		.747		
7.	I look at journal articles or search the internet to see what the recent developments in my profession are.		.778		
8.	I think of writing articles based on my classroom experiences.		.790		
9.	I think of classroom events as potential research topics and think of finding a method for investigating them.		.701		
Factor 3: Meta-Cognitive					
10.	I think of the meaning or significance of my job as a teacher.			.557	
11.	I think about my strengths and weaknesses as a teacher.			.670	
12.	I think of the positive/negative role models I have had as a student and the way they have affected me in my practice			.727	
13.	As a teacher, I think about my teaching philosophy and the way it is affecting my teaching.			.630	
14.	I think of the ways my biography or my background affects the way I define myself as a teacher.			.453	
15.	I try to find out which aspects of my teaching provide me with a sense of satisfaction.			.611	
18.	I think of outside social events that can influence my teaching inside the class			.525	
Factor 4: Critical					
16.	In my teaching, I include less-discussed topics, such as old age, AIDS, discrimination against women and minorities, and poverty.				.550
17.	I think about the political aspects of my teaching and the way I may affect my students' political views.				.699
19.	I think of ways through which I can promote tolerance and democracy in my classes and in the society in general.				.526
20.	I think about the ways gender, social class, and race influence my students' achievements.				.692
21.	I think of ways to enable my students to change their social lives in fighting poverty, discrimination, and gender bias.				.712

In order to ensure its reliability, Cronbach alpha (α) coefficients of 20 items and 4 factors in ELTRI were analyzed. Within each factor, the results indicated that the instrument is highly reliable and the reliability value does not increase when an item is deleted. The overall reliability coefficient of ELTRI was found to be very high. The results of the reliability analysis for each factor are presented in Table 3.26 below.

Table 3.26.
Cronbach Alpha Coefficients for 5 Factors in ELTRI

		Items	Cronbach's α
Factor 1	Practical	2-3	.804
Factor 2	Cognitive	4-5-6-7-8-9	.840
Factor 3	Meta-Cognitive	10-11-12-13-14-15-18	.788
Factor 4	Critical	16-17-19-20-21	.737

3.4.3. Instrument 3: Teacher Burnout Scale (TBS)

The participant teachers' burnout levels were measured with "Teacher Burnout Scale" (TBS), which was originally devised by Richmond et al., (2001), who define teacher burnout as a process where a teacher begins to gradually but surely feel fatigued, weary, tired, discouraged, uncomfortable, disenfranchised, disengaged, hostile, and inadequate about her or his job position" (p. 207). In this definition, burnout is regarded as a "slow, creeping, insidious, affliction process that steadily works its way into a teacher's spirit" (p. 208). Therefore, if unnoticed or not managed, burnout can eventually lead to feelings of dislike, discontent, hostility, and non-caring on the part of the teacher. According to Richmond et al., (2009), since burnout does not occur overnight, in order for someone to be a candidate for burnout, they must have a number of the symptoms (i.e. communication symptoms, physiological symptoms, behavioral symptoms, and/or organizational symptoms), and they must have at least a few of these symptoms for a long period of time. Because of the fact that they define burnout as a slow and gradual process, Richmond et al., (2001) devised TBS as a 'scale' in order to determine how employees feel about their jobs and to identify the teachers' burnout levels. In TBS, there are 20 items on a five-point Likert scale (Table 3.27). The responses vary from 1 to 5 (1 for "strongly disagree", 2 for "disagree", 3 for "neutral", 4 for "agree", and 5 for "strongly agree").

Adding up the scores for all 20 items shows an individual's level of burnout:

- 20-35 means few burnout feelings
- 36-55 means some strong feelings of burnout
- 56-70 means substantial burnout feelings
- 71-80 means burnout

Table 3.27.

TBS used in the Data Collection Phase of the Present Study

1. I am bored with my job.
2. I am tired of my students.
3. I am weary with all of my job responsibilities.
4. My job doesn't excite me anymore.
5. I dislike going to my job.
6. I feel alienated at work.
7. I feel frustrated at work.
8. I avoid communication with students.
9. I avoid communication with my colleagues.
10. I communicate in a hostile manner at work.
11. I feel ill at work.
12. I think about calling my students ugly names.
13. I avoid looking at my students.
14. My students make me sick.
15. I feel sick to my stomach when I think about work.
16. I wish people would leave me alone at work.
17. I dread going to school.
18. I am apathetic about my job.
19. I feel stressed at work.
20. I have problems concentrating at work.

Richmond, V. P., Wrench, J. S., & Gorham, J. (2001). *Communication, affect, and learning in the classroom.* Acton, MA: Tapestry Press.

3.4.3.1. Validity and Reliability of TBS

In this dissertation, TBS was used both as a scale to assess participant teachers' burnout levels and as a factorized instrument to be analyzed with ELTRI and TEPAQ. Therefore, TBS was put to EFA to ensure its construct validity and also in order to make the instrument compatible with the CFA and SEM analysis. To this end, Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity results were checked in order to test whether the data is suitable for factor analysis.

Table 3.28.
KMO and Barlett's Test for TBS

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy		.93
Bartlett's Test of Sphericity	Approx. Chi-Square	4894.174
	df	190
	Sig.	.00

For TBS, the KMO measure of sampling adequacy was .93, and Barlett's Test of Sphericity was found to be statistically significant at $\chi2(190) = 4894.174$, $p<.00$, which shows that TBS was suitable for FA. The Varimax rotation with the Kaiser criteria yielded to a four-factor with 20 items. In this four-factor solution, 67% of the sample variance was accounted for by the items, and the items grouped under four factors which are related to: (1) Emotional breakdown, (2) Communicative difficulties, (3) Work-related Feelings, and (4) Feelings about students. The items and their factor loadings are shown in Table 3.29.

Table 3.29.
Factor Loadings of TBS

	Component			
Factor 1: Emotional Breakdown	1	2	3	4
1. I am bored with my job.	.848			
2. I am tired of my students.	.793			
3. I am weary with all of my job responsibilities.	.727			
4. My job doesn't excite me anymore.	.818			
5. I dislike going to my job.	.739			
6. I feel alienated at work.	.502			
7. I feel frustrated at work.	.586			
Factor 2: Communicative Difficulties				
8. I avoid communication with students.		.590		
9. I avoid communication with my colleagues.		.796		
10. I communicate in a hostile manner at work.		.629		
Factor 3: Work-Related Feelings				
11. I feel ill at work			.604	
15. I feel sick to my stomach when I think about work.			.715	
16. I wish people would leave me alone at work.			.700	
17. I dread going to school.			.730	
18. I am apathetic about my job.			.640	
19. I feel stressed at work.			.740	
20. I have problems concentrating at work.			.604	
Factor 4: Feelings about Students				
12. I think about calling my students ugly names.				.740
13. I avoid looking at my students.				.757
14. My students make me sick.				.698

In order to ensure its reliability, Cronbach alpha (α) coefficients of 20 items and 4 factors in TBS were analyzed. Within each factor, the results indicated that the instrument is highly reliable and the reliability value does not increase when an item is deleted. The overall reliability coefficient of TBS was found to be very high. The results of the reliability analysis for each factor are presented in Table 3.30.

Table 3.30.
Cronbach Alpha Coefficients for 5 Factors in TBS

		Items	Cronbach's α
Factor 1	Emotional Breakdown	1-2-3-4-5-6-7	.916
Factor 2	Communicative Difficulties	8-9-10	.669
Factor 3	Work-Related Feelings	11-15-16-17-18-19-20	.906
Factor 4	Feelings about students	12-13-14	.737

3.5. Data Collection Procedures

In the first phase of this study, with an aim to write an item pool to develop a new instrument, data were collected qualitatively via semi-structured focus-group interviews with participant EFL instructors. In the second phase of the study, the data were collected quantitatively via online instruments. First, three instruments, namely TEPAQ, ELTRI, and TBS, were written on Google Forms. Google Forms is a program that collects online data as participants 'click' on their answers in the instruments. The program saves the answers of every participant into its database. At the end of the data collection process, it creates a data sheet which is compatible with statistical packages, such as Excel, SPSS, or AMOS. As for recruiting participants to the data collection process, Google Forms creates a link, through which all the three instruments can be accessed. This link was sent electronically to the participants via e-mail.

Before sending the e-mails to the participants, the approval of the Ethics Committee was first taken from Gazi University (Appendix A). This approval was sent to every principal of school of foreign languages from which the data was collected. The principals of the schools were asked for their consent so that the e-mail could be sent to the instructors working in their institutions. After their approvals were acquired, the e-mails were sent to the teachers. Since the data were collected from the volunteering instructors working in that particular school of foreign languages, before presenting the instructors with the link to the instruments in the e-mails, a brief explanation was given and their consent was taken (see Appendix B for a sample e-mail). The data collection process took about 3 months and was finalized with 375 participant instructors from 36 cities in 7 regions of Turkey.

3.6. Data Analysis

In the first phase of this study, the data collected via semi-structured focus-group interviews were subjected to qualitative data analysis as explained previously in this chapter. In the second phase of the study, the quantitative data collected with three instruments, namely TEPAQ, ELTRI, and TBS, were subjected to quantitative data analysis via statistical package programs: SPSS 21 and AMOS 5. Table 3.31 below presents information on the types of analyses used for the research question and hypotheses generated for the present study.

Table 3.31.
The Research Questions, Hypotheses and Types of Analyses Used in the Data Analyses of the Present Study

Research Questions	Method of Analysis
1. Are Turkish EFL teachers: 1a) professionally autonomous? 1b) reflective? 1c) burned out?	Descriptive Statistics: Frequencies, Standard Deviation, Means
2. Do these results differ by: 2a) gender? (Male/Female) 2b) level of education? (B.A. / M.A. / Ph.D.) 2c) work experience? (Experienced/Novice) 2d) type of university? (State/Foundation)	Descriptive Statistics: T-Test, ANOVA
Hypotheses	**Method of Analysis**
H1) There is a positive bi-directional relationship between teachers' professional autonomy and their reflective practice.	Inferential Statistics: Pearson Correlation, Regression, Structural Equation Modelling (SEM)
H2) There is a negative bi-directional relationship between teachers' burnout and their professional autonomy.	
H3) There is a negative bi-directional relationship between teachers' burnout and their reflective practice.	

Before conducting the analyses with each scale, assumption examinations (e.g., sample size, linearity and normality, outliers, and multicollinearity) were accounted for. Next, as the first step of the data analyses, Exploratory Factor Analyses were conducted for all 3 scales to see whether the factorization of the variables match with the literature for ELTRI and also to determine how the items are grouped together for TBS and the newly developed TEPAQ instrument. For EFA, Varimax rotation was used, and a number of factors is determined with the Kaiser criteria (Kaiser, 1960) which determines the factors based on the eigenvalues greater than 1. Results from the two methods, namely Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity, were checked and reported with an aim to test whether the data is suitable for factor analysis. The first method, the KMO, takes a value between 0 and 1, and closer values to 1 indicate better fit of the data for factor analysis (FA), whereas KMO values lower than 0.5 do not prove adequate for FA (Cerny & Kaiser, 1977). In addition, Hutcheson and Sofroniou (1999) refers to KMO values between 0.5 and 0.7 as mediocre, values between 0.7 and 0.8 as good, values between 0.8 and 0.9 as great, and values above 0.9 as superb. The second method, Bartlett's Test of Sphericity, was used for validating the assumption of identity correlation matrix and significance value lower than 0.05 indicates the existence of identity correlation matrix and the suitability of the data for factor analysis.

In accordance with EFA results, a number of items were excluded from the instruments. After eliminating these items, a number of reliability analyses were conducted for each instrument and also their sub-components based on the results of EFA. Cronbach's alpha (α) measure was used in reliability analyses and the threshold value of 0.7 was set as the minimum as suggested by Field (2013).

Following the EFA and the reliability analyses, a separate Confirmatory Factor Analysis (CFA) model was constructed with the surviving items in each instrument. CFA was conducted with the purpose of testing the theory or model for a set of variables being structured through EFA by specifying whether variables are correctly loaded on the factors that were previously posited. In addition, CFA was conducted to identify whether the factors are correlated and the number of factors fixed a priori (Stevens, 2009). Finally, a hypothesized model for the latent variables measured with the three instruments (i.e. TEPAQ, ELTRI and TBS) was tested via Structure Equation Modelling (SEM). Validity of the CFA model and the SEM model was confirmed with Chi-Square and degrees of freedom ratio ($\chi 2/df$) along with various fit indices including Goodness-of-Fit Index (GFI), Adjusted

Goodness-of-Fit Index (AGFI), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Incremental Fit Index (IFI) and Root-Mean-Square Residual Index (RMSEA).

After constructing the SEM model, various analyses were performed in accordance with the research questions. Descriptive statistics (i.e., mean, median, and standard deviation) were reported for each scale and their sub-scales. Independent samples t-test and ANOVA analyses were performed to find the differences among demographic variables. Moreover, Pearson correlation and simple linear regression analyses were carried out and β coefficients and R^2 values were reported in order to measure the relationships among the variables gauged by the instruments.

CHAPTER IV

RESULTS

The teacher is no longer merely the-one-who-teaches, but one who is himself taught in dialogue with the students, who in turn while being taught also teach. They become jointly responsible for a process in which all grow.

Paulo Freire
(Pedagogy of the Oppressed)

4.0. Introduction

In this chapter, detailed information about the results of the data analysis are presented. In order to answer the research questions, a number of descriptive and inferential statistics analyses including descriptive statistics, independent sample t-tests, and one-way ANOVA analyses were conducted via SPSS Version 21, and in order to test the hypothesized model among the study variables, Structural Equation Modelling (SEM) analysis was carried out via AMOS 5 program. This chapter presents the results of these analyses.

4.1. General Information about the Data Analysis of the Scales

TEPAQ is an instrument constructed and validated in the present study. It has 5 factors with 23 Likert-type items that measure teachers' (1) internal drives and motives; (2) capability; (3) collaboration with colleagues; (4) time management; and (5) external drives and motives. Since it was created after a long and exhaustive process of reviewing the literature extensively, carrying out focus group interviews, writing the item pool, taking the expert reviews, and conducting the validity and reliability of the instrument with EFA and CFA analyses, it can be argued that these 5 factors in TEPAQ measure the most significant components related to teachers' professional autonomy. Therefore, concerning the actual data analysis of TEPAQ, it can be stated that the score coming from each factor in TEPAQ gives a substantive idea about a teachers' professional autonomy. In other words, for teachers to be professionally autonomous, they should have internal or external drives and motives; capability, time, and collaboration with colleagues in order to develop themselves professionally.

ELTRI is an instrument that measures reflective practices of teachers. Similar to TEPAQ, it is an instrument combining 4 factors and 20 Likert-type items measuring how often teachers do reflective practices. Since 4 factors of the instrument, namely Practical, Cognitive, Meta-Cognitive, and Critical, are the dimensions underlying the concept of reflective practice, the mean scores in these dimensions show how reflective a teacher is.

TBS is an instrument that serves two different purposes in the present study. First, since it is a scale, the overall mean score of TBS measures teachers' *level* of burnout. Secondly, as a factorized instrument, it gives information about the burnout feelings of teachers related to the different dimension of burnout, namely (1) emotional breakdown; (2) communicative difficulties; (3) work-related feelings; and (4) feelings about students.

4.2. The Results of the Descriptive Statistics of the Scales

For each instrument – following the assumption checks of linearity, normality, outliers, and multicollinearity – the minimum and maximum values, the mean scores and the standard deviations of the total scores of the variables in TEPAQ, ELTRI and TBS were analyzed in order to answer the following research question and its sub-questions:

Research Question 1:

Are Turkish EFL teachers:

1a) professionally autonomous?

1b) reflective?

1c) burned out?

4.2.1. Teachers' Professional Autonomy: Descriptive Statistics of TEPAQ

TEPAQ is an instrument which measures teachers' professional autonomy with 5 factors: (1) internal drives and motives; (2) capability; (3) collaboration with colleagues; (4) time management; and (5) external drives and motives. Table 4.1 below gives information about the descriptive statistics of Factor 1 (Internal Drives and Motives) in TEPAQ. It can be seen that the participant teachers mostly believe they have internal drives and motives to develop themselves professionally. The responses particularly reveal that the teachers agree mostly on the item 5 "I enjoy developing myself professionally", whereas they commonly disagree on the item 6 "I feel obliged to continue my development as a teacher".

Table 4.1.
Descriptive Statistics of Factor 1 in TEPAQ: Internal Drives and Motives (N=375)

Items		Min.	Max.	*M*	*SD*
1	I want to develop myself professionally because I feel I have to.	1.00	5.00	4.10	1.03
2	It is my own wish to continue my professional development.	1.00	5.00	4.51	.75
3	I am curious about new ways to develop my teaching.	1.00	5.00	4.39	.82
4	I want to develop professionally because it is a necessity to meet the needs of students.	1.00	5.00	4.39	.87
5	I enjoy developing myself professionally.	1.00	5.00	**4.53**	.74
6	I feel obliged to continue my development as a teacher.	1.00	5.00	**3.87**	1.09
7	I constantly look for ways to develop my teaching.	1.00	5.00	4.02	.92
8	I want to develop professionally to meet the needs of my students.	1.00	5.00	4.24	.87
9	I want to develop myself professionally in order to push the limits of my abilities as a teacher.	1.00	5.00	4.12	.92

[1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree]
*The highest and the lowest mean scores are in **bold**.*

Table 4.2 below gives information about the descriptive statistics of Factor 2 (Capability) in TEPAQ. The results show that the mean score for none of the items in this factor fall below 4, which means that the participant teachers commonly believe that they are capable to develop themselves professionally. It can also be observed that the teachers mostly agree on the item 10 "I am able to search out information about teaching". Nonetheless, the item which teachers state themselves the least capable of is the item 15 "I can adapt to recent developments in teaching".

Table 4.2.
Descriptive Statistics of Factor 2 in TEPAQ: Capability (N=375)

Items		Min.	Max.	*M*	*SD*
10	I am able to search out information about teaching.	2.00	5.00	**4.57**	.65
11	I can find profession-related materials (i.e. books, journals, etc.) about teaching.	1.00	5.00	4.28	.85
12	I have the ability to develop my teaching.	2.00	5.00	4.50	.60
13	I am able to identify my weaknesses/strengths as a teacher.	1.00	5.00	4.22	.71
14	I am able to use technology to develop my teaching.	1.00	5.00	4.23	.80
15	I can adapt to recent developments in teaching.	1.00	5.00	**4.07**	.82
17	I have access to technology to continue my development as a teacher.	1.00	5.00	4.27	.78

[1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree]
*The highest and the lowest mean scores are in **bold**.*

Table 4.3 below gives information about the descriptive statistics of Factor 3 (Colleagues) in TEPAQ. It is evident from the mean scores of their responses that the participant teachers cannot agree on any of three items in the Colleagues dimension of TEPAQ, which means that they are not sure about working with their colleagues regarding their professional development. The teachers mostly disagree on the item 21, which proves that they have difficulty in finding colleagues to consult when they need help about their professional development.

Table 4.3.
Descriptive Statistics of Factor 3 in TEPAQ: Collaboration with Colleagues (N=375)

Items		Min.	Max.	*M*	*SD*
19	I can work with my colleagues to develop my teaching.	1.00	5.00	**3.92**	.98
20	I like to learn from my colleagues to develop my teaching.	1.00	5.00	3.88	.98
21	I have colleagues whom I can consult when I need help about my professional development.	1.00	5.00	**2.17**	1.14

[1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree]
*The highest and the lowest mean scores are in **bold**.*

Table 4.4 gives information about the descriptive statistics of Factor 4 (Time Management) in TEPAQ. The mean score for all of the items in this factor fall below 4, which shows that the participant teachers commonly believe they need more time to develop themselves professionally. This result is apparent as the teachers mostly tend to agree on the item 23 "If my working hours were shorter, I would do more professional development activities.".

Table 4.4.
Descriptive Statistics of Factor 4 in TEPAQ: Time Management (N=375)

Items		Min.	Max.	*M*	*SD*
23	If my working hours were shorter, I would do more professional development activities.	1.00	5.00	**3.95**	1.16
24	My workload is too heavy to engage in activities to develop myself as a teacher.	1.00	5.00	3.45	1.13
25	I find very little time outside the school for professional development activities.	1.00	5.00	**3.37**	1.09

[1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree]
The highest and the lowest mean scores are in ***bold****.*

Table 4.5 below presents information about the descriptive statistics of Factor 5 (External Drives and Motives) in TEPAQ. It can be observed from the mean scores of their responses that a large majority of the participant teachers are neutral about two items in the dimension of TEPAQ "External Drives and Motives". In other words, the teachers can neither agree nor disagree that their motives to develop themselves professionally are dependent on external reasons such as financial improvement or promotion.

Table 4.5.
Descriptive Statistics of Factor 4 in TEPAQ: External Drives and Motives (N=375)

Items		Min.	Max.	*M*	*SD*
26	I want to develop myself professionally to better my financial condition.	1.00	5.00	**2.96**	1.21
29	I want to develop myself professionally for a chance of getting promoted to a better position.	1.00	5.00	**2.97**	1.31

[1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree]
The highest and the lowest mean scores are in ***bold****.*

Overall, the descriptive statistics results for 5 dimensions in TEPAQ are presented in Table 4.6. As it can be seen, the participant teachers commonly agree that they have internal drives and motives and also capability to develop themselves professionally. However, they are hesitant about collaborating with their colleagues, and also they do not have colleagues whom they can consult about their professional development. The results also make it clear that the Turkish EFL teachers need more free time, or they need to be able to use their spare time more effectively for their professional self-development. Lastly, although the participant teachers are found to be driven more internally rather than externally, as they also do not show a complete disagreement with the external motives factor, it can also be concluded that the participant teachers might also be motivated by external drives such as finance or promotion to a certain extent.

Table 4.6.
Descriptive Statistics of Total Scores of 5 Factors in TEPAQ (N=375)

No.	Dimension	Min.	Max.	*M*	*SD*
1	Internal Drives and Motives	1.00	5.00	4.24	.65
2	Capability	1.00	5.00	**4.30**	.52
3	Collaboration	1.00	5.00	3.32	.43
4	Time Management	1.00	5.00	3.58	.92
5	External Drives and Motives	1.00	5.00	**2.96**	1.12
TEPAQ Total		2.46	4.79	3.95	.40

[1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree]
*The highest and the lowest mean scores are in **bold**.*

4.2.2. Teachers' Reflective Practices: Descriptive Statistics of ELTRI

ELTRI is an instrument that measures teachers' reflective practices with 4 factors: (1) practical; (2) cognitive; (3) meta-cognitive; and (4) critical. Table 4.7 below gives information about the descriptive statistics of Factor 1 (Practical) in ELTRI. It can be observed that the mean score for two items in this factor fall below 3, which means that the teachers ***rarely*** have a practice of observing their colleagues or being observed by them.

Table 4.7.
Descriptive Statistics of Factor 1 in ELTRI: Practical (N=375)

Items		Min.	Max.	*M*	*SD*
2	I ask my peers to observe my teaching and comment on my teaching performance.	1.00	5.00	**2.57**	1.33
3	I observe other teachers' classrooms to learn about their efficient practices.	1.00	5.00	**2.80**	1.35

[1=Never; 2=Rarely; 3=Sometimes; 4=Often; 5=Always]
*The highest and the lowest mean scores are in **bold**.*

Table 4.8 below gives information about the descriptive statistics of Factor 2 (Cognitive) in TEPAQ. When the items are examined in detail, it can be seen that the mean score for all of the items in this factor fall below 4, except for the item 4, which shows that teachers ***often*** think of using or introducing new techniques in their classrooms. In addition, the lowest mean score in this factor belongs is found to belong to the item 8, which indicates that teachers ***rarely*** think of writing articles based on classroom experiences. The remaining items are rated around 3 by the teachers, which shows that they ***sometimes*** do, attend, or join different kinds of professional development activities or events.

Table 4.8.
Descriptive Statistics of Factor 2 in ELTRI: Cognitive (N=375)

Items		Min.	Max.	*M*	*SD*
4	I think of using/introducing new teaching techniques in my classes.	1.00	5.00	**4.07**	.86
5	I participate in workshops/conferences related to teaching/learning issues.	1.00	5.00	3.37	1.16
6	I read books/articles related to effective teaching to improve my classroom performance.	1.00	5.00	3.74	1.11
7	I look at journal articles or search the internet to see what the recent developments in my profession are.	1.00	5.00	3.64	1.14
8	I think of writing articles based on my classroom experiences.	1.00	5.00	**2.86**	1.43
9	I think of classroom events as potential research topics and think of finding a method for investigating them.	1.00	5.00	3.46	1.21

[1=Never; 2=Rarely; 3=Sometimes; 4=Often; 5=Always]
*The highest and the lowest mean scores are in **bold**.*

Table 4.9 below presents information about the descriptive statistics of the Factor 3 (Meta-cognitive) in ELTRI. As the name implies, this component measures how often teachers think meta-cognitively as a part of reflective practice. It is apparent in Table 4.9 below that the participant teachers ***often*** think meta-cognitively. In particular, with the highest mean score, the item 11 shows that the teachers ***almost always*** think about their strengths and weaknesses as a teacher. Their answers to the remaining items indicate that the teachers ***often*** preoccupy themselves with the meaning of their job as a teacher and how their educational background defines their current teaching practices.

Table 4.9.
Descriptive Statistics of Factor 3 in ELTRI: Meta-Cognitive (N=375)

Items		Min.	Max.	*M*	*SD*
10	I think of the meaning or significance of my job as a teacher.	1.00	5.00	4.01	1.02
11	I think about my strengths and weaknesses as a teacher.	1.00	5.00	**4.35**	.70
12	I think of the positive/negative role models I have had as a student and the way they have affected me in my practice	1.00	5.00	4.22	.87
13	I think of outside social events that can influence my teaching inside the class	1.00	5.00	**3.73**	1.07
14	As a teacher, I think about my teaching philosophy and the way it is affecting my teaching.	1.00	5.00	4.12	.91
15	I think of the ways my biography or my background affects the way I define myself as a teacher.	1.00	5.00	3.84	.99
18	I try to find out which aspects of my teaching provide me with a sense of satisfaction.	1.00	5.00	4.10	.88

[1=Never; 2=Rarely; 3=Sometimes; 4=Often; 5=Always]
*The highest and the lowest mean scores are in **bold**.*

Table 4.10 presents information about the descriptive statistics of Factor 4 (Critical) in ELTRI. This factor measures how often teachers reflect on critical issues in terms of politics, health, social lives, poverty, and so on. When the responses of the teachers are examined in detail, it can be clearly observed that despite teachers ***often*** try to promote tolerance and democracy in their classes, they ***rarely*** think about the political aspects of their teaching and the way they may affect their students' political views.

Table 4.10.
Descriptive Statistics of Factor 4 in ELTRI: Critical (N=375)

Items		Min.	Max.	*M*	*SD*
10	In my teaching, I include less-discussed topics, such as old age, AIDS, discrimination against women and minorities, and poverty.	1.00	5.00	3.18	1.29
11	I think about the political aspects of my teaching and the way I may affect my students' political views.	1.00	5.00	**2.70**	1.36
12	I think of ways through which I can promote tolerance and democracy in my classes and in the society in general.	1.00	5.00	**4.07**	.95
13	I think about the ways gender, social class, and race influence my students' achievements.	1.00	5.00	3.66	1.12
14	I think of ways to enable my students to change their social lives in fighting poverty, discrimination, and gender bias.	1.00	5.00	3.38	1.20

[1=Never; 2=Rarely; 3=Sometimes; 4=Often; 5=Always]
*The highest and the lowest mean scores are in **bold**.*

As Table 4.11 below demonstrates, the total scores of ELTRI indicate that the participant teachers in this study are especially reflective in terms of cognitive and meta-cognitive aspects of reflective teaching. However, with the component 'Practical' having the lowest mean score, it can also be seen that the teachers ***rarely*** think of working with their colleagues about observing each other, and that they are not quite willing to think about the critical aspect about teaching. Overall, the mean score for all 4 factors ELTRI show that the participant teachers in this study are ***sometimes*** reflective.

Table 4.11.
Descriptive Statistics of Total Scores of 4 Factors in ELTRI (N=375)

No.	Dimension	Min.	Max.	*M*	*SD*
1	Practical	1.00	5.00	**2.68**	1.22
2	Cognitive	1.00	5.00	3.52	.87
3	Meta-Cognitive	1.29	5.00	**4.05**	.63
4	Critical	1.40	5.00	3.39	.81
ELTRI Total		1.12	4.95	3.59	.60

[1=Never; 2=Rarely; 3=Sometimes; 4=Often; 5=Always]
*The highest and the lowest mean scores are in **bold**.*

4.2.3. Teachers' Burnout Level: Descriptive Statistics of TBS

Table 4.12 below presents information about the descriptive statistics of the component 'Emotional Breakdown' in TBS. It is apparent from their answers that the participant teachers do not seem to have a serious emotional breakdown with their responses being under the mean score of 3. However, the individual items reveal that although most of the teachers strongly disagree on the item 14 "I dislike going to my job", they are neutral about item 12 "I am weary with all of my job responsibilities" with the highest mean score close to 3 (neutral). This shows that despite the fact that the teachers do not dislike going to work, they are tired because of their workload or responsibilities in their workplaces.

Table 4.12.
Descriptive Statistics of Factor 1 in TBS: Emotional Breakdown (N=375)

Items		Min.	Max.	*M*	*SD*
1	I am bored with my job.	1.00	5.00	2.32	1.19
2	I am tired of my students.	1.00	5.00	2.31	1.22
3	I am weary with all of my job responsibilities.	1.00	5.00	**2.55**	1.17
4	My job doesn't excite me anymore.	1.00	5.00	2.18	1.15
5	I dislike going to my job.	1.00	5.00	1.96	1.08
6	I feel alienated at work.	1.00	5.00	**1.94**	1.09
7	I feel frustrated at work.	1.00	5.00	2.27	1.19

[1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree]
The highest and the lowest mean scores are in **bold**.

Table 4.13 gives information about the descriptive statistics on teachers' communicative difficulties as the second factor of TBS. It is evident from the mean scores of their responses that the participant teachers generally strongly disagree on the all three of the items, which means that they have nearly no communicative difficulties. Nevertheless, when the mean scores of the item 8 and item 9 are examined in detail, which have the minimum and maximum mean scores in this factor, respectively; it can be realized that the participant teachers tend to have more communication problems with their colleagues than they do with their students.

Table 4.13.
Descriptive Statistics of Factor 2 in TBS: Communicative Difficulties (N=375)

Items		Min.	Max.	*M*	*SD*
8	I avoid communication with students.	1.00	5.00	**1.39**	.77
9	I avoid communication with my colleagues.	1.00	5.00	**1.71**	1.04
10	I communicate in a hostile manner at work.	1.00	5.00	1.47	.92

[1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree]
The highest and the lowest mean scores are in **bold**.

Table 4.14 below gives information about the descriptive statistics of Factor 3 (Work-Related Feelings) in TBS. The mean score for all of the items in this factor fall below 2, except for the item 19 “I feel stressed at work” which shows that although the participant teachers do not have very strong negative feelings about work, they tend to feel stressed.

Table 4.14.
Descriptive Statistics of Factor 3 in TBS: Work-Related Feelings (N=375)

Items		Min.	Max.	*M*	*SD*
11	I feel ill at work.	1.00	5.00	1.57	.95
15	I feel sick to my stomach when I think about work.	1.00	5.00	**1.38**	.76
16	I wish people would leave me alone at work.	1.00	5.00	1.70	1.03
12	I dread going to school.	1.00	5.00	1.45	.85
18	I am apathetic about my job.	1.00	5.00	1.57	.89
19	I feel stressed at work.	1.00	5.00	**2.18**	1.14
20	I have problems concentrating at work.	1.00	5.00	1.82	.99

[1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree]
The highest and the lowest mean scores are written in **bold**.

Table 4.15 provides information about the descriptive statistics of Factor 4 in TBS, which measures teachers’ feelings about their students. As the mean scores of their responses indicate, the participant teachers generally strongly disagree on the all three of the items, which means that they have nearly no negative feelings about their students.

Table 4.15.
Descriptive Statistics of Factor 4 in TBS: Feelings about Students (N=375)

Items		Min.	Max.	*M*	*SD*
12	I think about calling my students ugly names.	1.00	5.00	1.25	.678
13	I avoid looking at my students.	1.00	5.00	**1.18**	.513
14	My students make me sick.	1.00	5.00	**1.37**	.783

[1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree]
The highest and the lowest mean scores are written in **bold**.

Overall, the descriptive statistics results for 4 dimensions in TBS are presented in Table 4.16 below. As it can be seen, the participant teachers showed a common tendency towards disagreeing on all 4 factors, which means that the Turkish EFL teachers participating in this study have no (or very little) burnout feelings. In particular, the results indicate that they have nearly no negative feelings towards their students. However, it can also be noticed that the mean score for the component 'Emotional Breakdown' is the highest among other factors of TBS.

Table 4.16.
Descriptive Statistics of Total Scores of 4 Factors in TBS (N=375)

No.	Dimension	Min.	Max.	*M*	*SD*
1	Emotional Breakdown	1.00	5.00	**2.21**	.94
2	Communicative Difficulties	1.00	5.00	1.52	.71
3	Work-Related Feelings	1.00	5.00	1.66	.76
4	Feelings about students	1.00	5.00	**1.26**	.54
TBS Total		1.00	5.00	1.77	.67

[1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree]
*The highest and the lowest mean scores are in **bold**.*

4.3. Differences in demographic variables regarding TEPAQ, ELTRI and TBS

In the present study, the second research question asks whether there is a relationship between teachers' professional autonomy, reflective practice, and burnout and a number of demographic variables, namely their gender, level of education, work experience, and the type of university they work in.

Research Question 2:

Do the results differ by:

2a) gender?

2b) level of education?

2c) work experience?

2d) type of university?

In order to answer this second research question and its sub-questions, a series of t-test and one-way ANOVA analyses were carried out.

4.3.1. Differences in gender for TEPAQ, ELTRI and TBS

An independent samples t-test was conducted with an aim to see whether the mean scores for TEPAQ, ELTRI, and TBS instruments significantly differed with regard to participants' gender. Levene's test for Equality of Variances was checked for all measures as an assumption of the independent samples t-test. As Field (2009) explains, Levene's test tests the null hypothesis that the variances in different groups are equal (i.e. the difference between the variances is zero). If Levene's test is significant at $p < .05$ then it can be concluded that the null hypothesis is incorrect and that the variances are significantly different – therefore, the assumption of homogeneity of variances has been violated. If, however, Levene's test is non-significant (i.e. $p < .05$) then the variances are roughly equal and the assumption is tenable (p. 150).

When reporting t-test results, the effect size is also suggested to be reported as it provides an objective measure of the importance of an effect (Field, 2009). This effects size is referred to as Cohen's *d*.

According to Cohen (1988, 1992):

- $r = .10$ represents small effect: The effect accounts for 1% of the total variance.
- $r = .30$ represents medium effect: The effect accounts for 9% of the total variance.
- $r = .50$ represents large effect: The effect accounts for 25% of the variance.

In the present study, regarding the difference between gender, Levene's test for Equality of Variances was not found to be significant for TEPAQ (F=. 056, p. =. 81), ELTRI (F=1.35, p.=.24), or TBS (F=.008, p.=.93), which shows that the assumption of homogeneity of variances were violated. Therefore, an independent samples t-test based on equal variances was carried out. Table 4.17 below gives the main scores for TEPAQ, ELTRI, and TBS according to gender of the participants.

Table 4.17.
Independent Samples T-Test Mean Scores of All Measures Regarding Teachers' Gender

	Gender	N	*M*	*SD*
TEPAQ	Male	79	3.87	.401
	Female	292	3.98	.409
ELTRI	Male	79	3.41	.659
	Female	292	3.63	.586
TBS	Male	79	1.88	.664
	Female	292	1.74	.680

As Table 4.18 below demonstrates, the results of the independent samples t-test for all measures indicate that there is a statistically significant difference between males and females regarding TEPAQ and ELTRI scores. The TEPAQ scores are significantly higher for females (M = 3.98, SD = .409) than for males (M = 3.87, SD = 401), t(369) = -2.08, p <.05. d = .27), which means that despite the small effect size, female teachers in this study are more professionally autonomous than male ones. As for ELTRI, the results are also significant (t(369) = -2.87, p <.01. d = .35), which means that the mean ELTRI scores of females (M = 3.63, SD = .586) are significantly higher than those of males (M = 3.41, SD = .659). The size of this effect (d = .35), as indexed by Cohen's (1988) coefficient d, is found to represent a medium effect accounting for about %9 of the total variance, which shows that female teachers are significantly more reflective than male ones. For TBS, however, the independent samples t-test result suggests no significant difference between males and females regarding their burnout levels t(369) = 1.62, p=.10, which indicates that the burnout levels of teachers do not differ according to their gender.

Table 4.18.
Independent Samples T-test Results of All Measures Regarding Teachers' Gender

	t	*df*	*p.*	*M* Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
TEPAQ	-2.08	369	.03	-.107	.051	-.20971	-.00627
ELTRI	-2.87	369	.00	-.219	.076	-.36965	-.06919
TBS	1.62	369	.10	.139	.085	-.02980	.30805

4.3.2. Differences among Level of Education for TEPAQ ELTRI and TBS

A one-way ANOVA test was conducted to find out whether the participants' level of education was related to the scores received on TEPAQ, ELTRI, and TBS. The participants' level of education was the categorical variable as the teachers were divided into three groups, namely those with a B.A degree, those with an M.A degree, and those with a Ph.D degree. Descriptive statistics are presented in Table 4.19.

Table 4.19.
Descriptive Statistics of One-way ANOVA Regarding Teachers' Level of Education

		N	*M*	*SD*	*Min.*	*Max.*
TEPAQ	B.A	122	3.85	.420	2.75	4.63
	M.A	192	4.00	.374	2.96	4.79
	Ph.D	61	4.05	.454	2.46	4.71
	Total	375	3.96	.410	2.46	4.79
ELTRI	B.A	122	3.49	.628	1.25	4.95
	M.A	192	3.61	.545	2.25	4.95
	Ph.D	61	3.76	.719	1.45	4.95
	Total	375	3.59	.609	1.25	4.95
TBS	B.A	122	1.83	.745	1.00	5.00
	M.A	192	1.70	.606	1.00	3.85
	Ph.D	61	1.89	.736	1.00	3.80
	Total	375	1.78	.678	1.00	5.00

In order to check the assumption for the one-way ANOVA test, Levene's test for Equality of Variances was used. Levene's test was not significant for TEPAQ, $F(2,372)=.386$, $p.=.68$, ELTRI $F(2,372)=1.68$, $p.=.18$, or TBS $F(2,372)=2.99$, $p.=.05$, which shows that the assumption of homogeneity of variances was violated, and therefore, a one-way ANOVA analysis based on equal variances was carried out. When calculating the effect size with ANOVA, rather than Cohen's *d* as in the t-test, the Eta squared (η^2) measures are calculated (Tabachnick & Fidell, 2001). Table 4.20 below presents the one-way ANOVA results for TEPAQ, ELTRI, and TBS regarding the level of education of the participants. It is found that despite the small effect sizes, there is a statistically significant difference between three groups for TEPAQ ($F(2,372) = 7.35$, $p < .01$) and ELTRI ($F(2,372) = 4.49$, $p < .05$), but not for TBS ($F(2,372) = 2.45$, $p.=.09$), which shows that level of education does not have a significant relationship to teachers' burnout, but it appears to increase their professional autonomy and reflective practice. As Table 4.20 below shows, with an effect size of $\eta2=.03$ and $\eta2=.02$, respectively, it could be said that 3% and 2% variance in teachers' professional autonomy and reflective practice can be explained by the main effect of their level of education.

Table 4.20.
One-way ANOVA Results of All Measures Regarding Teachers' Level of Education

		SS	*df*	*MS*	*F*	*p.*	η^2
TEPAQ	Between Groups	1377.78	2	688.89	7.36	.00	.038
	Within Groups	34830.88	372	93.63			
	Total	36208.67	374				
ELTRI	Between Groups	1252.77	2	626.39	4.30	.01	.023
	Within Groups	54208.33	372	145.72			
	Total	55461.10	374				
TBS	Between Groups	896.35	2	448.18	2.45	.09	.013
	Within Groups	67934.57	372	182.62			
	Total	68830.93	374				

Since the *F* value was significant for TEPAQ and ELTRI measures, with an aim to determine the location of the difference, a post hoc analysis was conducted. A post hoc analysis helps to describe data and see how the values vary across groups of subjects, across tasks, and so forth (Hatch & Lazaraton, 1991). According to Mackey and Gass (2005), common post-hoc analyses include the Tukey test, the Scheffe test, and Duncan's multiple range test. In the present study, A Tukey post hoc test was carried out in order to see where the difference lies regarding the participants' TEPAQ scores with the educational levels.

As Table 4.21 demonstrates, the Tukey Post-hoc test reveals that the mean score of TEPAQ in the M.A category (*M*=4.00, *SD*=.374) and the Ph.D category (*M*=4.05, *SD*=.454) is significantly higher than the one in the B.A category (M=3.85, SD=.420). In a similar vein, the mean score of ELTRI in the Ph.D category (*M*=3.76, *SD*=.719) is significantly higher than the one in the B.A category (M=3.49, SD= .628) with a mean difference of 0.273. These results indicate that the teachers with M.A or Ph.D degrees are significantly more professionally autonomous and reflective than the teachers with only B.A degrees.

Table 4.21.
Post-hoc Comparison of Teachers' Level of Education Regarding All Measures

(Tukey)	(I) Level of Education	(J) Level of Education	Mean Difference (I-J)	Std. Error	*p.*	95% Confidence Interval	
						Lower Bound	Upper Bound
TEPAQ	B.A	M.A	-.151*	.046	.00	-.2616	-.0419
		Ph.D	-.207*	.063	.00	-.3564	-.0589
	M.A	B.A	.151*	.046	.00	.0419	.2616
		Ph.D	-.055	.059	.61	-.1953	.0836
	Ph.D	B.A	.207*	.063	.00	.0589	.3564
		M.A	.055	.059	.61	-.0836	.1953
ELTRI	B.A	M.A	-.122	.069	.18	-.2871	.0418
		Ph.D	-.273*	.094	.01	-.4961	-.0506
	M.A	B.A	.122	.069	.18	-.0418	.2871
		Ph.D	-.150	.088	.20	-.3595	.0580
	Ph.D	B.A	.273*	.094	.01	.0506	.4961
		M.A	.150	.088	.20	-.0580	.3595
TBS	B.A	M.A	.129	.078	.22	-.0549	.3133
		Ph.D	-.060	.105	.83	-.3100	.1887
	M.A	B.A	-.129	.078	.22	-.3133	.0549
		Ph.D	-.189	.099	.13	-.4235	.0439
	Ph.D	B.A	.060	.105	.83	-.1887	.3100
		M.A	.189	.099	.13	-.0439	.4235

* The mean difference is significant at the 0.05 level

4.3.3. Differences among Work Experience for TEPAQ ELTRI and TBS

In order to see whether there is a significant difference between participants' work experience and the mean scores for TEPAQ, ELTRI, and TBS, another one-way ANOVA test was conducted with the three measures. The participants' work experience is the categorical variable as the teachers were divided into three groups, namely those with 0-5 years, with 5-10 years, and with 10+ years of experience. Descriptive statistics are presented in Table 4.22.

Table 4.22.
Descriptive Statistics of One-way ANOVA Analysis Regarding Teachers' Work Experience

		N	*M*	*SD*	*Min.*	*Max.*
TEPAQ	0-5 Years	55	4.10	.395	2.92	4.79
	5-10 Years	132	3.98	.382	2.75	4.71
	10+ Years	188	3.90	.424	2.46	4.71
	Total	375	3.96	.410	2.46	4.79
ELTRI	0-5 Years	55	3.74	.538	2.40	4.95
	5-10 Years	132	3.57	.553	2.20	4.70
	10+ Years	188	3.57	.660	1.25	4.95
	Total	375	3.59	.609	1.25	4.95
TBS	0-5 Years	55	1.85	.747	1.00	4.30
	5-10 Years	132	1.86	.723	1.00	5.00
	10+ Years	188	1.70	.617	1.00	3.80
	Total	375	1.78	.678	1.00	5.00

In order to check the assumption for the one-way ANOVA test, Levene's test for Equality of Variances was checked for the three measures. Levene's test was not significant for TEPAQ, $F(2,372)=1.11$, $p.=.33$ and TBS $F(2,372)=2.54$, $p.=.08$, but it was significant for ELTRI $F(2,372)=3.68$, $p.=.02$, which shows that except for the ELTRI measure, the assumption of homogeneity of variances for TEPAQ and TBS was violated; and therefore, a one-way ANOVA analysis based on equal variances was carried out.

Table 4.23 below presents the one-way ANOVA results for TEPAQ, ELTRI, and TBS regarding the work experience of the participants. It is found that although the effect sizes are small, there is a statistically significant difference only among the three groups for TEPAQ ($F(2,372) = 5.19$, $p<.01$), but not for ELTRI ($F(2,372) = 1.92$, $p=.15$) or TBS ($F(2,372) = 2.42$, $p = .09$), which shows that work experience does not have a significant relationship with teachers' reflective practice or burnout levels, but it seems to play a role on their professional autonomy. As Table 4.23 below shows, with an effect size of $\eta 2=.027$, it could be said that 2% variance in teachers' professional autonomy can be explained by the main effect of their work experience.

Table 4.23.
One-way ANOVA Results of All Measures Regarding Teachers' Work Experience

		SS	*df*	*MS*	*F*	*p.*	*η²*
TEPAQ	Between Groups	1.70	2	.853	5.18	.00	0.27
	Within Groups	61.15	372	.164			
	Total	62.86	374				
ELTRI	Between Groups	1.41	2	.707	1.91	.15	.010
	Within Groups	137.23	372	.369			
	Total	138.65	374				
TBS	Between Groups	2.21	2	1.10	2.42	.09	0.13
	Within Groups	169.86	372	.457			
	Total	172.077	374				

With an aim to see where the effect derives from, a Tukey post-hoc test for TEPAQ is conducted (Table 4.24). The results reveal that the mean score of TEPAQ in the 0-5 years and 10+ category is significantly different than each other. The mean score of TEPAQ in the category of teachers with an experience over 10 years (*M*=3.90, *SD*=.424) is significantly lower than the category of 0-5 years (*M*=4.10, *SD*=.395), which indicates that the teachers who have been teaching for more than 10 years are less professionally autonomous than the teachers who have recently started teaching.

Table 4.24.
Post-hoc Comparison of Teachers' Work Experience Regarding All Measures

Tukey	*(I) Work Experience*	*(J) Work Experience*	*Mean Difference (I-J)*	*Std. Error*	*p.*	*95% Confidence Interval*	
						Lower Bound	*Upper Bound*
TEPAQ	0-5 Years	5-10 Years	2.86	1.562	.16	-.81	6.54
		10+ Years	4.68*	1.492	.00	1.17	8.19
	5-10 Years	0-5 Years	-2.86	1.562	.16	-6.54	.81
		10+ Years	1.81	1.105	.22	-.78	4.41
	10+ Years	0-5 Years	-4.68*	1.492	.00	-8.19	-1.17
		5-10 Years	-1.81	1.105	.22	-4.41	.78

* The mean difference is significant at the 0.05 level

4.3.4. Differences among Type of University for TEPAQ ELTRI and TBS

Type of university where teachers work was examined as another demographic variable. Levene's test for Equality of Variances was not found to be significant for TEPAQ (*F*=2.30, *p*.=.13), ELTRI (*F*=.952, *p*.=.33), and TBS *F*=.850, *p*.=.35), which showed that the assumption of homogeneity of variances was violated and therefore an independent samples t-test based on equal variances was carried out. Table 4.25 below gives the main scores for TEPAQ, ELTRI, and TBS according to the type of university the participants work in.

Table 4.25.
Independent Samples T-test Mean Scores of All Measures Regarding Type of University

	Type of University	N	*M*	*SD*
TEPAQ	State	273	3.94	.394
	Foundation	102	3.97	.450
ELTRI	State	273	3.57	.587
	Foundation	102	3.64	.664
TBS	State	273	1.78	.654
	Foundation	102	1.76	.740

As Table 4.26 below demonstrates, the results of the independent samples t-test analysis for all measures indicated that there is not a statistically significant difference between state and foundation universities regarding TEPAQ [*t*(373)=-648, *p*=.51.], ELTRI [*t*(373) = .-932, *p*=.35.], or TBS [*t*(373)=.186, *p*=.85.], scores. This result shows that the type of university where teachers work does not play any significant role on their professional autonomy, reflective practices, or burnout levels.

Table 4.26.
Independent Samples T-test Results of All Measures Regarding the Type of University

	t	*df*	*p.*	*M* Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
TEPAQ	-.648	373	.517	-.03086	.04761	-.12448	.06277
ELTRI	-.932	373	.352	-.06584	.07067	-.20481	.07312
TBS	.186	373	.853	.01465	.07882	-.14033	.16963

4.4. The Relationship among TEPAQ, ELTRI, and TBS Scales

In order to investigate the relationship among TEPAQ, ELTRI, and TBS, zero-order correlations among the variables were first investigated. Next, Structural Equation Modelling (SEM) via AMOS 5 program was conducted to confirm and account for the direction and strength of this relationship.

4.4.1. Zero-Order Correlations among Variables

In order to find if there is an existent linear relationship between the main variables and teachers' professional autonomy, their reflective practices, and burnout levels, Pearson Product-Moment Correlation analysis was conducted (Tabachnick & Fidell, 2007). As Table 4.27 below shows, TEPAQ and ELTRI are strongly and positively correlated with each other, whereas TBS has negative correlations both with TEPAQ and ELTRI, which indicates that although teachers' professional autonomy and their reflective practices are positively related to each other, burnout is negatively correlated with both of them.

Table 4.27.
Correlations among the Main Variables

	TEPAQ	ELTRI	TBS
TEPAQ	—		
ELTRI	.62**	—	
TBS	-.27**	-.24**	—

** Correlation is significant at the 0.01 level (2-tailed).

When the zero-order correlations among the variables in TEPAQ and ELTRI are further investigated, it can be seen in Table 4.28 that that all of the variables of teachers' professional autonomy and their reflective practices are significantly and positively correlated with each other – except for the component 'time management' in TEPAQ, which shows that there is no meaningful relationship between teachers' time management and their reflective practices. Another result worth mentioning is that the high correlation between teachers' professional autonomy and their reflective practice is apparent especially in the components 'cognitive' and 'meta-cognitive' of ELTRI and the components 'internal drives and motives' and 'capability' of TEPAQ. This result indicates that that there is a strong and positive link between teachers' capability and motives and their reflective practices. In other words, the more teachers are professionally autonomous, the more reflective they are.

Table 4.28.
Correlations among the Variables in TEPAQ and ELTRI

	Variables	ELTRI 1. Practical	2. Cognitive	3. Meta-Cognitive	4. Critical
TEPAQ	1. Internal Drives and Motives	.23**	**.54****	**.54****	.27**
	2. Capability	.24**	**.55****	**.43****	.20**
	3. Colleagues	.21**	.21**	.25**	.13**
	4. Time Management	-.02	.00	-.00	.01
	5. External Drives and Motives	.24**	.23**	.11*	.15**

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
Correlation coefficients above .40 are in ***bold***

Next, the relationship between TBS and TEPAQ was further examined with zero-order correlations among the variables. As it can be observed in Table 4.29, all the sub-factors of teachers' professional autonomy and their burnout are significantly and negatively correlated with each other – except for the component 'external drives in motives' in TEPAQ. It is important to note that the highest correlation coefficients between the variables in TEPAQ and TBS are in the component 'emotional breakdown'. That is, the teachers who are capable and internally motivated to develop themselves professionally feel less emotionally broken-down. Capability factor of TEPAQ also has a strong negative correlation with work-related feelings factor of TBS, which indicates that the teachers who feel themselves capable of developing themselves professionally, feel less stressed about work. Despite all the components of TEPAQ correlating negatively with burnout factors, there is only one positively-correlated variable: 'time management'. This result means that the more difficulty teachers have managing their time for their professional self-development, the more burnout they get. In summary, the overall direction of the correlations between TEPAQ and TBS indicates that teachers' professional autonomy positively contributes to lessen the feeling of burnout among teachers.

Table 4.29.
Correlation of TBS to TEPAQ and ELTRI

	Variables	TBS 1. Emotional Breakdown	2. Communicative Difficulties	3. Work-Related Feelings	4. Feelings about Students
TEPAQ	1. Internal Drives and Motives	**-.328****	-.219**	-.256**	-.181**
	2. Capability	**-.371****	-.241**	**-.344****	-.267
	3. Colleagues	-.142**	-.112*	-.116*	-.063*
	4. Time Management	**.317****	.096	.209**	.118*
	5. External Drives and Motives	-.038	.039	.038	.084
ELTRI	1. Practical	-.166**	-.076	-.110*	-.056
	2. Cognitive	**-.303****	-.136**	-.211**	-.204**
	3. Meta-Cognitive	-.228**	-.198**	-.156**	-.204**
	4. Critical	-.025	-.042	-.048	-.029

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
Correlation coefficients above .30 are written in ***bold***

Regarding the relationship between TBS and ELTRI, it is apparent from Table 4.19 that the direction of the correlation is negative with all the variables. The exception is the component 'critical' in ELTRI, which does not correlate significantly with any of the variables in TBS. When the highest correlation coefficient is examined among all the variables, it can be seen that the component 'cognitive' of ELTRI has the highest significant negative relationship to the component 'emotional breakdown' of TBS, which points out that the more teachers are engaged in professional development activities or events, the less burnout they get.

4.5. Evaluating Hypotheses: SEM Analysis and the BAR Model of Teacher Development

In the present study, on account of the fact that statistically significant relationships were found between the main variables of the study – namely teachers' professional autonomy, their reflective practices, and burnout levels – these relationships were turned into alternative hypotheses:

- H_A – 1) There is a positive bi-directional relationship between teachers' professional autonomy and their reflective practice.
- H_A – 2) There is a negative bi-directional relationship between teachers' burnout and their professional autonomy.
- H_A – 3) There is a negative bi-directional relationship between teachers' burnout and their reflective practice.

These hypotheses were then turned into a schematic model to be tested with the help of statistical analyses. We called this schematic model as the "BAR (Burnout-Autonomy-Reflection) model of teacher development" (Figure 4.1). The BAR model of teacher development comprises of three main variables, namely teachers' professional autonomy, their reflective practice, and burnout. Figure 4.1 presents the BAR model with its three main variables and the related concepts which constitute the main theoretical basis of the BAR Model. To explain it further, the BAR model of teacher development hypothesizes that teachers' professional development is dependent on the mutual effect of the interactions among three factors: (1) professional autonomy, (2) reflective practice, and (3) burnout. As regards teachers' professional development, the BAR model suggests that teachers' professional autonomy and reflection positively corroborates each other. That is, teachers' having motives, capability, time and their collaboration with their colleagues helps increase their reflective practice. In turn, their reflective practice which is manifested in practical, cognitive, meta-cognitive, and critical dimensions boosts their professional autonomy. In other words, when teachers think about their strengths and weaknesses as a teacher, when they read or study about recent developments in teaching or learning, when they attend seminars or conferences, or when they work with their colleagues through observations, and so on, their professional autonomy would also be positively affected as these practices would increase their capability, motivation, time management, and their collaboration with their colleagues as regards their professional development. The burnout component of the BAR model of teacher development is also considered as bi-directional it is hypothesized that burned-out teachers would presumably have a low profile regarding their professional autonomy and reflectivity. However, if teachers' professional autonomy and reflective practice with regard to their professional development function as a coping strategy for burnout as suggested in the literature (Kelchtermans & Strittmatter, 1999; Patterson, et al., 2004), then the model presupposes that being professionally autonomous and doing reflective practice would help teachers cope with the classic symptoms of burnout, which would, in turn, improve their professional development. The BAR model of teacher development was tested via Structural Equation Modelling (SEM) analysis as it is the most commonly used type of model testing in the literature, which is carried out with a statistical program called AMOS 5.

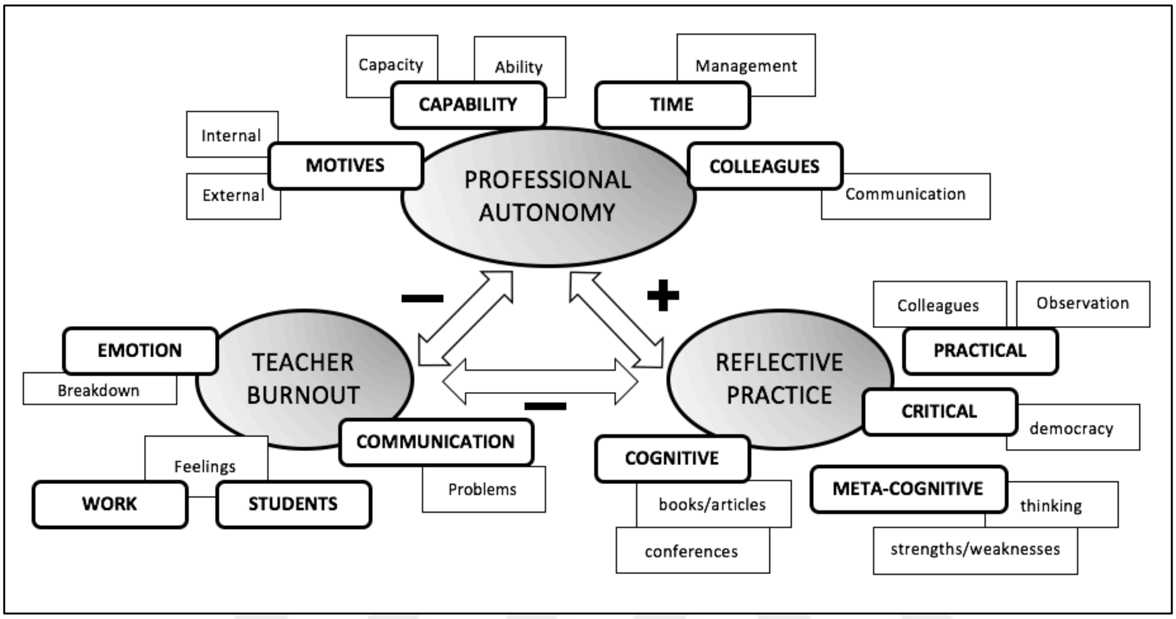

Figure 4.1. The BAR Model of Teacher Development hypothesized in the present study

4.5.1. Structural Equation Modelling (SEM)

Structural Equation Modelling (SEM) is an advanced method of statistical analysis in which a well-defined theoretical model of relations between the variables can be tested. In other words, the goal of SEM analysis is to determine the extent to which the theoretical model is supported by sample data (Schumacker & Lomax, 2004). In SEM analysis, there are two or more *observed* variables as indicators of an unobserved, underlying construct called a *latent* variable. In technical terms, the independent variables in SEM are referred to as *exogenous* variables, whereas the dependent variables are referred to as *endogenous* variables.

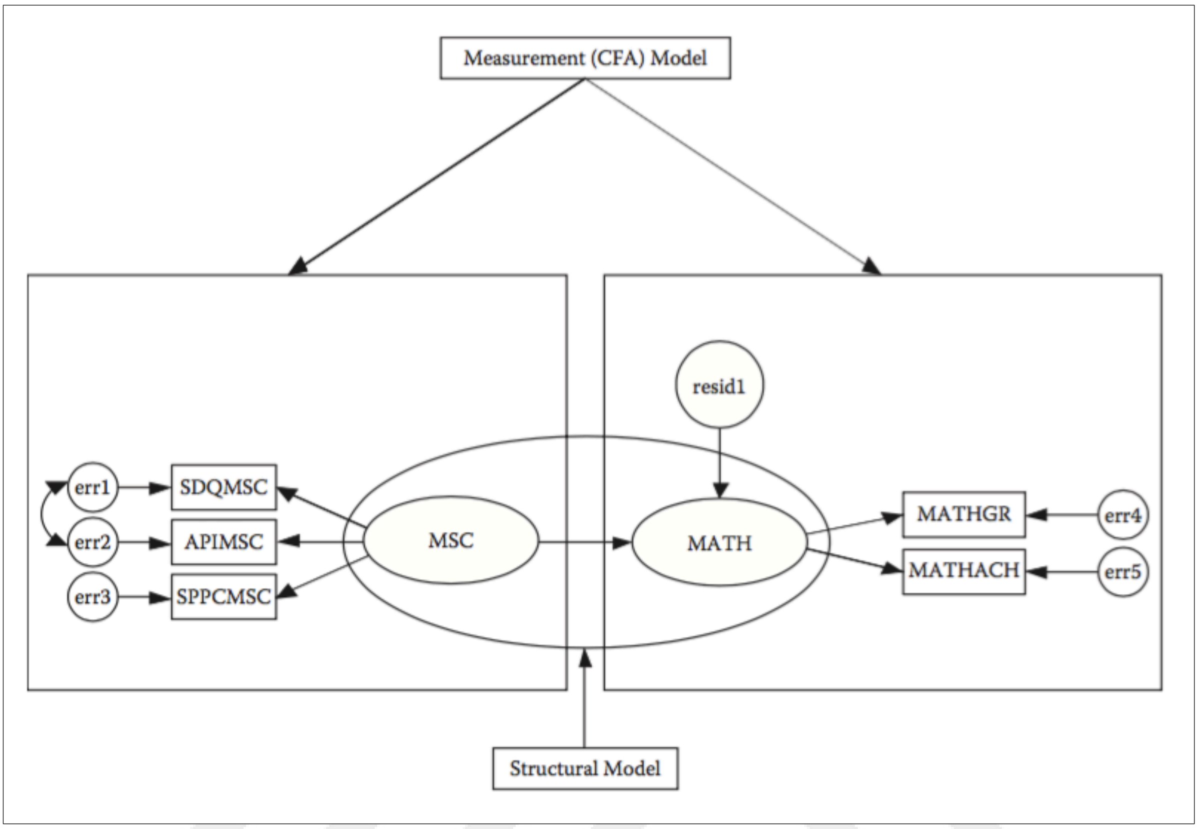

Figure 4.2. A general structural equation model demarcated into measurement and structural components (Byrne, B. M. (2016). *Structural equation modelling with AMOS: Basic concepts, applications, and programming.* Third Edition. New York: Routledge).

Bryne (2001) explains that the general SEM model can be decomposed into two sub-models: a measurement model, and a structural model (Figure 4.2). The measurement model defines relations between the observed and unobserved variables. In other words, it provides the link between scores on a measuring instrument (i.e., the observed indicator variables) and the underlying constructs they are designed to measure (i.e., the unobserved latent variables). The measurement model, then, represents the CFA model in that it specifies the pattern by which each measure loads on a particular factor. In contrast, the structural model defines relations among the unobserved variables. Accordingly, it specifies the manner by which particular latent variables directly or indirectly influence (i.e., "cause") changes in the values of certain other latent variables in the model (pp. 12-13). In a SEM model, these variables are represented by different shapes:

- circles (◯) or ellipses (⬭) represent unobserved latent factors
- squares (□) or rectangles (▭) represent observed variables,
- single-headed arrows (→) represent the impact of one variable on another,
- double-headed arrows (↔) represent covariances or correlations between pairs of variables.

The schematic representation of these models is termed as ‘path diagrams’ as they provide a visual representation of the relations between the variables.

The theoretical model to be tested in the present study includes three main variables as exogenous (independent) variables, namely TEPAQ, ELTRI, and TBS – as the relationship between them was hypothesized to be bidirectional. TEPAQ was represented by 5 latent variables, ELTRI was represented by 4 latent variables, and TBS was represented by 4 latent variables. These unobserved latent variables were measured with observed indicator variables. Figure 4.3 shows the hypothesized model in the present study.

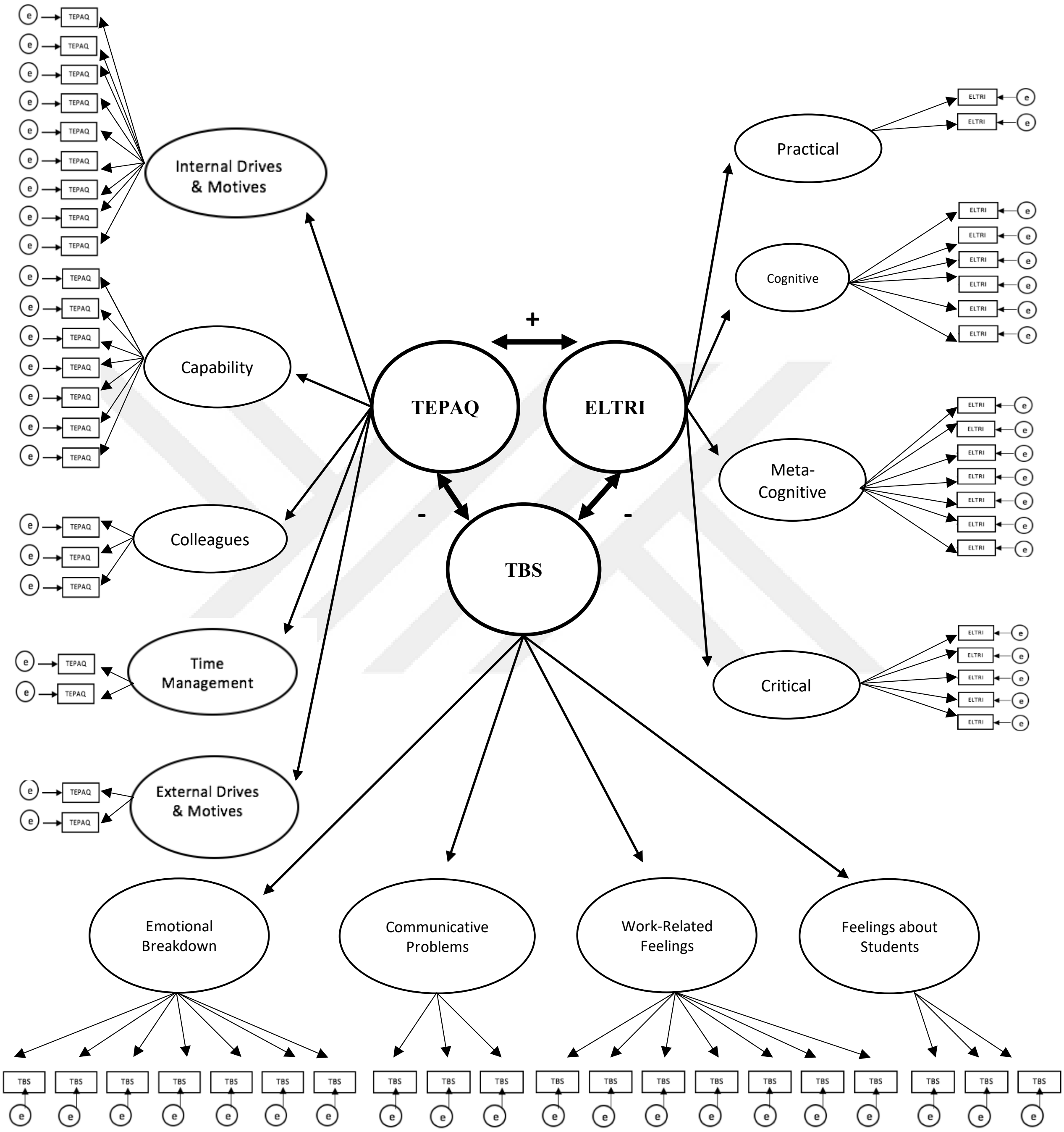

Figure. 4.3. Theoretical model of relations between the study variables

4.5.2. Testing the Hypothesized Model

The strategic framework for testing structural equation models is given by Jöreskog (1993), who distinguished among three different approaches to SEM, which he termed as 'strictly confirmatory' (SC), 'alternative models' (AM), and 'model generating' (MG). In the SC approach, the researcher postulates a single model based on theory, collects the appropriate data, and then tests the fit of the hypothesized model to the sample data. From the results of this test, the researcher either rejects or verifies the model; no further modifications to the model are made. In the AM approach, as the name implies, the researcher creates a limited number of theoretically different models alternative to each other and determines which model the data fit best. In the third approach, i.e. the MG, the researcher specifies an initial theoretical model. If the data do not fit this initial model at an acceptable model fit criterion level, a number of paths are added to or deleted from the model to arrive at a final best model. The goal in model generating is to find a model that the data fit well statistically, but that also has practical and substantive theoretical meaning. The process of finding the best-fitting model is also referred to as a specification search, implying that if an initially specified model does not fit the data, then the model is modified in an effort to improve the fit (Marcoulides & Drezner, 2001, 2003 – cited from Schumacker & Lomax, 2004, p. 80). Since the reviewed literature suggests no previous study to compare our hypothesized model on the relationship between teachers' autonomy, reflective practice, and burnout, the third approach (i.e. MG) was favored for the SEM analysis in the present study.

According to Bryne (2001), evaluation of model fit in SEM analysis should be based on several criteria that assess model fit from a diversity of perspectives. In particular, these evaluation criteria focus on the adequacy of (a) the parameter estimates, and (b) the model as a whole. Therefore, the model hypothesized in the present study was first analyzed for the parameter estimates, critical ratio, and statistical significance. Accordingly, two factors were removed to achieve a satisfactory level of fit. These factors were the 'time management' factor of TEPAQ, 'practical' factor of ELTRI. In addition, 6 items from ELTRI and 9 items from TBS were also discarded from the model because of their low regression weights.

As Bryne (2001) agrees, the primary task in this model-testing procedure is to determine the goodness-of-fit between the hypothesized model and the sample data. If the goodness of fit is adequate, the plausibility of the postulated relations among the variables is strengthened; if the fit is inadequate, the tenability of the postulated relations is rejected. Since it is an embedded part of SEM analysis, the most common goodness-of-fit statistics are similar to those in CFA analysis.

Table 4.30.
Goodness of fit indices suggested in Bryne (2001)

Indices	Abbreviations
$\chi 2$/df Ratio	CMIN/DF
Root-Mean-Square Residual Index	RMR
Goodness-of-Fit Index	GFI
Adjusted Goodness-of-Fit Index	AGFI
Parsimony-adjusted GFI	PGFI
Normed Fit Index	NFI
Comparative Fit Index	CFI
Relative Fit Index	RFI
Incremental Fit Index	IFI
Tucker-Lewis Index	TLI
Parsimony ratio	PRATIO
Parsimony-adjusted NFI	PNFI
Parsimony-adjusted CFI	PCFI
Root Mean Square Error of Approximation	RMSEA
Hoelter Index	HOELTER

Byrne, B. M. (2001). Structural equation modeling with AMOS, EQS, and LISREL: Comparative approaches to testing for the factorial validity of a measuring instrument. *International Journal of Testing, 1*(1), 55-86.

When reporting these goodness-of-fit statistics, Bryne (2001) states that although an array of these indices provides a good sense of how the hypothesized model fits the data, the general tendency is to favor a selective approach. For example, in a number of studies in which they studied with teachers on issues such as teacher stress, teacher burnout, teacher job satisfaction, teacher self-efficacy, and so on, Skaalvik and Skaalvik (2007, 2009, 2010, 2013, 2016) reported $\chi 2/df$ ratio, TLI, CFI, IFI and RMSEA values to evidence their model fit with SEM analyses. Similarly, Martin, et al., (2012) studied on teacher burnout, and they reported $\chi 2$, *df*, TLI, CFI, and RMSEA values to assess their model fit. In their study on burnout and work engagement among teachers, Hakanen et al. (2006) reported $\chi 2$, *df*, GFI, CFI, NFI, TLI, and RMSEA values to prove their model fit.

In accordance with the reviewed literature, in the present study, we also used well-established indices, such as the comparative fit index (CFI), the incremental fit index (IFI), the Tucker–Lewis index (TLI), and the root-mean-square error of approximation (RMSEA), as well as the chi-square and degrees of freedom ratio ($\chi 2/df$). According to Schumacker and Lomax (2004), Chi-square ($\chi 2$) is the only statistical test of significance for testing the theoretical model, and if its ratio to degrees of freedom (df) is below 2, it is accepted as a good fit to the data (Tabachnick & Fidell, 2001). For the CFI, IFI, and TLI indices, values .90 or greater are typically considered acceptable, and values greater than .95 indicate good fit to the data (Bollen, 1989; Byrne, 2001; Hu & Bentler, 1999). For well-specified models, a RMSEA value of .06 or less reflects a good fit (Hu & Bentler, 1999).

Table 4.31.
Goodness-of-fit Indices of the Hypothesized Model in the Present Study

$\chi 2/df$	RMSEA	CFI	IFI	TLI	GFI	AGFI
1.9	.49	.90	.90	.90	.82	.80

GFI= Goodness-of-Fit Index; AGFI= Adjusted Goodness-of-Fit Index; RMSEA= Root Mean Square Error of Approximation; TLI= Tucker-Lewis Index; IFI= Incremental Fit Index; CFI= Comparative Fit Index; $\chi 2/df$= Chi-square/Degrees of freedom ratio

In the present study, the three main variables, namely professional autonomy, reflective practice, and burnout are entered as exogenous variables into the SEM model as a bidirectional relationship is hypothesized between them. As Table 3.31 shows, the hypothesized model in the present study had a good fit to the data with a $\chi 2/df$ ratio of 1.9, which is adequate on the basis of Kline's (2001) rule of values of less than 3 being considered good fit to the data. The goodness-of-fit indices, namely TLI, IFI, and CFI are all .90, which is also accepted as good fit to the data by Tabachnick and Fidell (2001) and Bryne (2001). The GFI and AGFI values are very close to the accepted threshold value of .90, with .82 and .80, respectively. The RMSEA value, which is recognized as one of the most informative criteria in covariance structure modeling (Bryne, 2001), is below .50, indicating a good fit (Browne & Cudeck, 1993). Overall, these results indicate that since the hypothesized SEM model is found to be significant and to have a good fit to the data ($\chi 2/df$=1.9, p.=.00, TLI=.90, IFI=.90, CFI=.90, RMSEA=.49), all three alternative hypotheses are accepted, and the theoretical model representing the bidirectional relationships between TEPAQ, ELTRI, and TBS was validated. The alternative hypotheses are presented below and the validated SEM model is presented in Figure 4.4.

- H_A – 1) There is a positive bi-directional relationship between teachers' professional autonomy and their reflective practice.
- H_A – 2) There is a negative bi-directional relationship between teachers' burnout and their professional autonomy.
- H_A – 3) There is a negative bi-directional relationship between teachers' burnout and their reflective practice.

When the correlation between the variables is further examined in the SEM model, it can be seen that there is a very strong and positive correlation between TEPAQ and ELTRI ($r. = .95$, $p. < 01$), which shows that teachers' professional autonomy and their reflective practices affect each other strongly and positively. That is to say, if teachers are professionally autonomous, it helps them to practice more reflectively; and in turn, teachers' reflective practice boosts their professional autonomy. The model also shows that the relationship of TBS to TEPAQ is strong but negative ($r. = -.50$, $p. < 01$) and similarly, there is also a moderate negative relationship between TBS and ELTRI ($r. = -.38$, $p. < 01$). These results indicate that teachers' feeling of burnout negatively affects their professional autonomy and their reflective practices. Since the SEM model also confirmed a bidirectional relationship, it can be further inferred from this result that the more teachers feel professionally autonomous and the more reflective they are, the less burnout they get. It should be kept in mind that although SEM analysis tests how well a theoretical model implying causal relations between the variables fits the data, rigid causal interpretations should be avoided. The statistical analysis merely shows the strength of relations among the variables when assuming a causal direction. The validated SEM model is presented in Figure 4.4.

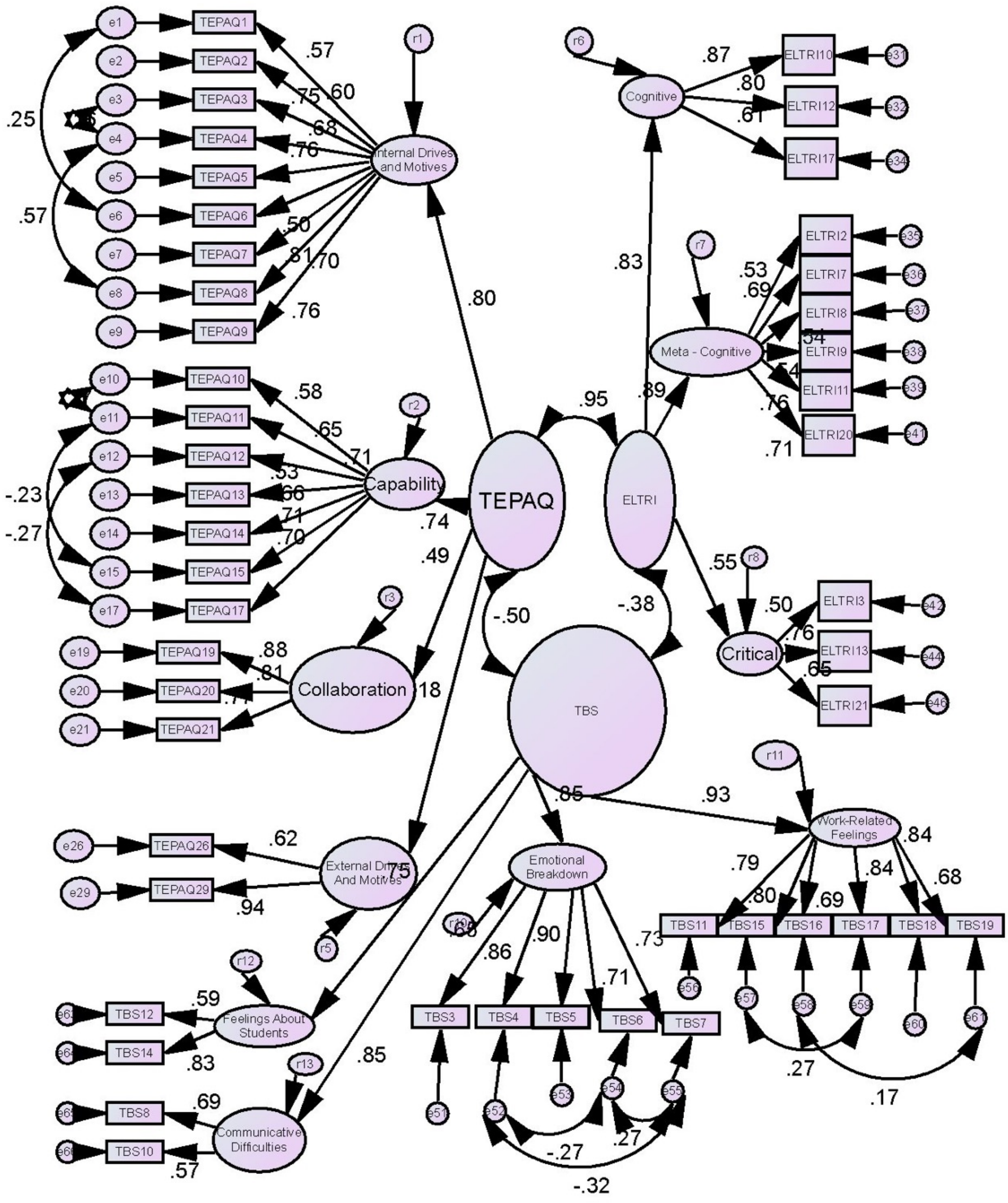

Figure 4.4. The SEM model validated in the present study

CHAPTER V

DISCUSSION

"Schools can become cultures where youngsters are discovering the joy, the difficulty, and the excitement of learning as we adults are rediscovering the joy, the difficulty, and the excitement of learning. We are all in it together – a community of learners."

Roland Barth, American Educationalist

5.0. Introduction

In this chapter, firstly, the data analysis results related to the three main variables, namely teachers' professional autonomy, their reflective practice, and burnout will be discussed. Secondly, the relationship among these variables will be addressed in detail by referring to the related studies, theories, and models in the reviewed literature.

5.1. Teachers' Professional Autonomy

In the present study, teachers' professional autonomy is defined as "*teachers' capability, motives, and time to develop themselves professionally in collaboration with their students and colleagues*". This term draws on McGrath's (2000) definition of 'self-directed professional action' and Smith's (2003) concept of 'teacher-learner autonomy'. In other words, this study defines a professionally autonomous teacher as the one who is internally or externally driven and who is capable of developing professionally by managing his/her time to do so in collaboration with his/her students and colleagues. In order to measure teachers' professional autonomy, an instrument (i.e. TEPAQ) was created from scratch, and it went through numerous fundamental stages to ensure its reliability and validity as discussed in the previous chapters.

Since teachers' professional autonomy is a term which is originally coined in this dissertation from the perspective of professional development, there are, to the best of our knowledge, no studies to compare our results with. Nevertheless, the data gathered through TEPAQ give a substantive idea about Turkish EFL teachers' professional autonomy regarding a number of aspects. First of all, the data show that the teachers are capable of developing themselves professionally as the highest mean score belongs to the capability factor among other 4 factors in TEPAQ (M=4.30, SD=.52). Being one of the main components of teachers' professional autonomy, capability includes both teachers' capacity and ability to develop themselves professionally. These two similar terms are related to teacher-learning in many aspects. For instance, Little (1991) emphasizes that learner autonomy needs to be seen as a *capacity* for taking control of learning which can be developed and deployed in a number of ways and situations. Similarly, Tort-Moloney (1997) defines an autonomous teacher as the one "who is aware of why, when, where, and how pedagogical skills can be acquired in the self-conscious awareness of teaching practice itself" (p. 51). This awareness might be recognized as a capacity for teachers to learn (or continue learning) to better their teaching. Smith (2000) defines teacher-learner autonomy as the "ability to develop appropriate skills, knowledge and attitudes for oneself as a teacher, in cooperation with others" (p. 9). Explaining the characteristics of a post-method teacher, Kumaravadivelu (2001) emphasizes the importance of *ability* by stating that that "teachers can become autonomous only to the extent they are willing and able to embark on a continual process of self-development" (p. 549). Here, it is seen that being a term which brings 'ability' and 'capacity' under the same roof, teachers' *capability* plays a great role in their professional autonomy, and the data of the present study show that Turkish EFL teachers are capable of developing themselves professionally.

The second major component of teachers' professional autonomy is teachers' drives and motives to continue their professional learning. In this study, these drives and motives are defined in two different but complementary ways: the teachers could be driven 'internally' or 'externally' to develop themselves. Whereas the external drives stand for teachers' financial concerns such as salary or promotion, their internal drives refer to their willingness to develop themselves professionally. Willingness is such an important factor for teachers' professional autonomy that even being capable might be meaningless without willingness. The reason is that although a teacher might be capable, not being willing enough to keep learning about their profession would result in no practical or observable behavior related to their self-development. Therefore, only exposing teachers to professional development activities would not necessarily result in desired outcomes on the part of the teachers. Many studies, as reviewed by Wideen, Mayer-Smith, and Moon (1998), for instance, show that short-term interventions in pre-service teacher education programs had very little effect on the teaching practices of beginning teachers. Some recent studies also found professional activities to be ineffective or to be perceived as irrelevant by teachers (Lieberman & Pointer Mace, 2008; Opfer & Pedder, 2011). The reason for this tendency might be that we do not 'necessarily' learn from experience. In other words, teachers might *experience* new practices as a part of PD training, but experiencing does not guarantee that teachers will *act* upon these experiences in their teaching (Smith, 2003). Here it can be seen that without internal or external drives and motives, it is quite unlikely for teachers to develop themselves professionally. It can be said that Turkish EFL teachers who participated in the present study have more internal drives (M=4.24, SD=.65) than external drives (M=2.96, SD=1.12). In fact, the teachers state that they 'enjoy' developing themselves professionally (M=4.53, SD=.74), which means that the participant teachers in this study are more internally driven (rather than externally) to develop themselves professionally.

As teachers' professional autonomy is theoretically based on the sociocultural learning theory suggested by Vygotsky, the third factor, namely 'collaboration with colleagues' represents the theoretical framework of teachers' professional autonomy. The Zone of Proximal Development (ZPD) of sociocultural learning theory suggests that we learn (i.e. scaffold) by moving from what we already know and do to what we *can* learn and do with the help of more knowledgeable peers around us. It follows this that collaborating with their colleagues would help teachers develop themselves professionally. Mohr et al., (2004) agree that autonomous teachers do not necessarily have to seek out knowledge only from professional literature, books, journals, etc., but they can also get help from the experiences and knowledge of others including their peers. However, as the data show, the participant teachers in this study do not look so confident when it comes to working with their colleagues (M=3.32, SD=.43). In fact, they mostly state that they do not have any colleagues whom they can consult when they need help about their professional development (M=2.17, SD=1.14). For instance, most participant teachers fail to agree with the items about whether they can work with their colleagues (M=3.92, SD=.98) or they like to learn from their colleagues to develop their teaching (M=3.88, SD=.98).

On the one hand, it can be argued that Turkish EFL teachers need to build more close relationships with their colleagues to increase their professional autonomy. As Goodwyn (1997) clearly explains, teachers need to work closely with each other and with "other colleagues who can stimulate and sustain professional development" (p. 116). On the other hand, it should be acknowledged that lack of collaboration or lack of support from colleagues might also help teachers to gain professional autonomy. In his study, Xu (2015), for instance, examined the impact of collaborative lesson preparation on the development of their teacher autonomy, and the joint impact of collaboration and autonomy on their professional development through a 3-year case study with four novice EFL teachers in China. As Xu (2015) explains, one of these teachers could not get any benefit from 'collaborative lesson preparation activities' at her institution as she felt lack of real collaboration and support from the senior colleagues. Because of this, she had to learn how to develop her teaching on her own by trial and error as she gained experience in teaching. At this point, it can be argued that there are two sides of the same coin when it comes to collaboration and teachers' professional autonomy. Although sociocultural learning theory explains learning by *scaffolding* as one works with more knowledgeable peers, the data of the present study show that teachers' professional autonomy can also manifest itself in an individual manner since teachers might have to (or deliberately choose to) move along on the professional development continuum on their own.

Lastly, in terms of time management as a component of teachers' professional autonomy, the data showed that the teachers are actually willing to do more self-development activities, but tend to agree that their workload is heavy and they have very little time outside the school to develop themselves professionally. For teachers, having enough time to develop themselves professionally is of utmost importance because not being able to do so might cause teachers to slowly move away from continuing their teacher-learning. In her study, for example, Peters (2004) carried out the "The Innovative Links Project" which was an action research-based professional development project initiated in Australia as a National Professional Development Program. One of her findings was that time pressure and workload was one of the reasons which made teachers' job difficult in terms of carrying out their action research studies. Peters (2004) explains that lack of available time and busy schedules prevented all participating teachers from fully engaging in some project activities. This study also found similar results that Turkish EFL teachers need more time to be more professionally autonomous.

5.1.1. The Relationship between Teachers' Demographic Characteristics and Their Professional Autonomy

Demographic variables – namely, teachers' gender, their level of education, work experience, and the type of university they work in – were investigated in relation to their professional autonomy. First, it was found that there is a difference in teachers' professional autonomy regarding their gender. It was evidenced that female teachers are more professionally autonomous than male ones. Secondly, the data revealed that the teachers with M.A and Ph.D degrees are significantly more professionally autonomous than those with only B.A degrees. This result is in line with that of Protherough and Atkinson (1991) in which they found out that over 52% of teachers who were nominated by their peers as 'particularly effective English practitioners' already had a higher degree or advanced diploma (cited in Goodwyn, 1997, p. 130). Such a close link between teachers' professional autonomy and level of education is thus reasonable as teachers who pursue higher academic degrees are likely to have enough drives, motives, capability, or time to continue their learning, which indeed shows that they are more professionally autonomous than those who did not choose to do so.

Third, teachers who have been teaching for more than 10 years were found to be less professionally autonomous than the teachers who have recently started teaching. This result is reasonable as teachers who have long been in the profession might have lost their drives and motives to keep developing themselves professionally when compared to novice teachers who have recently begun teaching and who are enthusiastic about their profession as they are in the early steps of their career. Barth (2001) explains this change as the following:

> The learning curve of the beginning teacher remains high for two or three years. Then something curious seems to happen. The teacher finds some things that don't work very well and scraps them. And they find some things that do work well, and they enshrine them. It's Halloween - out comes my Halloween folder... Once our practice is committed to a folder, once routinization and repetition replace invention, learning curves plummet. (pp 21-22)

This "routinization" might be the reason why we found that teachers with more than 10 years of experience were less professionally autonomous than the novice ones. Since the participant teachers in this study were employed at preparatory schools of universities, this routinization becomes more apparent. In these schools, most students start the term as zero-beginners, and they can only reach the intermediate or upper-intermediate level at the end of one-year education. In addition, in most preparatory schools, teaching materials (i.e. course books, writing packs, worksheets, etc.) are the same or very similar in every following year, which gives teachers no reason to keep learning about teaching. Yıldırım (2003), for example, analyzed the attitudes and practices of Turkish teachers with regard to their teaching programs and identified that teachers excessively rely on the curriculum and textbooks in their teaching activities because they are asked to meet fully the predetermined curriculum requirements, which means that they have little autonomy in determining the content of the teaching activities. As Vorkink (2006) agrees, “compared with Europe and most of the world, Turkey′s public schools have the least autonomy over resources, staff deployment (at the school), textbook selection, allocation of instructional time, and selection of programs offered” (p. 17). Therefore, when teachers are deprived of instructional autonomy in the classroom, this might leave them no room to develop themselves professionally as they might believe that developing professionally would result in no change on the part of teachers and students as well. The present study found similar results as teachers who work as preparatory school instructors with more than 10 years of teaching experience are less professionally autonomous than their novice colleagues which shows that they have gradually run out of reasons to develop themselves professionally year after year in teaching.

Vieira (1999) agrees that the way which would lead teachers to professional development is to some extent possibly by granting them autonomy in the classroom. As she explains:

> “Liberation” – which means that teachers become the authors of their own practice and professional development, as well as active agents of social reconstruction – can be enhanced through the enactment of two basic criteria: (1) teachers are viewed as active participants in the construction of the curricular content of training programs; and (2) an inquiring attitude is fostered towards existing institutionalized arrangements.

On the other hand, Anderson (1987) believes that “teacher autonomy is earned, not given” (p. 370). He even argues that teachers’ instructional autonomy in the classroom should be lessened if the desire is to achieve autonomy of the teachers as professionals. At this point, McGrath’s (2000) ideas gain importance, as he suggests that teachers need to understand the constraints upon their practice, but rather than feeling disempowered, they need to “exercise independent judgement in order to establish a principled strategy which may involve compromise and negotiation as well as determined autonomous action” (p. 201). It is understood that the impulse which teachers need to break free from the limits on their autonomy in the classroom, they have to depend on their professional autonomy.

Another finding of the present study is that the type of university where teachers work does not have any significant effect on their professional autonomy. Type of university was one of the variables investigated in this study because it was hypothesized that foundation universities might provide their instructors with better professional development opportunities which would make teachers more aware of the importance of teacher-learning. As Usma (2007) concluded in her study, teachers report higher levels of sense of autonomy when the schools where they work or the professional endeavors they have been engaged in provide enough opportunities for decision making and risk taking. However, the data of the present study found no such effect of the type of university on teachers' professional autonomy.

When interpreting any results regarding teacher autonomy, it is important to remember that autonomy is a matter of 'level' (Benson, 2006) or 'degree' (Little, 1990; Nunan, 1997; Sinclair, 2000). Therefore, when discussing the data coming from TEPAQ, it can be concluded that Turkish EFL teachers are professionally autonomous at a medium high level with an overall mean score of M=3.95 (SD=.40).

5.2. Teachers' Reflective Practice

Reflection is a fairly broad term which -on the one hand- simply means thinking about something, but on the other hand, it stands for a well-defined and crafted practice that carries very specific meaning and associated action (Loughran, 2002). There are two most widely acknowledged versions of reflection, suggested by Schön (1983, 1987), as *reflection-in-action* and *reflection-on-action*. Reflection-in-action refers to the spontaneous decisions individuals make on their feet when they come across surprising situations, whereas reflection-on-action refers to the practice of asking questions and evaluating the process after the event takes place. Van Manen (1991) suggests a third type of reflection, i.e. *reflection-for-action*, which can be defined as reflection before action or anticipatory reflection. In other words, reflection-for-action refers to the reflective practices of teachers as they consider possible problems or situations that they may encounter in their future teaching. In the present study, a reflective teacher is defined as the one "who critically examines his/her practices, comes up with some ideas as how to improve his/her performance to enhance students' learning, and puts those ideas into practice" as suggested in Akbari et al.'s (2010) framework (p. 212), and English Language Teaching Reflection Inventory (ELTRI) developed by Akbari et al., (2010) was used in order to gauge teachers' reflective practice. Since ELTRI was construct-validated by Yeşilbursa (2013) in the Turkish context with EFL teachers who shared similar characteristics with those in the present study, this validated version was preferred to be used in the actual data collection of the present study.

ELTRI is an instrument which has 4 factors: (1) practical; (2) cognitive; (3) meta-cognitive; and (4) critical, and it measures how often teachers do these reflective practices with 21 Likert-type items. As the first factor of ELTRI, the practical component asks teachers about their observation practices. The data of the present study indicated that teachers *rarely* have a practice of observing their colleagues or being observed by them (*M*= 2.68, *SD*=1.22). This result is not surprising because of several reasons. First, observation is *not* a must practice for instructors working at preparatory schools. Second, in-service training programs which require teachers to observe and be observed by their colleagues last for one or two terms at the most and thus teachers do not continue this practice of observation. Another reason might be that teachers are usually not quite comfortable being observed by their colleagues. In her study, Postholm (2008) also found similar results. Carrying out a research and development project in a Norwegian lower secondary school, Postholm (2008) found out that letting other teachers observe their teaching and discuss the teaching process afterwards obviously challenged the teachers' self-confidence. Postholm (2008) argued that despite being well qualified and eagerly engaged in their job, teachers may be uncertain in their profession and thus find it as a challenge to let other teachers put their teaching skills under scrutiny, which might be another reason why Turkish EFL teachers in this study are not keen on doing observations as a reflective practice.

This result is also in line with the previous finding about teachers' professional autonomy in this study, which showed that teachers do not have a close relationship with their colleagues in terms of their professional development, which makes it more apparent that teachers do not benefit from each other in terms of observing them or being observed by them as a reflective activity. Similar results were found by Kwakman (2003), who concluded in her study that teachers *do* reflect but not in ways in which they make use of explicit feedback from colleagues or students (emphasis added). In their study, Xu, Li, and Curtis (2015) also used ELTRI to measure reflective practices of EFL teachers in China, and they also found similar results in terms of practical component, which they attributed to the teachers' heavy preparation, teaching and marking workloads. In their case study, Levine and Marcus (2007) worked with six high school teachers with an aim to see whether their collaborative work would help achieve more teacher-learning. However, they similarly concluded that the participant teachers did not seem to enjoy and were often reluctant to assess or comment each other's work.

The second component of ELTRI is the cognitive factor which is concerned with teachers' attempts aimed at professional development. These attempts might include conducting small-scale classroom research projects like action research, attending conferences and workshops related to their field of study, reading the professional literature are among the behaviors included in this domain, and so forth (Akbari, 2010). The data of the cognitive component overall revealed that Turkish EFL teachers *sometimes* do these professional development activities (M= 3.52, SD=.87). In particular, it was found that they *often* think of using or introducing new techniques in their classrooms, but *rarely* think of writing articles based on classroom experiences. When it comes to other professional development activities, such as participating in workshops or conferences, reading books or articles, looking at journal articles or searching the internet to see the recent developments in teaching, the data showed that teachers *sometimes* do them. These results are in line with those found in Kömür and Gün's (2016) study which they carried out with 37 English teachers working in the state schools in the Muğla province of Turkey. In their study, they also found that teachers *sometimes* do these professional development activities as a reflective practice (M= 3.30, SD=.71). It is interesting to note that the EFL teachers in Kömür and Gün's (2016) study are the teachers who work in the schools of the Ministry of Education, whereas in our study, the participants are instructors working at universities which are under the roof of Council of Higher Education. This result shows that despite being an academic context, working in a university does not necessarily enhance the motives of teachers to take part in professional development events or carry out professional development activities. The reason might be that since preparatory schools where the participant teachers in this study work are 'schools' – not 'faculties' – the teachers may not be feeling themselves responsible of making any academic endeavors such as reading the literature, doing research, or writing articles. Ironically enough, most language preparatory schools of universities are regarded as a continuation of high school, which might constitute a deterrent factor for instructors so as not to develop themselves professionally as a part of their reflective practices. As mentioned before, the fact that teachers work with the same profile of students every year with similar teaching materials, teaching the same lesson content from elementary up to upper-intermediate level of English might give them no reason to keep developing themselves as a reflective activity – despite the very fact that they are ‘academicians’ who work as instructors at universities.

The third component of ELTRI is the Meta-Cognitive factor, which deals with teachers and their reflections on their own beliefs and personality, the way they define their practice, and their own emotional make up, and so on. (Akbari, et al., 2010). In more technical terms, “metacognition includes both knowledge of one’s knowledge, processes, cognitive and affective states, and the ability to consciously and deliberately monitor and regulate one’s knowledge, process, and cognitive and affective states” (Hacker, 1998, p. 11). In the present study, the data revealed that meta-cognitive factor is the most frequently reflected factor by the participant teachers (*M*= 4.05, *SD*=.63). In particular, the teachers state that they almost always think about their strengths and weaknesses as a teacher (*M*= 4.35, *SD*=.70), the meaning of their job as a teacher (*M*= 4.01, *SD*=1.02), and how their teaching philosophy affects their teaching (*M*= 4.12, *SD*=.91). Due to the fact that the highest mean score among the factors of ELTRI belongs to the meta-cognitive factor, it can be concluded that the participant teachers in this study almost always examine their teaching practices critically. This result is similar to those found in Kömür and Gün’s (2016) study in which they came up with the results that Turkish EFL teachers are almost always reflective in terms of meta-cognition. Interestingly, in spite of the fact that their participant teachers were also working at universities and colleges at the time of data collection, Chinese EFL teachers in Xu’s (2015) study were found to be far less reflective in terms of meta-cognition. According to Akbari et al.’s (2010) definition of reflective teacher, ‘critically examining one’s practices’ is the first step. If reflecting meta-cognitively includes critically examining one’s own practices, it can be argued that without meta-cognition, it would not be possible for teachers to benefit from their reflective practices. As Balçıkanlı (2011) agrees, without knowing how to arrange, regulate, and evaluate our own learning activities, autonomous learning is highly unlikely to take place.

The final component of ELTRI, the critical factor, measures how often teachers reflect critically by preoccupying themselves with the socio-political aspects of pedagogy, political significance of their practice and topics related to race, gender and social class, etc. (Akbari, et al., 2010). It is apparent from the data of the present study that the participant teachers *sometimes* reflect critically on these issues (*M*= 3.39 *SD*=.81). When the results are examined in more detail, it can be observed that teachers *often* try to promote tolerance and democracy in their classes and in the society in general (*M*= 4.07 *SD*=.95). However, when it comes to the question of whether they think about the political aspects of their teaching and the way they may affect their students' political views, it can be seen that teachers *rarely* give a thought to these aspects of reflective practice (*M*= 2.70 *SD*=1.36). This result is quite understandable since the *status quo* of the political atmosphere in Turkey might cause teachers refrain from touching upon political aspects of teaching as they practice reflectively. This result contradicts those found by Kömür and Gün (2016) in their study as the Turkish EFL teachers who participated in their study were found to be more eager to reflect critically on such topics. Interestingly enough, Chinese EFL teachers in Xu's (2015) study had a similarly low practice of critical reflection as we found in the present study. Since the participants in the present study and in Xu's (2015) study work at universities or colleges, it can be argued that working at higher education institutions might cause teachers to have more reserved opinions about political reflections than their counterparts who work at secondary or lower-secondary schools. The reason might be that because universities and colleges are the contexts which are more prone to political unrest as the university students tend to be more informed about politics, and some of them might even hold intolerant or aggressive political views, which summarizes the possible reason why Turkish EFL teachers in the present study were found to avoid political aspect of reflective practice.

5.2.1. The Relationship between Teachers' Demographic Characteristics and Their Reflective Practice

The overall data coming from ELTRI indicated that the participant teachers *sometimes* practice reflectively (*M*= 3.59 *SD*=.60). When the demographic characteristics of the participant teachers are further examined in detail, it can be observed that the type of university does not have any significant effect on teachers' reflective practice. This means that foundation or state universities in Turkey do not differ in terms of providing their instructors with more time, space, or opportunities to encourage them to practice reflectively. As another demographic feature, gender was shown to have an effect on teachers' reflective practice. Female teachers were found to be more reflective than male ones. It is quite difficult to compare this gender difference with other studies as most of the recent studies on reflective teaching are qualitative case studies carried out with a very small number of teachers as participants (Finefter-Rosenbluh, 2016; Hoekstra & Korthagen, 2011; Körkkö, Kyrö-Ämmälä, Turunen, 2016; Meijer, et al., 2009; Postholm, 2008; Wolfensberger, Piniel, Canella & Kyburz-Graber, 2010).

Furthermore, it could be hypothesized that teachers with more working experience would be more reflective as reflection is developmental in nature (Hatton & Smith, 1995). This developmental nature implies that like many other practices, teachers might get better and better at reflection as they keep on practicing reflectively. However, the data of the present study found no significant relationship between teachers' work experience and their reflective practice. This result contradicts those found by Krull, Oras, and Sisask (2007) and Tsang (2003). Krull et al. (2007) found in their study that experienced teachers are more reflective than novice ones. Similarly, Tsang (2003) worked with six pre-service EFL teachers for a period of 12 months, and they found that the teachers became more reflective towards the end of the course. The reason why we found no such difference between novice and experienced EFL teachers in this study might be the changing nature of teacher training programs. In Turkey, it is known that current teacher education programs of universities which were put into effect after the 1990s take into account the importance of reflective practice and its influence on pre-service teacher development (Üstüner, 2004). Şimşek and Yıldırım (2001) explain that after an agreement was co-signed by the Minister of National Education and the president of Higher Education Council in 1998, pre-service teachers in Faculties of Education are exposed to a considerable amount of teaching practice in 4 years:

> Within the current partnership program, schools receive student teachers in their first year of training, four hours a week for one semester to provide them with initial experiences in schools. Students try to understand how the schools function in terms of administration and educational activities and get a sense of the school through a prospective teacher's perspective. In the second and third years of the teacher training program, student teachers visit the schools as part of various educational courses (e.g., instructional planning and evaluation, classroom management, teaching methods, educational technology and instructional material preparation) with an intent to apply and assess what they learn in these courses in the real school context with experienced teachers. In the first semester of the final year of teacher training program, student teachers visit the schools 4-8 hours a week again to apply various concepts and techniques they acquired educational courses and to do small scale teaching. In the final semester they actually spend 12 hours a week, which is more than half of the regular teaching load of a full-time teacher (pp. 20-21).

Previous research evidences that such practicum sessions (Pence & Macgillivray, 2008; Turnbull, 2005) and tutoring discussions (Orland- Barak & Klein, 2005; Van Woerkom & Croon, 2008) enhance the development of student teachers' reflective skills (cited in Körkkö et al., 2016). The fact that Turkish pre-service EFL teachers are exposed to such intensive teaching experiences for four years, it can be argued that this helps them to graduate from the teacher education programs equipped with adequate training on reflective practice before they start their professions as novice teachers. This might explain the reason why we found no significant difference between novice and experienced teachers in terms of their reflective practices.

As another demographic variable, level of education was found to have a significant effect on teachers' reflective practices. In particular, it was seen that having a Ph.D degree makes a difference in terms of reflection as compared to having B.A and M.A degrees. At this point, it would be noteworthy to remember that the data of the present study previously evidenced that having both M.A and/or Ph.D degrees had an effect on teachers' professional autonomy. However, regarding reflective practice, there was no significant difference between having B.A or M.A in terms of practicing reflectively. The reason for this dissimilarity might be that reflective practice is indeed: *difficult*. It is exhausting, time consuming, and as Goodwyn (1997) agrees, "there is little reward for being reflective, except the intrinsic value to the individual" (p. 118). When compared to getting an M.A degree, earning a Ph.D degree takes at least four years, and unlike M.A, a comprehensive exam – which consists of both oral and written steps and which is regarded as one of the most difficult exams of the academy – is obligatory. What is more, a Ph.D dissertation necessitates doctoral candidates to learn more and study harder than they did when writing an M.A thesis. In short, it can be argued that – being quite different from getting an M.A degree – earning a Ph.D degree would doubtlessly give teachers more reasons, more motives, more chances; and it would provide them with more resources, more materials, and more opportunities to continually reflect on their teaching and their learning practices.

5.3. Teacher Burnout

In the present study, Teacher Burnout Scale developed by Richmond et al., (2001) was used in order to measure teacher burnout. Richmond et al., (2001) define teacher burnout as "a process where a teacher begins to gradually but surely feel fatigued, weary, tired, discouraged, uncomfortable, disenfranchised, disengaged, hostile, and inadequate about her or his job position" (p. 207). Originally, TBS is a scale which determines teachers' burnout levels. In the present study, TBS was also statistically factorized; thus it also gives information about teachers' burnout levels about their: (1) emotional breakdown, (2) communicative difficulties, (3) work-related feelings, and (4) feelings about students.

The data of the present study show that Turkish EFL teachers working as instructors in preparatory schools of state and foundation universities in Turkey have low burnout levels (M= 1.77 SD=.67). This result is in line with those found in Güneş's (2014) study. In her thesis, Güneş (2014) worked with 507 Turkish EFL teachers from schools of all levels (from primary school to university), and she found that they have low levels of burnout. Cephe (2010) found mixed results in his study with a similar group of participants. Using TBS to measure burnout levels of 37 English Instructors working at an English Preparatory School of a Turkish University, Cephe (2010) discovered that the half of the instructors (51.3%) were prone to burnout; whereas the other half (48.6%) displayed a high degree of burnout. In a similar vein, a public university study conducted by Lackritz (2004) in the United States revealed that burnout is clearly a problem in academia, with approximately 20% of all faculty members feeling the highest levels of burnout.

When the sub-factors of TBS are further investigated, it can be observed that although their overall burnout levels are low, the Turkish EFL teachers in this study have relatively higher levels of emotional breakdown (*M*= 2.21 *SD*=.94). The teachers especially found it difficult to disagree with the items such as "I am bored with my job" (*M*= 2.32 *SD*=1.19) or "I am weary with all of my job responsibilities" (*M*= 2.55 *SD*=1.17), which tentatively indicates that Turkish EFL teachers might be at the risk of feeling emotionally breakdown. In fact, this factor is the one with the highest mean score among other factors in TBS. This result is in line with those found by Khezerlou (2013) in his comparative study. Working with 230 Iranian and 156 Turkish EFL teachers at state high schools, Khezerlou (2013) evidenced that Turkish EFL teachers are more emotionally burnout than Iranian teachers. In a similar vein, Hong (2010) emphasized the importance of teachers' emotion by showing that dropout teachers in his study were found to be more emotional burnout than resilient teachers. As Sutton and Wheathley (2003) agree, teachers' emotions affect their cognition, behavior, and motivation. Teachers' emotions are so important that negative emotions of teachers that are reflected in aversive demands to their work are what constitutes 'teacher stress' (Rudow, 1999, p. 53). As the present study also indicates, emotional breakdown is the most important factor which causes teacher burnout.

The second factor of TBS measured teachers' communicative difficulties at work. It was observed from the results of the data analysis that although teachers do not have many problems about communicative issues, it was interesting to note that they avoid communicating with their colleagues (*M*= 1.71 *SD*=1.04) more than they do with their students (*M*= 1.39 *SD*=.77). However, the overall result shows that teachers have very little or no communicative difficulties at work. This result was also apparent in the 'feelings about students' component of TBS (the fourth factor) as the data showed that teachers strongly disagreed to have any negative feelings towards their students, which shows that students do not pose a threat for teachers' burnout. The literature suggests varied results regarding the relationship between students and teacher burnout. For instance, in a study carried out with 5426 Canadian and American teachers and administrators, 63% of them reported that students' disruptive behavior was the most stressful factor in the school environment (Kuzsman & Schnall, 1987). More recently, in a sample of 416 Australian high school teachers, McCormick and Barnett (2011) investigated the link between burnout and teachers' perceptions of job stress in specific domains (personal, classroom, school, and external). They concluded that the most salient stressor for burnout was student disruptive behavior. In contrast, Lam and Yan (2011) found in their study that students themselves were the major source of teachers' work satisfaction. Their interview data showed that the participant teachers enjoyed developing relationships with students, watching them grow, and guiding their development. The data of the present study are also in line with those in Lam and Yan's (2011) study in that Turkish EFL teachers were found to have no negative feelings about their students which would potentially cause their feeling of burnout.

The third factor of TBS was about teachers' work related feelings. This component asked the participant teachers how they feel when they are at work and when they think about work. It is known that work environment is among the most critical factors to teachers' job satisfaction (Goddard & O'Brien, 2004). As evidenced by research, it might have a positive effect on job satisfaction (Malinen & Savolainen, 2016). Although one might think that teachers' work environment is simply an equivalent of 'school' they work in, teachers' school environment is made up of and is affected by numerous variables. For example, in their study, Lam and Yan (2011) came up with three school factors which have the most impact on teachers' level of job satisfaction: clear and systematic distribution of work, outsourcing of non-core duties, and focusing on and providing resources for staff professional development. Skaalvik and Skaalvik (2009) also studied the school context by examining variables such as supervisory support, time pressure, relations to parents, and autonomy. Brenninkmejer, Van Yperen, and Buunk (2001) consider work overload, time pressure, large classes, isolation, poor opportunities for promotion to be components of work environment; whereas Hakanen et al., (2006) include students' misbehavior. As it can be seen from these studies, work environment may include a number of different variables related to school context. Despite the fact that TBS in this study only measured teachers' work-related feelings, and thus it does not specify which variables are included in teachers' work environment, the data of the present study show that teachers are satisfied with their overall work-environment as they mostly had positive work-related feelings (*M*= 1.66 *SD*=.76). This result contradicts those found in Turkish context by Merey, Pişkin, Boysan, and Şehribanoğlu (2013), who provided evidence for the effect of school environment on teacher burnout. On the other hand, the results of the present study are congruent with those found by Malinen and Savolainen (2016) in their study. Their data also indicated that school climate does not directly predict burnout. The authors commented on this result by stating that teacher burnout might be a primarily an individual-level phenomenon that is not directly related to organization-level factors such as school climate.

5.3.1. The Relationship between Teachers' Demographic Characteristics and Their Burnout

The data of the present study found no evidence for the effect of any demographical variables on teacher burnout. In other words, teachers' gender, work experience, level of education, or the type of university they work in have no significant effect on their burnout levels. The first of these, gender, is among the most widely studied demographic variables, and it is especially found in research studies that female teachers are more burnout than their male counterparts (Byrne, 1991; Pas, Bradshaw, & Hershfeldt, 2012). Stenlund et al., (2007) suggest that one of the reasons for this tendency might be that women often have a 'second job' when they return home, especially if they have a family. However, in the present study, we found no such effect of gender on burnout as there was no statistical difference between the mean scores of burnout levels of both genders. Although this result contradicts those found in Turkish context by a number of studies (Başol & Altay, 2009; Gürsel, Sünbül, & Sarı, 2002; Merey, et al., 2013), it is in line with others which found no evidence for the effect of gender on burnout or job satisfaction (Skaalvik & Skaalvik, 2009; Pas et al., 2012).

As the second demographic factor, teachers' work experience also indicated no significant effect on their burnout levels. Even though it might be hypothesized that teachers with more experience would be more prone to burnout than novice ones, the research shows contradictory results. In their study, Newstrom and Davis (2002), for instance, found that as workers grow older, they tend to be slightly more satisfied with their jobs. In a similar vein, Aldrup, Klusmann and Lüdtke (2017) discovered that the least experienced teachers in their study appeared to be more prone to emotional exhaustion. There are also many studies which similarly confirmed that older age is associated with lower burnout (Skaalvik & Skaalvik, 2011; Platsidou & Agaliotis, 2008; Van Maelea & Van Houtte, 2012). In the present study, however, no evidence was found for the effect of experience on teacher burnout, which is in line with those found by Hastings and Bham (2003), Zabel and Zabel (2001), and Pas et al., (2012) who also reported no significant relationship of teacher experience to teacher burnout.

As another demographic factor, teachers' level of education is also found to have no significant effect on their burnout levels in the present study. This result contradicts those which proved that people with a higher level of education seem to range higher on burnout than less educated people. Maslach and Jackson (1981), for example, examined 1025 human service employees from the United States, and they found that more educated employees were more emotionally burned out. In a similar vein, Goddard and O'Brien (2004) carried out their study with 123 Australian teachers, and they concluded that holding a second university degree is one of the factors that evokes burnout if teachers with a second degree are not satisfied with their working conditions. However, the present study found no such evidence to prove that level of education affects teachers' burnout levels. This result is congruent with those found in Pas et al.'s (2012) study, in which they also found no relationship between teachers' graduate degrees and their burnout levels.

Lastly, the data of the present study showed no relationship between teachers' burnout and the type of university they work in. It could be hypothesized that teachers who work as instructors at foundation universities would be more burnout than their counterparts who work at state universities as some foundation universities might require instructors to be present at school apart from their class hours, or they might occupy them more with non-teaching workloads which might result in more burnout for teachers. However, the present study found no such evidence to prove such a significant relationship between the type of university and teacher burnout. This result is at odds with those found by Bümen (2010). Working with 177 primary school teachers and 622 subject teachers in Izmir, Turkey, Bümen (2010) concluded that the type of school affects the level of teacher burnout and that teachers in private schools had lower levels of burnout than those employed in public schools.

Overall, it can be concluded that Turkish EFL teachers in the present study have low burnout levels. In particular, they have almost no negative feelings about communicating with their students or with their colleagues. There might be a number of reasons for this result. The first and the most important reason why the Turkish EFL teachers participating in this study were found to have low levels of burnout might be traced to the fact that these participant teachers work as ‘instructors at universities’. Lackritz (2004) explains that when compared to workers in the public and private sector, university faculty can get tenure and sabbatical opportunities, so they might experience lower degrees of stress and burnout. For instance, in their study, Lam and Yan (2011) give an example of a participant teacher who is quite satisfied with his job because of its salary and holiday opportunities, which he did not have in his previous job. He states that: “I like that teaching has many holidays. In other jobs, you are lucky if you have about ten days of holiday. We, teachers, can have 20–30 days off during the summer holiday” (p. 340).

Moreover, it is known that among doctors, engineers, or lawyers, teaching was a rather despised profession in Turkey for many decades until recent years because of a number of reasons. In 1970s, for example, political implementations such as intensive teacher education programs or correspondence schools were put in action with an aim to meet the urgent need for teachers in short time with low budget. In 1978, it was made possible for high-school graduates to become a teacher with only 45 days of teacher training (Demirel, 1995, p. 103 – as cited in Doğan, 2011, p. 140). In addition to these, teachers were commonly known to earn a considerably lower salary when compared to previously mentioned professions. It can be argued that these kind of implementations have damaged the value of teaching profession in public opinion. In recent years, however, the winds have changed. As both the standard and the cost of living have become more and more difficult to bear in big cities, teaching is now considered among the most advantageous jobs in Turkey as it offers a better salary, reasonable working hours, and more holiday opportunities when compared with other workers in the public and private sector. In particular, being a teacher who works as an instructor at a university is commonly regarded even more prestigious when compared to working in primary, secondary or high-schools. Because of this, to become a teacher in Turkey today, in addition to 4 years of compulsory university education and pedagogical training, teacher candidates also have to get passing grades in certain standardized national high-stakes exams. For these reasons, it can be argued that in contrast to the United States, where as many as one quarter of novice educators leave the profession within three years (Martin et al., 2012), not only novice but also experienced EFL teachers in Turkey seem to be more than satisfied with their jobs once they start working in a regular employment.

Another reason, as Neidle (1984) suggests, might be that burnout might occur at various intervals throughout one’s career. Since the present study is based on data collected as one-time snapshot, it may be possible that the participant teachers were not feeling themselves burned out at that particular time. The data for this study were collected in a two-and-a-half-month period (from mid-January to the beginning of April) which covers the 2 or 3 weeks of semester break of teachers. This means that the participant teachers might have responded to the questionnaires either on their holidays or at the beginning of the term, when their burnout levels might be relatively low compared to the end of the term. In his study, Lackritz (2004) also questions the possible effect of the time of data collection on measuring burnout:

> In this study, most of the responses were obtained in the first third of the Spring term, after faculty had returned from a 5-week time break from the Fall semester, so they were not subject to the stresses that can occur at the latter parts of the term. Thus, the significant percentage of faculty scoring high in at least one dimension of burnout at this time is a concern, reflecting the suggestions of Jones (1998) and Westman and Eden (1997) that time away from work only provides temporary relief from burnout. And, had the questionnaire been administered during the latter part of the term, could the percentage of faculty exhibiting high burnout scores been even higher than what has been reported in this study (p. 14)

In conclusion, low burnout levels of Turkish EFL teachers' in the present study might be traced back to (1) the *status quo* of employment conditions in private sector and unemployment rates in Turkey; (2) the relatively better working conditions offered by state and foundation universities (i.e. reasonable working hours, a decent salary, absence of non-teaching workload, etc.); and (3) the psychological moods or state of minds of the participant teachers at the time of data collection. It should not also go unnoticed that for teachers, the quintessence of teaching might still be the 'love of students'. Lam and Yan (2011) give an example of a participant teacher in their study who was overwhelmed by the excessive workload from both teaching and administrative duties, and who was also disappointed by the unequal distribution of work in her school -but at the same time- who was still enjoying the teaching aspect of her job. During the interview she says "If we don't talk about the administrative work, I love teaching very much. Seeing the children grow up and become better in many ways, I feel so happy" (p. 341). Similarly, Scott, Stone, and Dinham (2001) report the results of research into the career motivation and satisfaction of a sample of over 3,000 teachers and school administrators in four countries (i.e. Australia, New Zealand, England, and the USA), and they concluded that the main satisfiers of teaching are the satisfaction of working with children and seeing them achieve, working collaboratively with other members of the education community, and achieving personal professional growth.

5.4. The Relationship among Teachers' Professional Autonomy, Reflective Practice and Burnout

In the present study, we developed the BAR Model of Teacher Development which manifested the relationship among teachers' professional autonomy, reflective practice and burnout. The BAR model hypothesized that teachers' professional development is dependent on the mutual interactions among three factors: (1) professionally autonomous teachers would also show reflective teaching practices; and in turn (2) doing reflective practice would boost teachers' professional autonomy; (3) professional autonomous and reflective teachers would be less burnout; and (4) burned-out teachers would not show professionally autonomous or reflective behaviors. In order to test how well this theoretical model fits the data, SEM analysis was carried out, and the model had a good fit to the data (RMSEA=.49; TLI=.90; IFI=.90; CFI=.90; $\chi 2/df$=1.9), thus the BAR Model of Teacher Development was verified as shown in Figure 5.1 below.

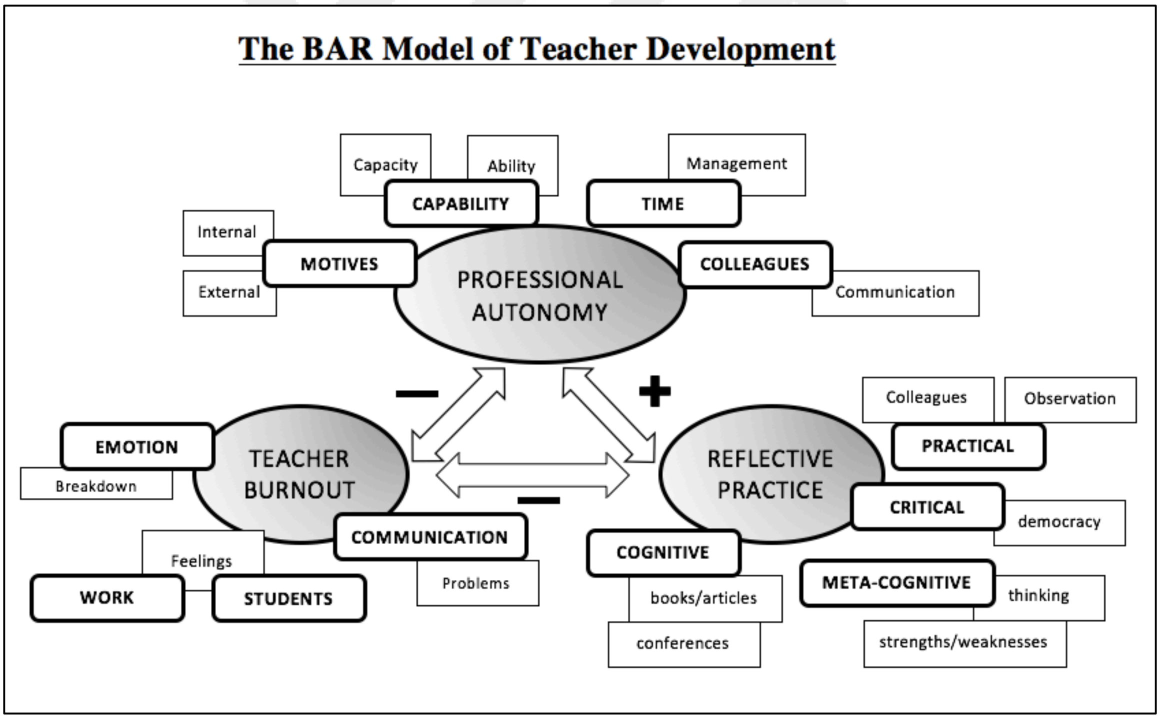

Figure 5.1. The BAR Model of Teacher Development validated in the present study

When the correlation among the variables of the BAR model are further examined in the SEM output, it was seen that there is a very strong positive correlation between teachers' professional autonomy and their reflective practices (*r*.= .95, p. < 01), which shows that if teachers are professionally autonomous, it helps them to practice more reflectively; and in turn, teachers' reflective practice boosts their professional autonomy. The model also indicated that there is a strong and negative relationship between teachers' burnout and their professional autonomy ($r.= -.50$, $p. < 01$), and similarly, there is also a moderate negative relationship between teachers' burnout and their reflective practices ($r. = -.38$, $p. < 01$). These results signify that the more teachers feel professionally autonomous and the more reflective they are, the less burnout they get. Since the BAR model verified a bidirectional relationship, it can also be inferred that teachers' feeling of burnout negatively affects their professional autonomy and their reflective practices. However, it should be kept in mind that although SEM analysis tests how well a theoretical model implying causal relations between the variables fits the data, rigid causal interpretations should be avoided. The statistical analysis merely shows the strength of relations among the variables when assuming a causal direction.

Teachers' professional autonomy in this study is defined as teachers' capability, motives, and time to develop themselves professionally in collaboration with their students and colleagues. It is also the argument of the present study that without professional autonomy, it is highly unlikely for teachers to develop themselves to become better teachers, and it would be equally unreasonable to expect them to benefit from any professional development activities or events if they are not professionally autonomous. Congruent with the concept of learner autonomy, teachers should also do reflective practice so that they can "critically examine their practices, come up with some ideas as how to improve their performance to enhance students' learning, and put those ideas into practice" (Akbari, 2010, p. 212). Here, it can be seen that teachers' professional autonomy and reflective practice are two inseparable parts of teacher-learning process as it is also evidenced by the data of the present study. McGrath (2000) agrees that self-directed professional action is related to such concepts as teacher as researcher, action research, reflective practitioner and teacher development. Similarly, Colton and Sparks-Langer (1993) argue that in comparison to their colleagues, reflective teachers are more motivated to grow, as "the process of reflection feeds a constructive spiral of professional development and competence," (as cited in Pollard & Triggs, 1997, p.4). In their study, Ling and Mackenzie (2001) found similar results and concluded that "one of the first tasks for professional development may be to facilitate the development of teachers' ability to engage in critical reflection" (p. 96).

Since we define teachers' professional autonomy as a personality trait, professionally autonomous teachers' doing reflective practice might be an expected result. However, since the present study found evidence for a bi-directional relationship, it can also be inferred that doing reflective practice also helps teachers to become more autonomous. Sahasewiyon (2004) found similar results in her study which is based on an action research project in three primary schools in Thailand. Despite the fact that the school teachers initially rejected participating in the action research project, they eventually found that the use of action research had a great positive impact on their professional learning, and helped improve their skills and capacity to develop the local curriculum. The following extract from the personal log of a teacher from Sahasewiyon's (2004) study also proves that even those teachers who are not professionally autonomous might learn how to become one by doing reflective practice: "Learning by actually doing, practicing and collecting data gave me more experience… It's better than just sitting, listening, and practicing just a little bit… That's not a good way to retain what we have learned" (p. 506). Similarly, Usma and Frodden (2003) carried out an action research study project with four English language teachers in a public school in Medellín, Columbia. At first, Usma (2003) realized that one of these teachers were quite reluctant to participate in the project, and she simply insisted on teaching the same way she did before. However, as this teacher began to practice reflectively in collaboration with other teachers, Usma (2003) observed that she started to become more autonomous. In a similar vein, Dierking and Fox (2012) examined the effect of a National Writing Project professional development model on a group of middle school writing teachers in terms of teacher empowerment, and after a two-year period, they concluded that the teachers have learned new theories and strategies that may make them feel more self-assured as professionals.

McGrath (2000) explains that some teachers - like some learners - seem to develop the capacity for self-directing their professional learning without any intervention, whereas others might develop with the help of (compulsory) in-service training programs. For some teachers, being resistant at first is only natural because taking over the role of a learner and being learners of their own profession might be a practice that teachers would avoid in the first place; yet, when they see the joy of learning, developing themselves, and thereby improving their teaching practices, it is quite likely that they will eventually start to become more professionally autonomous.

5.5. The Significant Role of Collaborating with Colleagues

The data of the present study brought another important result to light regarding teachers' professional autonomy and reflective practices: teachers are not quite enthusiastic about working with their colleagues. Regarding teachers' professional autonomy, the present study revealed that teachers either do not have many colleagues whom they can consult when they need help about their professional development, or they do not like to learn from their colleagues to develop their teaching. Regarding their reflective practices, it was observed that the Turkish EFL teachers *rarely* have a practice of observing their colleagues or being observed by them. Taking into account the fact that the participant teachers have overall low burnout feelings, and they particularly have no communication problems with their colleagues, it can be argued that the Turkish EFL teachers do not have any problems communicating with their colleagues, *but* they avoid working with them for their reflective practices and professional development.

In fact, this finding is to some extent at odds with Vygotsky's sociocultural learning theory and with the notion of reflection which has recently been regarded as a "collaborative" phenomenon. In her study Freese (1999) views reflection as "a social practice in which all the participants are involved in modeling, using and making explicit their reflections about their teaching" (p. 898). Similarly, Burhan-Horasanlı and Ortaçtepe (2016) highlight the collaborative nature of reflective practice in their study. There are many other studies which emphasize the importance of collaboration for reflective practice (Beatty, 2000; Danielowich, 2012; Sahasewiyon, 2004). However, the present study found opposite results, and it showed that teachers *can* be reflective without working with their colleagues or supervisors. In her study, Adams (2017) arrived at similar conclusions when narrating the professional learning experiences of a mathematics teacher. Adams (2017) concluded that despite having few opportunities for collaboration, this math teacher learnt informally as she gained experience in teaching and reflecting on her teaching experiences.

In fact, it cannot be denied that for teachers to work voluntarily in collaboration for professional development purposes is not an easy task even if they are professionally autonomous. The first reason might be that teachers may not have enough time because of their busy schedules or workloads since collaborative efforts as such require a great amount of time. Second, teachers might show resistance to work collaboratively. Carrying out a project with five lecturers and 120 students in higher education, García and Goblin (2008) concluded that to work in a collaborative way was one of the biggest challenges the participants had to face. If recruiting teachers in such projects creates challenge or resistance, it would be unreasonable to expect them to voluntarily work in collaboration for professional development practices.

The present study found that despite their lack of collaborative practices, Turkish EFL teachers in this study *do* reflective practices – although not at a desirable level. This finding can be discussed from two different viewpoints: On the one hand, it can be argued that despite its collaborative aspect, reflective practice can be done individually. In fact, when defining reflective practice, most scholars do not include the collaborative aspect. For instance, according to Calderhead and Gates (1993) the essence of reflection is that it enables professionals "to analyze, discuss, evaluate and change their *own* practice" (p. 2 – italics added). As Parsons and Stephenson (2005) put forward "reflective practice involves the need for individuals to be aware of, and able to monitor, their *own* thinking, understanding and knowledge about teaching and to be aware of the different kinds of knowledge upon which they can draw to help develop their practice" (cited in Watts & Lawson, 2009, p. 610 – italics added). As it is clear in these definitions, reflection is usually associated with teachers' *own* practices. Even though the sociocultural view of reflection suggests that teachers can learn in more substantive ways from shared dialogue than individual or one-on-one contexts alone (Danielowich, 2012), it should be noted that the results found in the present study are not to underestimate the power of collaboration for reflective practice. Rather, it provides significant evidence for the *individual* aspect of reflective practice, which finds itself a place in cognitive constructivist theory of learning as teachers in this study were found to be individually constructing their professional learning from their personal reflective inquiries which they carry out by themselves on their own teaching experiences. Cognitive constructivism is mainly based on Piaget's (1954) ideas in which learning is viewed as a developmental process that involves change, self-generation and construction, each building on prior learning experiences. According to Piaget's theory of cognitive development, humans cannot be given information; instead, humans construct their own personal knowledge, meaning and understanding from their experiences. The data of the present study thus found evidence for the cognitive constructivist view of reflective practice as it was observed that the participant teachers are indeed able to reflect or learn how to reflect on their own as they learn from their own teaching experiences. Teachers can individually construct their own understanding of reflective practice by turning their teaching experiences into meaningful learning experiences for themselves.

On the other hand, when the fact that the Turkish EFL teachers in the present study *sometimes* do reflective practices is taken into account, it might be argued as a second viewpoint that teachers *do* need to work collaboratively with their colleagues or with supervisors in order to increase their reflective practices for professional development purposes. There are many studies which underline the importance of collaboration in teachers' reflective practices and their professional learning (Andrews & Lewis, 2007; Beatty, 2000; Butler, Lauscher, Jarvis-Selinger, Beckingham, 2004; Danielowich, 2012; Freese, 1999; Glazer, Abbott, & Harris, 2004; Kabilan, 2007). In Turkish context, Burhan-Horasanlı and Ortaçtepe (2016) carried out a case study working with nine teachers in an EFL Methodology course of a Teaching English as a Foreign Language (TEFL) master's program at a foundation university in Ankara, Turkey. They qualitatively examined in-service EFL teachers' reflective practice oriented online discussions in a graduate course and discussing the results they emphasized the importance of teachers' collaborative discussions with colleagues to improve their reflective practice:

> The participants reported not enjoying the reflective discussions early in the semester as they were a part of the course requirements. Yet the collaborative nature of the discussions led to a change in their attitudes in time; the participants stating that they came to understand the importance of reflective practice by jointly constructing new meanings about their practice (i.e., interacting with their classmates, learning about each other's experiences, and paying attention to each other's comments and questions and suggestions for their teaching practices) within a community of practice (p. 380)

This finding shows that even though teachers may initially show resistance, work collaboratively with colleagues has positive effects on teachers' reflective practices and their professional learning. However, getting teachers to work collaboratively might not always generate desired results. For instance, the participant teachers Levine and Marcus's (2007) did not show resistance to work collaboratively, but they did not question of critique each other's work, either. They concluded that since most of the time teachers are reluctant to assess or evaluate each other's work, simply putting them in a room together will not necessarily produce generative conversations. Therefore, as they suggest, 'leaders' (or supervisors) who would critique teachers' instruction or push them on difficult issues are necessary if collaboration is aimed to produce desired results.

There are, in fact, a number of studies which show the positive effects of working with a supervisor on teachers' reflective practice. In their longitudinal case study, Hoekstra and Korthagen (2011), for instance, found out that with the guidance of a supervisor, one of the participant teachers learned to motivate herself to continue her professional development. As the authors explain, during the supervision trajectory, being encouraged to focus on her ideals instead of her problems, this participant teacher discovered that by imagining her ideal, she could motivate herself to keep learning.

When doing reflective practice, guiding teachers to focus on the positive aspects of their teaching is indeed based on a fairly recent approach within clinical psychology, called *positive psychology*. The founders of positive psychology, Seligman and Csikszentmihalyi (2000), state that "treatment is not just fixing what is broken; it is nurturing what is best" (as cited in Meijer, et al., 2009, p. 299). It follows this that reflective practice should not necessarily be about solving problems; rather it should also be about teachers' professional growth by encouraging them to focus not only their weaknesses but also their strengths so that they can also excel in their best teaching practices in addition to improving the areas which they are relatively weak at. It can be argued that this might be the point where teachers' own reflective abilities might fall short in order to reach the more core aspects of reflection. In other words, the reason why the Turkish EFL teachers in the present study only *sometimes* carried out reflective practices might be traced back to the fact that they have very limited or no opportunities to work with a supervisor as only a knowledgeable supervisor can help teachers to take a different viewpoint and focus not only on their weaknesses but also on their strengths and their core beliefs as well. The importance of collaboration and

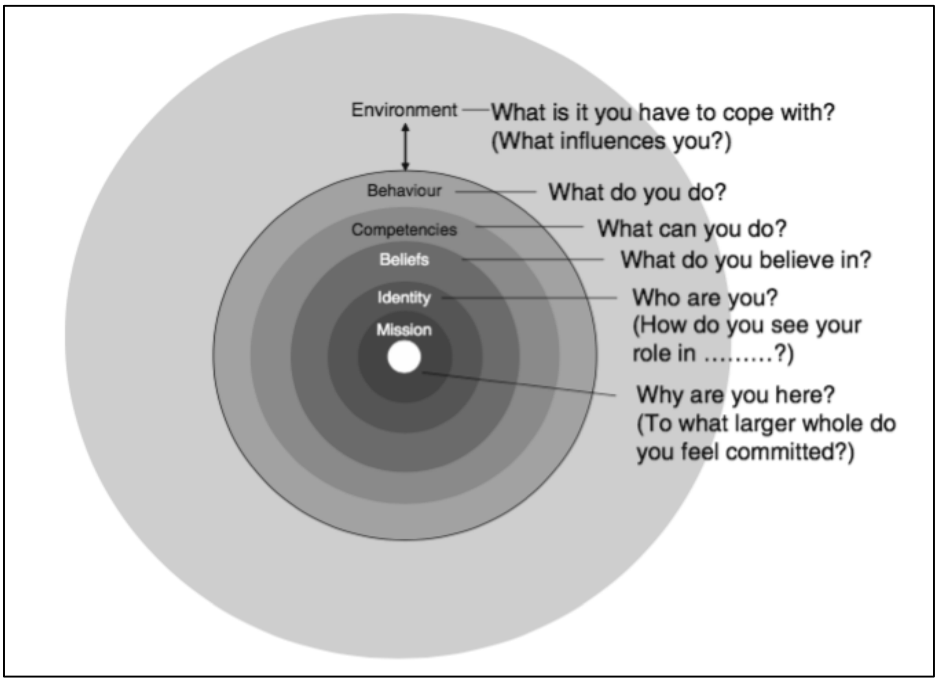

Figure 5.2. The core (onion) model of reflection (Korthagen, F. A. J., & Vasalos, A. (2005). Levels in reflection: Core reflection as a means to enhance professional development. *Teachers and Teaching: Theory and Practice, 11*(1), 47-71).

supervision in teachers' reflective practices can be theoretically evidenced by the core reflection model (Figure 5.2) suggested by Korthagen and Vasalos (2005). The core reflection model argues that for a professional behavior to become more effective and more fulfilling, it should be connected with the deeper layers within a person. In other words, the more a person is in touch with the inner levels, the more the outer levels will be influenced. Once such a link between the 'inside' and the 'outside' is established, the reflection process starts helping to connect the 'core' of the person to effective behavior in the outside world. In their model, Korthagen and Vasalos (2005) also embedded the U-theory by Senge, Scharmer, Jaworski, and Flowers, (2004) and Scharmer (2007). The U-theory, as shown in Figure 5.3, refers to a U-shaped connection between the inner and outer layers of a person's reflection layers. In other words, if teachers know their environments; if they are aware of their behaviors and competences; and if they can go deeper to acknowledge their beliefs, identities, and missions, then they can go up to the outer layers of their reflection circle and adjust their competencies and behaviors in accordance with their core layers.

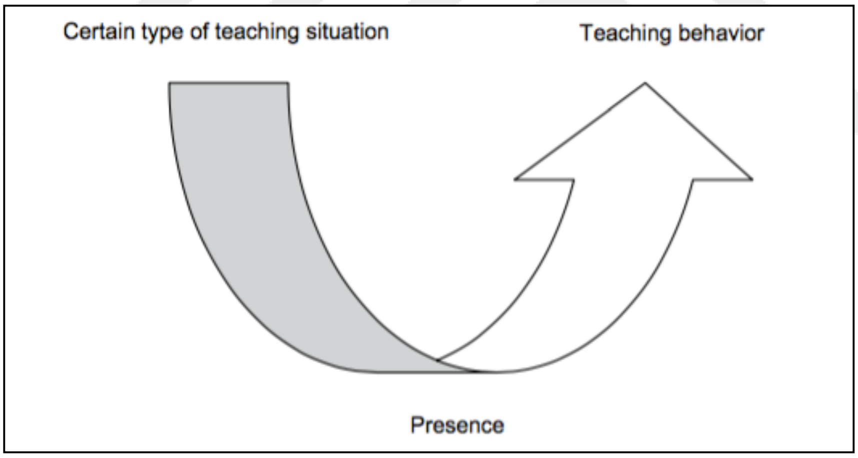

Figure 5.3. Deep learning according to U-theory (Meijer, P. C., Korthagen, F. A. J., & Vasalos, A. (2009). Supporting presence in teacher education: The connection between the personal and professional aspects of teaching. *Teaching and Teacher Education, 25,* 297-308).

In their study, Meijer et al., (2009), highlighted the crucial role of supervisors as they analyzed the learning process of a teacher supervised in the framework of the core reflection model of Korthagen and Vasalos (2005) and *U-theory* of Senge, et al., (2004) and Scharmer (2007) embedded in the model. Meijer et al., (2009) evidenced that the core reflection is only possible with the help of a supervisor who can deliberately highlight the resourceful aspects of the problematic situations and thus challenge teachers' tendency of fixating all of their attention on the problematic aspects of the situation by further deepening teachers' insights into themselves. It can be argued that this core reflection which focuses on the positive psychological aspect of reflective practice might be only possible with the guidance and help of a supervisor within the positive psychology paradigm. As ZPD by Vygotsky (1978) also suggests, we tend to move (i.e. scaffold) from what we know-and-do to what we *can* know-and-do with the help of more knowledgeable peers around us. This scaffolding is regarded as the core of learning in socio-cultural theory, which also theoretically explains teacher-learning in collaboration with their colleagues. It can be thus argued that the reason why the Turkish EFL teachers in this study were only *sometimes* found to practice reflectively might be the fact that most of them do not have the possibility (or they simply do not want to) to work with a supervisor or a knowledgeable colleague who can lead them to the way where they can achieve a harmony between their teaching practices and their core missions, identity, and beliefs. In conclusion, it can be concluded that despite the Turkish EFL teachers participating in the present study proved that they *are* able to do reflective practices on their own, in order to increase the frequency, the amount, and the effectiveness of their reflective practices, it is apparent that they need to work in collaboration with their colleagues and with supervisors.

5.6. Coping with Burnout: Teachers' Professional Autonomy and Reflective Practice as Job Resources

Another important finding about the relationship among teachers' professional autonomy, reflective practices, and burnout levels is that the teachers with high levels of burnout showed less professional autonomy and reflective practices. Since the SEM analysis also verified a bi-directional relationship, it was further discovered that those teachers who are professionally autonomous and reflective have lower levels of burnout, which evidences that professional autonomy and reflective practice might function as a coping strategy for burnout. This result is in fact congruent with the Job-Demands and Resources (JD-R) model of Burnout (Demerouti et al., 2001). With this model, it is argued that burnout develops when job demands are high and when job resources are limited (Bakker, et al., 2004). Reflection is perceived as a personal resource that offsets job demands by enabling more constructive coping and problem solving and is defined as a deliberate, purposeful metacognitive thinking and/or action in which educators engage in order to improve their professional practice (Košir et al., 2015). In agreement, Wadlington and Wadlington (2011) also argue that teachers with a high amount of reflectivity enjoy more job satisfaction and experience less burnout. Therefore, as reflective Turkish EFL teachers' burnout levels were low, it can be stated that the present study proves evidence for JD-R model of burnout. In other words, teachers' doing reflective practice might be functioning as a coping strategy with job demands at work. These findings are in line with those in Javadi and Khatib's (2014) study, in which they found a significant negative correlation between teachers' reflection and their burnout. There also a number of research studies which concluded that reflective teaching by novices may decrease their burnout (Karadağ & Sadık, 2012; Korthagen & Wubbels, 1995; Loughran, 2002).

In addition to reflection, teachers' professional autonomy was found to have a negative relationship with burnout levels of the participant teachers in the present study, which also indicates that being professionally autonomous might prevent teachers from potential symptoms of burnout. Although there are no studies on teachers' professional autonomy and burnout so as to compare our results with, there are a number of studies about related concepts. In their study, Singh, Misha and Kim (1998), for example, worked with 328 tenured and untenured faculty members, namely assistant professors, associate professors, and full professors, at a major university in the United States, and they concluded that intrinsic motivation for doing research and the burnout factors were negatively correlated, and intrinsic motivation for doing research explained 81% of variance in research-related burnout for tenured and untenured faculty. As the concept of teachers' professional autonomy in this dissertation includes teachers' motives to develop themselves professionally, it can be argued that Singh et al., (1998) found similar results as we did in the present study. In other words, teachers' motives to develop themselves function as a coping strategy for burnout. Congruent with the concept of teachers' professional autonomy, Dinham and Scott (2000) also found that 'self-growth' and 'mastery of professional skills' function as powerful satisfiers for teachers. In a similar vein, Lam and Yan (2011) evidenced that teachers' 'own personal growth' is important for their teaching motivation and satisfaction.

At this point it is important to refer to Herzberg's Motivation-Hygiene Theory (Herzberg, Mausner, and Snyderman 1959; Herzberg 1966, 1976), which differentiates between job satisfaction and dissatisfaction with clear-cut points. According to Herzberg, job dissatisfaction results from a number of factors such as company policy and administrative practices, supervision (technical quality), interpersonal relations (especially with supervision), physical working conditions, job security, benefits, and salary (cited from Miner, 2005, p. 63). These dissatisfying elements, namely 'hygiene factors', are important metaphors to describe a clean working environment for employees because nobody would want to work to work in an 'unhygienic' environment. If these hygiene factors are appropriately provided to the individuals, their work performance can increase up to a point where they no longer feel dissatisfied with their jobs. However, this will not make them necessarily satisfied with their jobs. To put in a different way, by providing good hygiene factors, administrators can only get rid of the risks which would potentially make individuals dissatisfied with their jobs, but this only moves the individuals from negative zone to a neutral state. For individuals to be in the positive zone – that is, to be satisfied with their jobs – they need certain factors which would *give* them job satisfaction, such as an outgrowth of achievement, recognition (verbal), the work itself (challenging), responsibility, and advancement (promotion) (Miner, 2005). Herzberg et al., (1959) clearly assert that the individual should have some measure of control over the way in which the job is done in order to realize "a sense of achievement and of personal growth" (p. 132).

Although it is beyond the scope of the present study, the remarkably low burnout levels of the participants can tentatively be interpreted as their job satisfaction to some extent. Therefore, it is possible to argue that the concept of teachers' professional autonomy might be regarded as one of the factors which would give teachers job satisfaction. In a number of studies, experiencing self-growth was similarly evidenced to be a factor from which teachers derive job satisfaction. In a series of papers on the job satisfaction and motivation of teachers, Scott et al. (Dinham and Scott 1998; Dinham and Scott 2000; Scott, Cox, and Dinham 1999; Scott, Stone, and Dinham 2001) confirmed Herzberg's two-factor model. They found that teachers in different countries generally derive job satisfaction from factors integral to the teaching job: assisting the growth of children, developing good relationships with students, and experiencing self-growth (cited from Lam & Yan, 2011, p. 336). In their study, Sharplin, O'Neill and Chapman (2011) arrived at the conclusion that in order to cope with their first year of teaching, novice teachers resort to direct-action strategies, such as getting information, accessing professional development, reflecting, and establishing boundaries. Here, it can be seen that in order to avoid the potential symptoms of burnout, teachers instinctively engage themselves in practices such as reflection and professional development which would provide them with job satisfaction.

Another interesting result of the present study is that despite avoiding doing reflective practice collaboratively with their colleagues, and despite being reluctant to work with their colleagues for professional development purposes as a component of their professional autonomy, the burnout levels of participant teachers' were considerably low. In other words, not working (or not having the opportunity to work) in collaboration with their colleagues does not cause any burnout feelings for the participant teachers. This result is particularly interesting because there are many research studies which found evidence that collaboration is one of the factors which helps teachers to get rid of stress and burnout. For instance, Lim and Eo (2014) studied burnout, reflective dialogue, and collective teacher efficacy. In their study, they defined reflective dialogue as the process by which teachers engage in in-depth conversations about teaching and learning and collective teacher efficacy as the perceptions of teachers in a school that the effort of the faculty as a whole will have a positive effect on students. They found that approximately 43% of the variance of teachers' burnout was explained by reflective dialogue between teachers and collective teacher efficacy. Similarly, the data analysis of the study carried out by Ju, Lan, Li, Feng, and You (2015) suggested that greater perceived support from supervisors and colleagues may lead to lower burnout. In his study, Chan (2010) concluded that teachers who reported that they had supportive supervisors and received positive feedback from others about their skills and abilities were less vulnerable to burnout.

On the other hand, there are also a number of studies whose findings are in line with the results of the present study. Reeves, Pun, and Chung (2017) recently studied collaboration and job satisfaction in a Japanese context. In terms of collaboration, the teachers were asked to indicate the frequency of their participation in five types of collaboration activities, which included discussing how to teach a topic with other teachers, collaborating in planning and preparing instructional materials, sharing teaching experiences, visiting other classrooms to learn about teaching, and working with other teachers to try out new ideas. Reeves et al., (2017) found that none of the items measuring collaboration were significant predictors of job satisfaction in Japan. In terms of teacher autonomy, Clement and Vandenberghe (2000) found that teachers' autonomous work does not incite collegiality, and vice versa, the collegial interactions do not hold impulses for autonomy. They give example from a participant teacher in their study who explains her reluctance to share her work with her colleagues:

> “I have some ideas, but I never tell the others about it, because they would do it too. It doesn't belong any longer to you, then. You invent it, you think it over, you work hard to make it work. If you tell the others about it, they pilfer it right under your nose. They take it over and it feels no longer yours.” (p. 90)

The present study also found similar results. The fact that the Turkish EFL teachers were reluctant to work with their colleagues in terms of their reflective practices and professional self-development does not have a negative effect on their burnout levels. On the contrary, as the data of the burnout measure show, they have positive relationship with their colleagues, which indicates that teachers do not deliberately choose to work with their colleagues as a part of their professional autonomy or reflective practices.

CHAPTER VI

SUMMARY AND CONCLUSION

"Teachers! The new generation will be your devotion."

Mustafa Kemal Ataturk

6.0. Introduction

This final chapter concludes the study as it once more presents information about the significance of the study, method, and data analysis results and summarizes the most important findings related to teacher's professional autonomy, their reflective practices, and burnout levels. The practical implications concerning teacher education and ideas for further research are also discussed.

6.1. Summary of the Study

The present study consisted of two phases with two major aims. The first aim was to highlight a rather neglected aspect of teacher autonomy from professional development perspective, which views teachers as still learners of their profession. In this regard, we defined *teachers' professional autonomy* as "teachers' capability, motives, and time to develop themselves professionally in collaboration with their students and colleagues". Since the literature yielded no valid and reliable instrument to measure teachers' professional autonomy, Teachers' Professional Autonomy Questionnaire (TEPAQ) was created from scratch. It is known that autonomy is a very complex phenomenon, both theoretically and practically, which limits our ability to 'measure' it (Raya & Vieira, 2008). Thus, TEPAQ was constructed by following a number of meticulous steps before, during, and after the creation process of the instrument with an aim to ensure its validity and reliability as a psychometric measurement tool.

As one of the initial steps to ensure the content validity of TEPAQ, the literature on teacher autonomy was extensively reviewed to come up with related concepts and ideas about teacher's professional autonomy. After an extensive review of the related literature, two focus group interviews were carried out with 15 novice and experienced teachers who were purposefully chosen from the target population. The qualitative data coming from these interviews were analyzed through qualitative methods. The findings from this analysis – along with the concepts in the reviewed literature – were used to write the item pool for TEPAQ. This item pool went through several expert feedback sessions with Dr. Richard Smith, who coined the term 'teacher-learner autonomy', and with many other experts in the field, which also added substantially to the content validity of TEPAQ. Secondly, both Exploratory Factor Analysis and Confirmatory Factor Analysis were carried out to verify its construct validity, which tailored the instrument to its final version. As for its reliability, the internal consistency for each sub-factor of the instrument was calculated with Cronbach's Alpha values. This final version of the instrument was also piloted face-to-face with 12 teachers as participants from the target population so as to eliminate any unexpected problems while they were responding to the items in the questionnaire. After this rigorous process, TEPAQ was evidenced to be a valid and reliable tool to measure teachers' professional autonomy.

The second phase of the present study had a quantitative research design and its aim was to investigate the relationship among teachers' professional autonomy, their reflective practices and burnout levels with three Likert-type instruments. As a newly-developed tool, TEPAQ was used to measure teachers' professional autonomy. In order to measure teachers' reflective practices and burnout levels, English Language Teaching Reflection Inventory (ELTRI) developed by Akbari et al., (2010) and Teacher Burnout Scale (TBS) developed by Richmond et al., (Richmond et al., 2001) were used, respectively. ELTRI was previously construct-validated in the Turkish context with EFL instructors by Yeşilbursa (2013). Therefore, in the present study, this validated version of ELTRI by Yeşilbursa (2013) was used to measure teachers' reflective practices. Similarly, TBS was previously used and validated in the Turkish context (Cephe, 2010; Güneş, 2014), but for the actual data collection, the original version of the TBS was used as it served two different purposes in the present study. First, TBS was used as a scale to measure teachers' overall burnout levels; and second, it was used as a factorized questionnaire to evaluate teachers' burnout feelings related to different aspects of their job. Despite the fact that they were previously presented as valid and reliable tools in the reviewed literature by a number of studies, both ELTRI and TBS were nevertheless subjected to Exploratory Factor Analyses to verify their validity, and their internal consistency were also accounted for with Cronbach's Alpha values to ensure their reliability.

The main data for the present study were collected from 375 participants who were English language instructors at state and foundation universities in 36 cities in seven regions of Turkey. They participated in the study voluntarily, and they responded to the instruments via a link sent to their emails. In order to statistically answer the research questions and test the hypotheses, the data were analyzed via SPSS Version 21 and AMOS 5 programs.

In accordance with the research questions, the present study first investigated how professionally autonomous, reflective, and burned-out the participant teachers were. Next, the effect of their gender, the type of university they worked in, their level of education and their teaching experience on their professional autonomy, reflective practices, and burnout levels were also examined, respectively. Lastly, the BAR Model of Teacher Development, which manifested the bi-directional relationships among teachers' professional autonomy, reflective practices, and burnout levels, was hypothesized, and this hypothesized model was verified via SEM analysis carried out with AMOS 5 program.

6.2. Summary of the Results

The results of this study indicated that the Turkish EFL teachers who participated in the present study (1) have low burnout levels; (2) they are professionally autonomous at a medium-high level; and (3) they are *sometimes* reflective.

When these three main variables are examined in detail, it was observed that although teachers do not have any communication problems with their colleagues, they are not keen on working with them for professional development activities such as observations, or they do not have any colleagues or mentors whom they can consult about their professional development. This lack of collaboration with their colleagues was interpreted in two different but related ways. First, it was inferred that teachers *can* be professionally autonomous and reflective without any colleagues or supervisors, which shows that teachers can learn from their own teaching experiences and become more professionally autonomous and reflective by themselves. In other words, this study provided evidence for the individual aspect of reflective practice. On the other hand, since the frequency of participant teachers' reflective practice was not found to be at a desired rate, it was also inferred that teachers' lack of collaboration with their colleagues is apparently a detrimental factor for both their professional development and reflective practice. To put in a different way, what teachers can do individually as reflective practice is limited to some extent without the help, support, or guidance from knowledgeable others such as more experienced/educated colleagues, supervisors, or mentors. It was thus concluded that the present study found evidence for the plausibility of cognitive-constructivist theory of learning regarding reflective practice as an individual learning journey where teachers are able to learn *for* themselves and *by* themselves from their very *own* teaching experiences. In addition, it also highlighted the importance and necessity of social-constructivist theory of learning for teachers to improve their reflective practices and professional autonomy in collaboration with more knowledgeable peers in a Zone of Proximal Development as they were found to be incompetent to advance on the way to more core reflective practice on their own.

As far as the effects of demographic characteristics are concerned, it was interesting to see that burnout had no relationship with any of the demographic characteristics. Although the common tendency would be to assume that teachers who are (1) female, (2) who work in foundation/private institutions, (3) who are more experienced, and (4) who are more educated might be more prone to burnout, the present study found no evidence for such relationships between these demographic characteristics and burnout levels of the participants.

When it comes to teachers' professional autonomy, the most significant result was that teachers (1) who are female, (2) who have M.A or Ph.D degrees, and (3) who have recently started teaching were found to be more professionally autonomous than their colleagues who are male, who have only B.A degrees, and who have more than 10 years of experience, respectively. It was concluded that having M.A or Ph.D degrees or being a newly graduate makes teachers more professionally autonomous, which shows that continuing learning about their profession and keeping themselves up-to-date with recent developments in teaching help teachers to gain more professional autonomy.

As regards the relationship between demographic characteristics and reflective practice, the data of the present study indicated that only gender and level of education had a meaningful effect on teachers' reflective practices. It was found that female teachers and teachers with Ph.D levels are more reflective than male teachers or the teachers with M.A or B.A degrees, respectively. This result was particularly interesting because unlike teachers' professional autonomy, having *only* a Ph.D degree -not an M.A degree- was evidenced to make a difference on teachers' reflective practices. It was inferred that since doing a Ph.D degree requires more time, effort, and devotion when compared to getting an M.A degree, the teachers who were in the pursuit of earning a Ph.D degree might have gained more reflective practice skills throughout the years in which they have been continuing to take lessons, study and learn the subject matters in their Ph.D programs.

The final step of the data analysis consisted of the relationship among teachers' professional autonomy, reflective practices, and burnout levels as it was the main area of investigation of the present study. Through the BAR Model of Teacher Development, it was hypothesized that (1) since teachers' professional autonomy was conceptualized as a personality trait, teachers who are more professionally autonomous would be more reflective; and in turn (2) if teachers do reflective practice, this would help them boost their professional autonomy. As regards burnout, it was anticipated that (3) teachers who are burnout would be less professionally autonomous and less reflective; and in contrast, (4) teachers who are professionally autonomous and reflective would have less burnout symptoms. These bi-directional relationships were developed into "the BAR Model of Teacher development", and this model was tested via SEM analysis. The results verified the BAR model and showed that there is a very strong and positive relationship between teachers' professional autonomy and their reflective practices, whereas burnout was strongly but negatively related to teachers' professional autonomy and reflective practice. The SEM analysis also revealed that the model had a good fit to the data, which indicated that these hypothesized bi-directional relationships were significant, and that these three main variables significantly affected each other at a considerable level.

6.3. Importance of the Study

This study is important in many aspects. First of all, as the reviewed literature suggested, teacher autonomy from the perspective of professional self-development is relatively a neglected area in the literature of teacher education; and therefore, there is not any measurement tool available in the literature to gauge teachers' professional autonomy as it is defined in the present study. Although there are a number of measures on teachers' autonomy, such as "Teaching Autonomy Scale" by Pearson and Hall (1993) or "Teacher-Work Autonomy" by Friedman (1999), they conceptualize teacher autonomy from the technical or political aspects as they mainly define it as teachers' freedom in the classroom or teachers' freedom about curricular issues. It is known from Usma's (2007) comprehensive review that in the empirical studies which attempt to operationalize the concept of teacher autonomy and devote a lot of attention to the construction and validation of a research tool for its measurement, teacher autonomy is conceptualized as a personal sense of freedom to execute professional action.

With an aim to fill this gap in the literature, the present study adopted a different viewpoint, and studied teachers' autonomy from the perspective of professional self-development as "teacher-learning" (Smith, 2000). Therefore, we regarded this autonomy of teachers as their own *learning autonomy* because we believe that just as doctors need to keep themselves up-to-date with the most recent developments in medical technology, teachers also need to improve themselves in accordance with the latest developments in teaching with an aim to develop themselves professionally to become 'better' teachers. If autonomy is "to take responsibility for one's own learning" (Holec, 1981), then teachers also need to take a responsibility to continue their professional learning following the years they graduate from pre-service teacher education programs and begin their careers as teachers. Johnson (2009) agrees that "at its core, second language teacher education is primarily concerned with teachers as learners of teaching" (p. 17).

In his study, Usma (2007) suggested that further studies which examine teacher autonomy especially in the specific area of foreign language teaching from different theoretical viewpoints are necessary in order to account for the complexity of the term. It follows this that the present study contributes to the research stream on teacher autonomy by highlighting the importance of teachers' professional autonomy as a neglected aspect of teacher autonomy, and it also offers a valid and reliable tool to measure this construct so as to instigate this under-researched dimension of teacher autonomy in the literature.

When the Turkish context is considered, it can be argued that the present study proves to be valuable not only because it offers a psychometric tool to measure teachers' professional autonomy, but also because that it investigates teachers' professional autonomy along with two other important variables, namely teachers' reflective practices and their burnout levels. In addition to the fact that the research studies carried out in the field of teacher autonomy rare (Öztürk, 2011), the number of studies which investigate teacher autonomy along with other related variables are even rarer in Turkey, which also adds to the significance of the present study.

Furthermore, another importance of the present study is that the target population was chosen as the English language teachers working as instructors at preparatory schools of state and foundation universities in Turkey. We believe that preparatory schools of universities are the most important entities in a university since they hold the highest number of student population and largest academic staff among all other faculties within a university. Nonetheless, most of the recent studies conducted in the Turkish context are carried out with primary school teachers (Güvenç, 2011), primary/secondary/high school teachers (Çelik & Yılmaz, 2015), or pre-service teachers (Balçıkanlı, 2010; Sert, 2006). Thus, to our knowledge, there are very few -if any- research studies on teacher autonomy that are carried out with English language teachers working as instructors at the preparatory universities of state and foundation universities in Turkey. Therefore, it can be argued that the present study is important as it contributes to the literature by offering a valid and reliable questionnaire to measure teachers' professional autonomy, and by also shedding light on the current status of Turkish EFL teachers working at the preparatory schools of universities regarding their professional autonomy, reflective practices, and burnout levels.

6.4. Implications

This study has many prominent implications for administrators, directors, managers, policy-makers – simply all the entities who are involved in the decision-making processes regarding pre-service teacher education, teacher development, in-service teacher trainings, and so forth.

First, although the data of the present study revealed that teachers who are professionally autonomous also practice reflectively, it was also evidenced that if teachers are not professionally autonomous, they *can* improve their professional autonomy by doing reflective practice. Second, it was found that teachers who are professionally autonomous and reflective are less affected by the symptoms of burnout. These results mean that if teachers are not professionally autonomous or they if suffer from burnout, reflection might work as a coping strategy. In other words, it can be argued that learning how to practice reflectively might help these teachers to increase their professional autonomy and at the same time to get rid of the possible symptoms of burnout. Here, the main implication is that both at the pre-service and in-service teacher education, teacher candidates, novice teachers, and experienced teachers should be provided with adequate support to practice more reflectively. It is known from the literature that reflective practice plays a crucial role in teachers' professional development (Castle, 2006; Lamb, 2008; Thavenius, 1999; Vieira, 1999, 2000). As Voller (1997) also points out, self-monitoring is one way for teachers to continue their professional development, to reflect critically on their practices and to narrow the gap between their imagined view of their own teaching and reality (p. 112).

Secondly, it was found in the present study that Turkish EFL teachers *sometimes* practice reflectively, and at the same time it was observed that they avoid working with their colleagues regarding their professional development, or they simply do not have any colleagues, mentors, or supervisors whom they can ask for help regarding their teaching practices. When interpreted together, these results mean that in order to increase the frequency and the quality of their reflective practices, teacher *need* to work collaboratively. As the sociocultural learning theory by Vygotsky (1978) suggests, we move from what we already know or do towards what we can learn or do with the help of the more knowledgeable peers around us (i.e. scaffolding). In addition, as the model of reflection by Korthagen and Vasalos (2005) shows, we can move to the inner levels of the reflection circle with the help of mentors or supervisors since they are the ones who are able to encourage us to reflect more meaningfully by not only focusing on our mistakes or weaknesses to improve our teaching, but also building on our successes and strengths with an aim to deliberately highlight the resourceful aspects of our teaching, which would be quite difficult to achieve without the guidance of a supervisor.

The reason why the reflective practices carried out by the Turkish EFL teachers in the present study were found superficial to some extent can also be explained by this fact as they stated that (1) they do not have any supervisors or colleagues from whom they can get help; or (2) they simply avoid doing so. At this point, the implication for the administrators is that it is important to establish a positive, assuring, and effective atmosphere among teachers and also to encourage them to work collaboratively to practice reflectively. If possible, teachers should be provided with enough opportunities to work with supervisors or mentors to better their reflective practices. As the present study proved, this reflective practice would boost teachers' professional autonomy and decrease their burnout levels, which would in turn be beneficial for teacher-learning and thus students' learning. It should be kept in mind that training teachers or raising supervisors is not always necessarily a long and tiring process. In their study, Attema-Noordewier, Korthagen, and Zwart (2009), for example, showed that a supervision model can be learned by teachers in two to three days of training, even when they have no previous experience in supervision.

As one of the results in the present study indicated, teachers who work for more than 10 years lose their professional autonomy when compared to their novice counterparts. This result is indeed reasonable because as Ryan and Deci (2000) explain, even when teachers begin their practice having intrinsic motivation, the maintenance and enhancement of this inherent propensity requires supportive conditions, or else, it may diminish (p. 70). Therefore, helping teachers with adequate support and guidance through supervision is of utmost importance if the primary objective is to keep the professionally autonomous, reflective, and exempt from the symptoms of burnout.

Another alternative to develop teachers' reflective practices -and thus their autonomy- might be 'action research', in which teachers conduct a small-scale inquiry in their own classrooms with their own students. As the post-method pedagogy suggests (Kumaravadivelu, 2001), every teacher and every classroom is unique to itself; therefore, they need specifically tailored solutions for their own problems. If teachers are not professionally autonomous – which means that they do not have enough capability, motives, time, or colleagues to solve these problems – they might eventually become more prone to experience burnout. On the other hand, it they were taught how to do action research with adequate supervision or coaching, this would help them to adopt a more reflective aspect for their problems in the classroom, and solving their problems both by themselves and with the help of a supervision when they need. It can be argued that such reflective practice is necessary for teachers not only to help them cope with problems at all times, but also to improve their teaching practices. As Richards (2002) suggests: "Teachers should not set out to look for a general method of teaching or to master a particular set of teaching skills, but should *constantly try* to discover things that work, discarding old practices and taking on board new ones" (p. 24 – italics added). In a similar vein, Stenhouse (1975) argues that "It is not enough that teachers' work should be studied: they need to study it themselves" (p. 143). As the results of the present study also evidenced, doing reflective practice -both individually and in collaboration with their colleagues and supervisors- would help teachers to become more autonomous and less burned-out.

Although encouraging teachers to do reflective practice with action research programs might be an implication for in-service teachers, the main implication of the present study concerns the pre-service teacher education. If teachers' professional autonomy is mainly about teachers' continuing their professional development, it can be argued that it is (or it should be) at the heart of teacher education. Johnson (2009) agrees by stating that "at its core, second language teacher education is primarily concerned with teachers as learners of teaching" (p. 17). Lamb (2000) agrees that the development of reflective practice is fundamental to teacher education since it encourages teacher responsibility for professional development and offers a means of carrying this through. As the present study revealed, when in-service, teachers might not always have the chance to work with colleagues or supervisors. For this reason, pre-service teachers need to be taught how to carry out core reflective practices before they graduate and start teaching. As no learner can become an autonomous language learner-user simply by being told how to do so (Little, 1995), it would be equally unreasonable to expect teachers or teacher candidates to become reflective and professionally autonomous in one day. Therefore, both pre-service teacher education programs and in-service teacher trainings are of utmost importance to engage teachers and teacher candidates in core reflective practices which would not only help them walk away from potential burnout symptoms, but also move towards professional autonomy on the continuum of life-long professional development.

6.5. Suggestions and Ideas for Further Research

The results of the present study lead to a number of suggestions and ideas for further research. First of all, as the concept of teachers' professional autonomy is an under-researched area in the literature, more research studies should be devoted to analyzing the concept in different contexts. For instance, as the target population of the present study was English language teachers working as instructors at state and foundation universities in Turkey, teachers working under the Ministry of National Education and teachers of other school subjects might also be examined in terms of their professional autonomy. Furthermore, as it is a newly-developed psychometric tool, TEPAQ may also be construct-validated with teachers in other countries to account for the cultural differences in identifying teachers' professional autonomy. Researchers might be interested in analyzing the contexts in which teachers lack resources such as technological equipment or opportunities for professional development, their capability and motives to develop themselves professionally.

Moreover, since the present study was purely a quantitative one, further research into the qualitative dimension of the main variables may also be focused on. Specifically, the factors contributing to teachers' professional autonomy and reflective practice, and the reasons causing their burnout might be examined. In particular, burnout levels of teachers might be revisited in divergent periods in a comparative manner because as Neidle (1984) suggests, burnout might occur at various intervals throughout one's career, which means that longitudinal studies are necessary to account for this unstable nature of burnout, which would pave the way for the construct to be viewed from different angles.

Lastly, as the TEPAQ was created from scratch as a valid and reliable measurement tool in the present study, its construct validation in different contexts might be of interest for the future studies. It would especially be interesting to see the manifestation of the concept in other cultural contexts with teachers from other subjects with distinctive demographic backgrounds. Similarly, as the BAR Model of Teacher Development was originally developed in the present study, more studies in such different contexts might be needed to account for its feasibility regarding the relationship among teachers' professional autonomy, their reflective practice and burnout.

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APPENDICES

Appendix A: Permission of the Ethics Committee taken from Gazi University

Evrak Tarih ve Sayısı: 08/03/2017-E.35662

BENDBVATJ

T.C.
GAZİ ÜNİVERSİTESİ
Etik Komisyonu

Sayı : 77082166-302.08.01-
Konu : Bilimsel ve Eğitim Amaçlı

EĞİTİM BİLİMLERİ ENSTİTÜSÜ MÜDÜRLÜĞÜNE

İlgi : 29/12/2016 tarihli ve 80287700-302.14.03- E.159265 sayılı yazı.

İlgi yazınız ile göndermiş olduğunuz, Enstitünüz Yabancı Diller Eğitimi Anabilim Dalı, İngilizce Öğretmenliği Bilim Dalı **Doktora öğrencisi Ayşegül OKAY'ın, Doç.Dr.Cem BALÇIKANLI'nın** danışmanlığında yürüttüğü **"Professional Autonomy, Reflective Practice and Burnout: The Case of Language Teachers at Tertiary Level In Turkey (Mesleki Gelişim Özerkliği, Yansıtıcı Uygulama ve Mesleki Tükenmişlik: Üniversite Yabancı Dil Öğretmenlerinin Türkiye'deki Durumu"**adlı tez çalışması ile ilgili konu Komisyonumuzun 10.02.2017 tarih ve 02 sayılı toplantısında görüşülmüş olup,

İlgilinin çalışmasının Türkiye'de Yabancı Diller Yüksek Okulu olan tüm Devlet ve Vakıf Üniversitelerinden izin alınması koşuluyla yapılmasında etik açıdan bir sakınca bulunmadığına oy birliği ile karar verilmiş ve karara ilişkin imza listesi ekte gönderilmiştir.

Bilgilerinizi ve gereğini rica ederim.

e-imzalıdır
Prof. Dr. Alper CEYLAN
Komisyon Başkanı

Araştırma Kod No: 75

Ek:1 Liste

Ankara
Tel:0 (312) 202 20 57 Faks:0 (312) 202 20 63
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Bu belge 5070 sayılı Elektronik İmza Kanununun 5. Maddesi gereğince güvenli elektronik imza ile imzalanmıştır.

Appendix B: A sample e-mail sent to the participants

Değerli Hocalarım,

*Bu doktora tezi, Gazi Üniversitesi bünyesinde yürütülmekte olup, Türkiye'deki devlet ve vakıf üniversitelerinin Yabancı Diller Yüksek Okulu bünyesinde çalışan öğretim elemanlarının mesleki özerklikleri, yansıtıcı öğretim uygulamaları ve meslekten soğumaları arasındaki ilişkiyi araştırmaktadır. Çalışmaya katılımınız gönüllülük esasına dayanmaktadır. Sizden, adınız veya çalıştığınız kurumun adı ile ilgili hiçbir bilgi istenmeyecektir. Cevaplarınız gizli tutulacak, diğer katılımcıların cevaplarıyla birlikte sadece toplu bir şekilde yorumlanacaktır. Ankette doğru ya da yanlış cevap yoktur. Bu nedenle, nasıl olması gerektiğini düşünerek **değil**, sadece kendi durumunuzu belirten şıkkı işaretleyiniz. Anketi tamamlamanız yaklaşık 8-10 dakika sürecektir.*

https://docs.google.com/forms/d/e/1FAIpQLSeJSG3BjxpcgEEYFlddVCqsXoMyJgodzK4kMz2EmNgKgFLIMw/viewform

Katılımınız için şimdiden teşekkür eder,
Saygılarımı sunarım.

Öğr. Gör. Ayşegül OKAY
Yıldız Teknik Üniversitesi
Yabancı Diller Yüksek Okulu
Temel İngilizce Birimi

GAZİLİ OLMAK AYRICALIKTIR...