

# STRUCTURAL RELATIONSHIPS AMONG TEACHERS' GOAL ORIENTATIONS FOR TEACHING, SELF- EFFICACY, BURNOUT, AND ATTITUDES TOWARDS TEACHING

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## ABSTRACT

Teachers' goal orientations for teaching are one of the most important motivational beliefs affecting instructional processes. This study investigated the structural relationship between teachers' goal orientations for teaching and their attitudes towards their job through measures of self-efficacy and burnout. 495 teachers (working in primary, secondary, or high schools) participated in the study. Hypothetical models were created and tested using the variables mentioned above. The results suggest: 1) mastery goal orientation, through self-efficacy and burnout measures, is a positive predictor of attitudes towards teaching, 2) work-avoidance orientation, through self-efficacy and burnout measures, is a negative predictor of attitudes towards teaching and 3) ability-approach orientation has no effect on attitudes towards teaching. In addition, it has been found that the above goal orientations do not have a direct effect on teachers' attitudes towards teaching. The results are further discussed through comparisons to related literature.

## KEYWORDS

**Attitude, burnout, goal orientations for teaching, self-efficacy, structural equation modelling**

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## Highlights

- Teachers' mastery goal orientation through self-efficacy and burnout measures is a positive predictor of attitudes towards teaching.
- Teachers' work-avoidance orientation through self-efficacy and burnout measures is a negative predictor of attitudes towards teaching.
- Teachers' ability-approach orientation has no effect on attitudes towards teaching.
- Above goal orientations do not have a direct effect on teachers' attitudes towards teaching.

## INTRODUCTION

The school is not only a place for learners to learn and to do something (Butler, 2007), but also for teachers to perform, teach and learn simultaneously, struggle with difficulties, try to increase efficiency, carry out the responsibilities of their profession and practice professionalism in their job, and acquire necessary knowledge, skills and tendencies. In other words, while the learning environments such as schools are motivational environments for students to learn, they also become motivational environments for teachers to teach

(Yıldızlı, Saban and Baştuğ, 2016) and, thus, teacher motivation and its components are significant. Research on motivational beliefs that are effective in the learning process indicates the importance of students' goal orientations (Leondari and Giamalas, 2002). The goal orientation that is important for learning is also important for teachers and recent studies have focused on this matter (e.g. Butler, 2007, Butler, 2012; Butler and Shibaz, 2008; Dresel et al, 2013; Han, Yin and Wang, 2016). In line with this, the aim of the present study is to reveal teachers' goal orientations for teaching. As a secondary aim,

the relationship between teachers' goal orientations and their attitudes towards teaching (including their self-efficacy and burnout) has been investigated.

## Goal orientations for teaching

Goals provide a framework in which an individual interprets events and outcomes in a cognitive, behavioural and emotional pattern and responds to those events and their consequences (Dweck and Leggett, 1988). Issues such as why individuals determine their goals, how they decide to reach those goals and their standards to assess their performance are related to goal orientation (Yıldızlı, Saban and Baştuğ, 2016). Goal orientation theory examines how and why individuals make attempts to achieve various goals (Anderman and Maehr, 1994). A number of categorizations for goal orientations exist in the literature; (1) learning goal and performance goal (Dweck, 1986), (2) task-involvement and ego-involvement (Nicholls, 1984) and (3) mastery goal and performance goal (Ames, 1992). These orientations were later re-modelled into different subcategories. For example: (1) *learning-approach*, *performance-approach* and *performance-avoidance* (Elliot and Harackiewicz, 1996) and (2) 2x2 goal orientation (learning / performance x approach / avoidance (Elliot and McGregor, 2001)). The *performance-approach* states that students' aim for developing themselves is to be admired by others while *performance-avoidance* states that students try to prevent their mistakes and/or failures being realized by others. Performance avoidance is associated with low self-efficacy, anxiety, avoidance without help, self-avoidance strategies (Urduan et al, 2002). *Learning-approach* states that learners are oriented to achieve their learning goals while *learning-avoidance* states that learners display avoidance behaviours to inhibit understanding of tasks or misunderstandings. On the other hand, in *learning-avoidance* orientation, individuals have more negative feelings such as fear and anxiety during the process of realizing goals (Elliot and McGregor, 2001).

While students are oriented towards acquiring knowledge and skills during learning, teachers aim to equip students with knowledge and skills. Since there is behavioural diversity among teachers in reaching those aims, there can be diversity in their orientations. Therefore, goal orientations are considered to be important in teachers' actions to organize and initiate skills development activities (Nitsche et al, 2011). For example, when the learning approach orientation is taken into consideration from the perspective of a teacher; it can be seen that this orientation is associated with high professional reflection, high interest in teaching, high self-efficacy and preference for seeking help to solve problems related to the profession (Butler, 2007; Runhaar, Sanders and Yang, 2010). As for performance-avoidance orientation, a teacher with such orientation undertakes an activity with the aim to avoid low proficiency and show skill development. This orientation may be related to low efficiency, anxiety and avoidance of help-seeking and lack of adequate effort when completing tasks (Montecinos et al, 2014). A number of different classifications have been proposed in the literature in order to categorize teachers' goal orientations for teaching.

Butler (2007) classified goal orientations for teaching into four

categories. These are: (1) *mastery* (trying to learn and develop professional skills), (2) *ability-approach* (trying to display superior professional skills), (3) *ability-avoidance* (trying to avoid displaying low-level skills), (4) *work-avoidance* (trying to make as little effort as possible). In their teaching practices, teachers who have *mastery goal orientation* keep student participation high, enable students to interact, acknowledge students' efforts (Patrick et al, 2001) and provide rich learning opportunities that allow students to observe their own development (Thronsen and Turmo, 2012). Teachers focus on detailing and developing the strategies that they select to be able to carry out their teaching responsibilities in the best way possible. A teacher's effectiveness in his/her ability to select strategies appropriate for a teaching context also impacts on his/her confidence. The more effective a teacher becomes in selecting appropriate teaching strategies, the more difficult goals s/he set himself/herself to achieve (Steele-Johnson et al, 2000). Teachers who have ability approach orientation, on the other hand, are focused on showing their superior teaching skills and receiving compliments from people in their immediate environment such as school management, students, colleagues and families (Cho and Shim, 2013). Teachers who have the ability approach or performance orientation focus on skills differences among students, make comparisons among students in the classroom and use teaching methods that promote competition (Anderman et al, 2001). Such an approach results in classroom atmospheres where high-achieving students are prioritized, teaching processes are arranged to suit their needs and requests, the needs and interests of other students are disregarded and teachers do not really make an effort to teach. In addition, in classrooms where teachers with such orientations teach, the grades that students receive from exams are perceived to be important and significant (Anderman et al, 2001).

## Teachers and self-efficacy

Self-efficacy refers to 'people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances' (Bandura, 1997: 391). Individuals with positive self-efficacy are capable of determining what they learn, how much effort they should make for future learning and when they are right or wrong. On the other hand, people with low self-efficacies avoid difficult tasks and have lower endurance when faced with difficulties (Elliott and Dweck, 1988). Individuals' participation in realizing the goals they set in relation to a task, the amount of effort that they make and the types of goals they set for themselves are significant in their success (Hagen and Weinstein, 1995). Considering that individuals with different goal orientations also have different levels of endurance, it can be said that their beliefs in coping with these difficulties also affect their determination. Therefore, their goal orientations are parallel to their self-efficacy perceptions. From a teaching perspective, teachers' goal orientations for teaching are closely associated with their self-efficacy beliefs.

Teacher self-efficacy is described as teachers' beliefs about their ability to affect students' achievement of the desired learning outcomes (Wheatley, 2005), their beliefs about their

capacity to affect student performance (Ashton, 1984) and beliefs in the efficiency of their own teaching (Tai et al, 2012). The following are among the most important characteristics of teachers with high self-efficacy; they think that working with students is important and valuable, they have positive expectations regarding students' achievement and behaviour, they know they are also responsible for student failures and exhibit behaviours that aim to help students, they are organized in setting goals for student learning and choosing appropriate teaching strategies (Ashton, 1984), they have high beliefs that students will learn and are aware that this belief is likely to positively affect students and they create democratic decision-making mechanisms together with students. Teachers with low self-efficacy, on the other hand, prefer to avoid trying harder to help students achieve learning goals, their encouragement to teach is not enough, they consider factors apart from themselves to be responsible for student failures, they do not do sufficient self-reflection on their teaching practices, they exhibit negative emotions while working with students and they are weak in the selection of different methods, techniques, or materials. To summarize, as a result of avoiding carrying out the responsibilities that are required by their profession, such teachers decrease the effectiveness and quality of teaching/learning processes. This situation renders the study of the variables -which can affect self-efficacy- as an important research topic.

### **Attitudes towards teaching**

Attitudes are inner states or beliefs that affect what individuals want to do. This inner state refers to positive/negative or intentional/unintentional reactions to a person, a group of people, an object, a group of objects, a situation, or the environment in general (McMillan, 2013). In other words, attitude indicates an individual's emotional tendency in favour of or against a condition, event, object, place, or idea (Papanastasiou, 2002). Attitude -which stands out with its cognitive, behavioural and affective dimensions- is an orientation that affects people's behaviours. Considering this, it can be argued that teachers' attitudes towards their job are an important factor for doing their job. This is because teachers' attitudes towards teaching -being reflected in teachers' behaviours and classroom atmosphere- play a significant role in the character development of their students, the nature of teacher-student relationships and the provision of learning (Semerci and Semerci, 2004). Therefore, teacher attitudes provide important implications to understand classroom environments (Rimm-Kaufman and Sawyer, 2004). It is expected that teachers with positive attitudes towards their jobs will be teachers who willingly fulfil all of their responsibilities, who do research and who are open to innovation. The present study aimed to investigate whether teachers' goal orientations directly or indirectly affect their attitudes towards the teaching profession. Because it is assumed that teachers' goal orientations will be reflected on their teaching and these reflections will have significant effects on their attitudes towards teaching. In other words, considering that the behavioural dimension of the attitude can help identify the direction of an individual's attitude (Semerci and Semerci, 2004), it can be understood that this behavioural dimension

is likely to be influenced by teachers' goal orientations and this motivational dimension, together with other motivational factors in the context, will affect teachers' attitudes towards teaching.

### **Teachers and burnout**

Burnout is a syndrome in which individuals become emotionally exhausted and they become depersonalized and less successful (Gerrig and Zimbardo, 2005). This phenomenon is observed among employees working in jobs that require them to build close relationships with people. Burnout is also defined as a reduction in personal accomplishment among people who work with other people (Maslach, 1993). Based on this, depersonalization, personal accomplishment and emotional exhaustion can be considered to be sub-dimensions of burnout. Burnout is also described as a syndrome that has both physical and mental dimensions which contains long-lasting physical feelings of fatigue and helplessness and despair as well as negative attitudes towards an individual's job, life and other people (Maslach and Jackson, 1981). Burnout, which is also experienced by teachers, is a condition that does not only affect teachers' motivation, job satisfaction and health condition but also student behaviours and learning (Lamude, Scudder and Furno-Lamude, 1992; Pietarinen et al, 2013). Therefore, it is important to investigate the burnout levels of teachers and the impact ratings of other variables associated with burnout. Personal and environmental factors can affect teachers' burnout levels. For example, stressful work environments, crowded classes, school environments, managerial roles, individual differences, motivation and so on can trigger burnout. The responsibilities that teachers have in and out of school (i.e. responsibilities to the principal and students and teaching activities) result in situations that cause intensive stress at work (Cemaloğlu and Şahin, 2007). Research studies found that there was an important relationship between teachers' burnout and increase in the number of activities that they undertake in relation to performance goal orientation (Retelsdorf et al, 2010), that goal orientations were related to coping strategies that teachers used for overcoming difficulties and that those experiences were an important predictor of burnout (Parker et al, 2012). Additionally, burnout has been found to have a positive correlation with teachers' avoidance behaviours and a negative relationship with approach orientations (Naidoo et al, 2012). In summary, it is considered that a teacher who experiences burnout can avoid setting challenging goals which can decrease their professional performance and creating supportive learning environments in classrooms. Similar avoidance behaviours can cause teachers not to self-reflect on their effectiveness to teach which then might increase their burnout levels. The increased burnout levels might then dramatically decrease their quality of life and lead to deterioration in teaching efficiency (Carson, et al, 2011; Shen et al, 2015).

### **The aim and significance of this study**

The value of learning both at the individual and societal level increases the importance of the responsibility that teachers have. In line with this, it is also important to investigate the knowledge, skills and attitudes that teachers have and find out

how such variables impact on teaching/learning processes. Research has revealed that the variables examined in the present study correlate with teachers' behaviours. Teachers' behaviours and attitudes play an important role in determining whether they are effective teachers. Therefore, the present study aimed to explore the structural relationship among teachers' goal orientations for teaching, their self-efficacy and burnout levels and their attitudes towards teaching. The motivation for undertaking this study, the research problem and hypotheses are explained below.

Attitude is one of the variables studied in the present research. It is also considered as a variable that can be affected by other variables and the reason for why attitude is considered as a variable that is affected by other variable is explained as follows. Attitude is a determiner that affects individuals' actions. Traditionally, the definition of attitude included the tendencies and beliefs that individuals possess prior to action. Even though this definition explains the concept of attitude to a certain extent, it fails to capture the process of its occurrence. This is because even though our attitudes are considered to be determiners of our behaviours, we still need experiences so that we can form our attitudes. In other words, attitude is not only a tendency that affects behaviour but also is a phenomenon that is affected by our actions and can change its direction in time. Therefore, motivational factors can not only affect the behaviour that is yet to occur but also can transform into new patterns during the stage of behaviour. To provide an example, it would not be realistic to expect a child who does not attend a school to develop an attitude towards the school. This is because the child does not have any negative or positive experience about the school. Therefore, the experiences and the perceptions that individuals develop over time are key to forming attitudes.

Similarly, feelings and perceptions with regards to teaching can develop during a teacher's teaching career. Therefore, other variables that affect such feelings and perceptions are considered to be important and the extent to which those other variables affect attitude is studied in the present research.

In line with this aim, an answer to the following research problem has been sought and the following hypotheses were tested:

**Main problem:** How do teachers' goal orientations for teaching (ability approach, mastery and work avoidance) predict their teacher self-efficacy, burnout and attitudes towards teaching?

**Hypothesis1 (H1):** *Teacher self-efficacy is a mediator in predicting the effects of teachers' goal orientations (ability approach, mastery and work avoidance) on their attitudes towards teaching.*

Butler (2007) explained that goal orientation hypotheses for teachers, because of their nature, would be similar to the ones that have been proposed for student behaviours and outcomes. In goal orientations theory, considering that a situation or action's aim and meaning are related to determining motivation (Ford, 1992; Fyans et al, 1983), these orientations will result in individuals' actions towards the accomplishment of their aims. In other words, goal orientations have the capacity to affect an individual's actions and other motivational dimensions. Goal orientations for teaching are also related to attitudes

towards the teaching profession. However, having high goal orientations does not guarantee a high level of positive attitudes for the teaching profession. Other variables should be taken into account in this equation. This is because not only the meanings we put on our actions but also our beliefs on whether our teaching practices are sufficient or not are considered to affect attitudes. In other words, our orientations prior to starting a teaching-related activity and our perceptions whether we have the capacity to provide sufficient teaching activities or not to enable learning affect our performance and this, in general, results in positive or negative attitudes. The most important argument in relation to this is that attitudes are not considered to be independent of an individual's actions. Therefore, in this study, it is hypothesized that goal orientations affect attitudes toward the teaching profession through measures of self-efficacy.

**Hypothesis2 (H2):** *Burnout level is a mediator in predicting the effects of teachers' goal orientations (ability approach, mastery and work avoidance) on their attitudes towards teaching.*

Burnout is a syndrome that manifests itself gradually as a result of an individual's experiences (Peeters and Rutte, 2005). As a result of this syndrome, individuals feel emotionally exhausted and adopt a manner in which they distance themselves from and are harsh to learners, parents and colleagues. Teachers who are burning out generally feel insufficient and consider themselves to be no longer doing an important or meaningful job (Maslach, Schaufeli and Leiter, 2001; Schaufeli and Buunk, 2003). There are studies in the literature which have found that the goal orientations are determiners of burnout (Retelsdorf et al, 2010). The research hypothesis was developed in line with those ideas. For example, it is considered that teachers with work avoidance goal orientation are considered to be under a greater risk of burnout. This suggests that teachers' burnout levels can be negatively affected when they experience a negative situation in the teaching process or other actions whilst trying to increase their professional knowledge and skills. Therefore, goal orientations and the different dimensions of burnout that comes with them will shape teachers' ideas, feelings and actions which will also allow the development of general feelings and ideas towards the profession. For these reasons, it is hypothesized that goal orientations affect attitudes toward the teaching profession through measures of burnout.

**Hypothesis3 (H3):** *Both teacher self-efficacy and burnout levels are mediators in predicting the effects of teachers' goal orientations (ability approach, mastery and work avoidance) attitude towards teaching.*

In this part of the study, the effect that the goal orientations created through self-efficacy and burnout was tested. Burnout is not independent of self-efficacy. There is a systematic relationship between burnout and self-efficacy. The literature suggests that low teacher self-efficacy would result in burnout feelings among teachers (Evers, Brouwers and Tomic, 2002). Similarly, Bandura (1997) explained; those teachers with low self-efficacy levels considered their environment to be full of dangers, they were focused on their inefficiency to solve those problems and they overestimated potential dangers. Therefore, this pattern of cognitive and emotional responses is expected to

increase emotional exhaustion and depersonalization (Skaalvik and Skaalvik, 2007). A teacher who has started to perceive themselves as inefficient is considered to have faster burnout. This study aimed to test how teachers' self-efficacy perceptions affected their burnout levels based on their goal orientations and how this affected their attitudes towards teaching.

## MATERIALS AND METHODS

### Research design

The study investigated the structural relationship among specific variables (goal orientations, self-efficacy, burnout and attitudes) through the data collected from teachers working in public schools in Turkey. These variables have been evaluated theoretically and hypothetical structural equation models were created which were then tested.

### Participants

495 teachers, who worked in the Central Anatolia region of Turkey, participated in the study. In this research, the data collection process took place between 2017 and 2018. Those teachers worked at different school levels (i.e. primary, secondary, or high school) and taught different subjects (i.e. mathematics, Turkish, science and so on). The teacher population who participated in the study included 315 female and 183 male participants (one participant did not specify his/her gender). Additionally, those teachers worked in schools located in the countryside as well as counties and city centres. Their teaching experience ranged between 1-5 years and 16-20 years.

### Data collection tools

The following instruments have been used in this study; “Goal Orientations for Teaching Scale”, “Teacher Self-Efficacy Scale”, “Burnout Scale” and “Attitudes towards Teaching Scale”.

#### Goal Orientations for Teaching Scale

Goal Orientations for Teaching, developed by Butler (2007), initially comprised of four dimensions. Relationship with students was later on added to the scale as the fifth dimension by Butler (2012). Butler and Shibaz (2014) included an additional item into the mastery dimension. The scale is a five-point Likert scale. Butler and Shibaz (2014) conducted Exploratory and Confirmatory Factor Analysis (EFA and CFA) results of which yielded 21 items and five factors; 1) Ability-approach, 2) Mastery, 3) Ability-avoidance, 4) Work-avoidance and 5) Relationship with Students. The Turkish adaptation of the scale was carried out by Yıldızlı, Saban and Baştuğ (2016). The final version of the Turkish adaptation of the scale consisted of 15 items and four factors. The scale used in the present study focused on *Mastery*, *Ability-approach* and *Work-avoidance* dimensions and a CFA was re-conducted. The dimensions of relations with students were not included in the research. The CFA results suggested that the factor loadings of items within the scale ranged between .241 and .744. Model fit indices were calculated as:  $\chi^2/df=1,908$ , RMSEA=.043, IFI=.971, TLI=.955, CFI=.970. The analysis of Cronbach's Alpha levels of these dimensions and the total variance they explained were;.713

for *ability-approach goal orientation* (explaining 58.442% of total variance),.447 for *Mastery-goal orientation* (explaining 46.958% of total variance) and .714 for *Work-avoidance Goal Orientation* (explaining 54.160% of total variance).

### Teacher Self-efficacy Scale

The original version of the “Teacher Self-Efficacy Scale” utilized in this study was developed by Tschannen-Moran and Woolfolk Hoy (2001). Validity and reliability analyses for the Turkish adaptation of that scale were carried out by Çapa, Çakıroğlu and Sarıkaya (2005). The original scale was a five-point Likert scale. The scale consisted of 24 items and three factors (efficacy for student engagement, efficacy for classroom management and efficacy for instructional strategies). Confirmatory Factor Analysis (CFA) analysis was re-conducted for this scale in the present study and it was found that factor loadings for items within the “student engagement” dimension ranged between .515 and .749 and between .580 and .713 for items within “teaching strategies” dimension. Model fit indices were;  $\chi^2/df=3.004$ , RMSEA=.064, IFI=.955, TLI=.943, CFI=.955. The fact that  $\chi^2$  value was between two and five ( $2 < \chi^2/df \leq 5$ ) suggested that an acceptable level of fit was achieved. The Cronbach's Alpha coefficient levels of these dimensions and the amount of variance they explained were as following;.881 for *student engagement* dimension (explaining 55.563% of total variance) and .872 for *teaching strategies* (explaining 52.967% of total variance). Overall Cronbach's Alpha level for the scale was .927 and it explained 62.018% of total variance.

### Burnout Scale

*Maslach Burnout Inventory- Educators Survey (MBI-ES)* which was adapted by Maslach, Jackson and Scwab (1996) into educational contexts from the original MBI developed by Maslach and Jackson (1981) was utilized in order to measure participants' burnout levels. MBI-ES has been adapted into the Turkish context by İnce and Şahin (2015). The original MBI-ES scale consisted of 22 items and 3 factors (emotional exhaustion, depersonalization and personal accomplishment). The validity and reliability analyses conducted by İnce and Şahin (2015) showed that Cronbach's Alpha levels for the dimensions were;.88 for *Emotional Exhaustion*,.78 for *Depersonalization* and .74 for *Personal Accomplishment*. CFA was re-conducted in the present study and results suggested that factor loadings for items within the *Emotional Exhaustion* dimension ranged between .436 and .832, between .381 and .650 for items within *Personal Accomplishment* dimension and between .249 and .662 for items within *Depersonalization* dimension. The items of the *Personal Accomplishment* dimension were reversed when the hypothesis models were tested. Model fit indices were calculated as;  $\chi^2/df=2.274$ , RMSEA=.051, IFI=.938, TLI=.918, CFI=.937. Cronbach's Alpha levels and total variance explained were as following;.846 for *Emotional Exhaustion* (explaining 58.601% of total variance),.765 for *Personal Accomplishment* (explaining 38.206% of total variance) and .734 for *Depersonalization* (explaining 48.988% of total variance). Overall Cronbach's Alpha level for the whole scale was .864 and it explained 56.475% of total variance.

## Attitudes towards Teaching Scale

Üstüner's (2006) "Attitudes towards Teaching Scale", which consists of 34 items, was used in order to measure teachers' attitudes towards their job. Receiving high scores from the scale indicates an individuals' positive attitude towards teaching while low scores indicate negative attitudes towards teaching. The scale consists of one factor. Factor loadings of items within the scale ranged between .41 and .71 and item total correlations were between .43 and .75. Test/re-test reliability coefficient was used to calculate reliability. Cronbach's Alpha internal reliability was calculated as .93. The original scale was a five-point Likert scale. The scale consisted of both positive and negative statements. The following are examples of negative statements: "In my opinion, the teaching profession is boring", "I think the teaching profession does not match my lifestyle" and "I regret having chosen teaching as a profession". The following are examples of positive statements: "I feel proud to be able to touch on people's lives through my teaching", "The continuity of the teaching profession reassures me". A number of items (20, 22, 24, 27, 29 and 33) in this scale were removed since they were directed to pre-service teachers. To provide examples; "I think there are many things that I can achieve

when I become a teacher", "Thinking that I will become a teacher frightens me". Confirmatory Factor Analysis (CFA) was re-conducted in this study. Factor loadings of items ranged between .354 and .752. Model fit indices were calculated as;  $\chi^2/df=2.336$ , RMSEA=.052, IFI=.915, TLI=.899, CFI=.914. Overall Cronbach's Alpha level of the scale was .937 and it explained 63.408% of total variance.

## Data analysis

Initially, Confirmatory Factor Analysis (CFA) was carried out for questionnaire items that were used in scales. Several fit indices such as  $\chi^2/df$ , root mean square error of approximation (RMSEA), non-normed fit index (NNFI/TLI), incremental fit index (IFI) and comparative fit index (CFI) for evaluating the CFA results. The criteria for the evaluation of CFA results are presented in Table 1. In addition, in few cases, there were missing data in few participants' responses. That deleting data of participants with missing data can cause bias (Osborne, 2013) was taken into consideration in situations where the missing data was associated to other variables. In such cases, missing data was replaced with the mean.

Fit indices	Good fit	Acceptable fit
<sup>1</sup> $\chi^2/df$	$0 \leq \chi^2/df \leq 2$	$2 < \chi^2/df \leq 3$
<sup>3</sup> RMSEA	$0 \leq RMSEA \leq .05$	$.05 < RMSEA \leq .08$
<sup>2</sup> IFI	$.95 \leq IFI \leq 1$	$.90 \leq IFI \leq .95$
<sup>2</sup> CFI	$.95 \leq CFI \leq 1$	$.90 \leq CFI \leq .95$
<sup>2</sup> TLI	$.95 \leq TLI < 1$	$.90 \leq TLI < .95$

<sup>1</sup>(Kline, 2011), <sup>2</sup>(Baumgartner and Homburg, 1996; Bentler and Bonett, 1980; Marsh et al, 2006), <sup>3</sup>(Browne and Cudeck, 1993)

**Table 1: Fit indices and acceptance levels**

In the second stage, the models generated based on hypotheses were tested. Teacher self-efficacy was analysed through teaching strategies and student engagement sub-dimensions. In addition, these analyses were imputed with CFA analyses. Furthermore, burnout was analysed through emotional exhaustion, depersonalization and personal accomplishment sub-dimensions. Like, self-efficacy analyses, analyses of burnout were imputed with CFA analyses. In other words, the sub-dimensions became the observed variables of the latent variables (self-efficacy and burnout). The models in this study were based on latent variables. The criteria set in Table 1 were also used in testing the proposed models. CFA and analyses that relate to theoretical models were conducted using SPSS 21 and AMOS 21 software.

## RESULTS

### Descriptive statistics

Initially, descriptive statistics relating to the variables investigated in the study are presented (see Table 2). Following descriptive statistics, the structural models developed based on the hypotheses were tested and the results of the analyses are included below.

It can be seen in Table 2 that participating teachers' mean

score for mastery-goal orientation ( $\bar{x}=4.28$ ) was higher than their mean scores for ability-approach ( $\bar{x}=3.36$ ) and work-avoidance ( $\bar{x}=3.48$ ) goal orientations. In addition, the mean scores for teachers' self-efficacy and burnout levels were found to be  $\bar{x}=3.69$  and  $\bar{x}=2.19$  respectively. On the other hand, the mean score for the attitudes towards teaching dimension was high ( $\bar{x}=3.99$ ). Correlation analyses indicated that the positive relationship between ability-approach and mastery ( $r=.293$ ) goal orientations and between ability-approach goal orientation and attitudes towards teaching ( $r=.200$ ) were significant ( $p<.005$ ). On the other hand, no significant relationship was found between ability-approach goal orientation and the remaining variables (self-efficacy, burnout). Details in Table 2 also show that mastery-goal orientation was significantly and positively correlated to self-efficacy ( $r=.234$ ;  $p<.005$ ) and attitudes towards teaching ( $r=.308$ ;  $p<.005$ ). Similarly, there was a significant but negative correlation between mastery-goal orientation and burnout ( $r=-.246$ ;  $p<.005$ ). The relationship between mastery-goal orientation and work-avoidance goal orientation, on the other hand, was positive but was close to zero and not significant ( $r=.015$ ;  $p>.005$ ). In addition, self-efficacy and attitudes towards teaching were significantly and positively correlated ( $r=.359$ ;  $p<.005$ ). Although the correlation between self-efficacy and work-avoidance goal orientation

was significant, the direction of this relationship was negative ( $r=-.284; p<.005$ ). Last but not least, there was a significant and

negative relationship between burnout and attitudes towards teaching ( $r=-.658; p<.005$ ).

	N	Mean	df	Mastery	Ability-approach	Work-avoidance	Self-efficacy	Burnout	Attitude
Mastery	495	4.28	3.28	1					
Ability-approach	495	3.36	3.69	.293**	1				
Work-avoidance	495	3.48	3.51	-.015	-.366**	1			
Self-efficacy	495	3.69	9.23	.234**	.021	.145**	1		
Burnout	495	2.19	11.49	-.246**	-.061	-.282**	-.284**	1	
Attitude	495	3.99	17.31	.308**	.200**	.137**	.359**	-.658**	1

\*\*  $p<.01$

Table 2: Latent bivariate correlations and descriptive statistics

## Research Hypotheses and Structural Equation Models

**H1:** Teachers' goal orientations for teaching (ability approach, mastery and work avoidance) predict their attitudes towards teaching through self-efficacy.

This model tested whether teachers' mastery, ability-approach and work-avoidance goal orientations can predict their attitudes towards teaching through the measure of self-efficacy. Considering the criteria set in Table 1, the analysis of the significance of the paths in the model (CMIN=1271.745,  $df=656$ ,  $\chi^2/df=1.939$ , RMSEA=.044, IFI=.940; TLI=.927; CFI=.939) suggested that the paths between mastery-goal orientation and self-efficacy ( $\beta=.63$ ), between work-avoidance goal orientation and self-efficacy ( $\beta= -.38$ ) and between self-efficacy and attitude towards teaching ( $\beta=.72$ ) were significant.

However, the path between ability-approach goal orientation and self-efficacy was not significant ( $\beta=.15$ ) (see Figure 1.). According to these results; mastery goal orientation -through self-efficacy- is a positive predictor of attitudes towards teaching, work-avoidance goal orientation -through self-efficacy- is a negative predictor of attitudes towards teaching, but ability-approach goal orientation -through self-efficacy- does not predict attitudes towards teaching. In other words, as teachers' mastery-goal orientations increase so does their self-efficacy for teaching and this positively affects their attitudes towards teaching. On the other hand, as teachers' work-avoidance goal orientations increase, their self-efficacy for teaching decreases and this negatively affects their attitudes towards teaching.

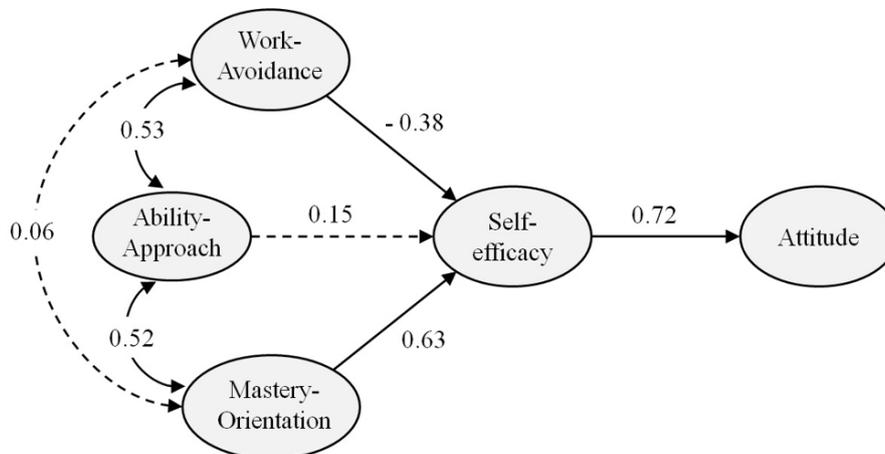


Figure 1: Structural equation model showing the association of teachers' goal orientations with their attitudes and self-efficacy in H1; all variables are latent; for the sake of clarity errors and indicators are not presented. Significant relationships are represented with a straight line while the insignificant ones are represented with dashed lines.

Variables		Estimate	S.E.	C.R.	p
Self-efficacy	Ability-approach	.049	.038	1.278	.201
Self-efficacy	Work-avoidance	-.131	.037	-3.535	***
Self-efficacy	Mastery orientation	.345	.067	5.159	***
Attitude	Self-efficacy	2.247	.327	6.865	***
Ability-approach	Work-avoidance	.299	.046	6.507	***
Mastery orientation	Work-avoidance	.020	.023	.872	.383
Mastery orientation	Ability-approach	.187	.029	6.385	***

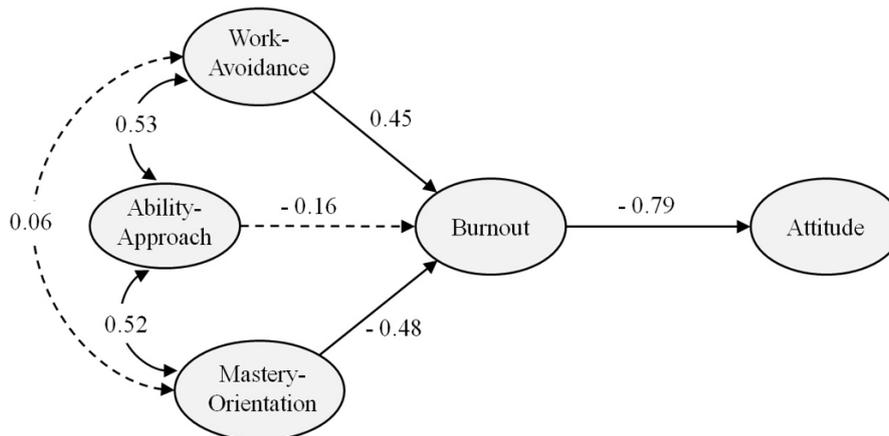
\*\*\*  $p < .05$

**Table 3: Standardized regression weights and significance levels**

**H2:** Teachers goal orientations towards teaching (skills approach, mastery and work avoidance) predict their attitudes towards teaching through burnout measures.

In this model, we tested whether teachers' mastery, ability-approach and work-avoidance goal orientations can predict their attitudes through the measure of burnout levels. Considering the criteria set in Table 1, the analysis of the significance of the paths in the model (CMIN=1506.501,  $df=695$ ,  $\chi^2/df=2.168$ , RMSEA=.049, IFI=.923, TLI=.908, CFI=.922) suggested that the paths between mastery-goal orientation and burnout levels ( $\beta = -.49$ ), between work-avoidance goal orientation and burnout ( $\beta = .452$ ) and between burnout and attitude towards teaching ( $\beta = -.79$ ) were significant. However, the path

between ability-approach goal orientation and burnout was not significant ( $\beta = -.163$ ) (see Figure 2.). These results suggest that; mastery-goal orientation and work-avoidance goal orientation affects attitudes towards teaching through burnout measures. Ability-approach goal orientation, on the other, does not predict attitudes towards teaching through burnout measures. To put it differently, as teachers' mastery goal orientations increase, their burnout levels decrease and this positively affects teachers' attitudes towards teaching. On the contrary, as teachers' work-avoidance goal orientations increase so does their burnout levels which negatively affects teachers' attitudes towards teaching.



**Figure 2: Structural equation model showing the association of teachers' goal orientations with their attitudes and burnout in H2; all variables are latent; for the sake of clarity errors and indicators are not presented. Significant relationships are represented with a straight line while the insignificant ones are represented with dashed lines.**

Variables		Estimate	S.E.	C.R.	p
Burnout	Ability-approach	-.046	.028	-1.656	.118
Burnout	Work-avoidance	.136	.028	4.807	***
Burnout	Mastery orientation	-.232	.044	-5.255	***
Attitude	Burnout	-3.010	.270	-11.148	***
Ability approach	Work-avoidance	.285	.044	6.430	***
Mastery orientation	Work-avoidance	.020	.021	.942	.346
Mastery orientation	Ability-approach	.176	.028	6.244	***

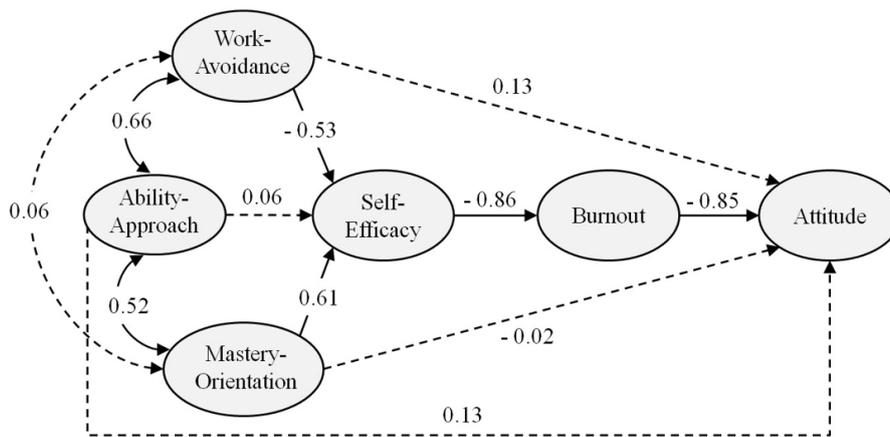
\*\*\*  $p < .05$

**Table 4: Standardized regression weights and significance levels**

**H3:** Teachers' goal orientations for teaching (ability approach, mastery and work avoidance) predict and directly affects attitude towards teaching through self-efficacy and burnout measures.

In this model we tested whether teachers' mastery, ability-approach and work-avoidance goal orientations can predict teachers' attitudes towards teaching through self-efficacy and burnout measures. Considering the criteria set in Table 1, the analysis of the significance of the paths are presented in the model ( $\chi^2=1653.050$ ,  $df=771$ ,  $\chi^2/df=2.144$ ,  $RMSEA=.048$ ,  $IFI=.927$ ,  $TLI=.913$ ,  $CFI=.926$ ). These results suggested paths between mastery-goal orientation and self-efficacy ( $\beta=.324$ ), self-efficacy and burnout ( $\beta= -.761$ ) and burnout and attitudes towards teaching ( $\beta= -.852$ ) were significant. Furthermore, the analysis of work-avoidance goal orientation path with self-efficacy was also significant ( $\beta= -.175$ ) (see Figure 3).

However, ability-approach goal orientation's path with self-efficacy was not significant ( $p=.594$ ). Similarly, mastery ( $p=.842$ ), work-avoidance ( $p=.145$ ) and ability-approach goal orientations' ( $p=.104$ ) paths with attitudes towards teaching were not significant. These results indicate that as teachers' mastery goal orientations increase so does their self-efficacy which decreases burnout levels and positively affects teachers' attitudes towards teaching. In addition, as teachers' work-avoidance goal orientations increase, their self-efficacy decreases which results in an increase in burnout levels and negatively affects attitudes towards teaching. It is worth to note that ability-approach was not found to significantly affect attitudes towards teaching through self-efficacy or burnout measures. Last but not least, it has also been found that teachers' goal orientations have a direct effect on their attitudes towards teaching.



**Figure 3:** Structural equation model showing the association of teachers' goal orientations with their attitudes, self-efficacy and burnout in H3; all variables are latent; for the sake of clarity errors and indicators are not presented. Significant relationships are represented with a straight line while the insignificant ones are represented with dashed lines.

Variables	Estimate	S.E.	C.R.	p
Self-efficacy Ability-approach	.019	.036	.553	.594
Self-efficacy Work-avoidance	-.175	.039	-4.460	***
Self-efficacy Mastery orientation	.324	.065	4.996	***
Burnout Self-efficacy	-.761	.110	-6.945	***
Attitude Ability-approach	.137	.084	1.625	.104
Attitude Work-avoidance	.140	.096	1.456	.145
Attitude Mastery orientation	-.032	.161	-.199	.842
Attitude Burnout	-3.202	.430	-7.454	***
Ability approach Work-avoidance	.295	.045	6.530	***
Mastery orientation Work-avoidance	.019	.023	.857	.392
Mastery orientation Ability-approach	.183	.029	6.343	***

\*\*\*  $p < .05$

**Table 5:** Standardized regression weights and significance levels

## DISCUSSION

The present study investigated whether teachers' goal orientations towards teaching (mastery, work-avoidance and ability-approach) could, through self-efficacy and burnout measures, predict teachers' attitudes towards teaching. In line with this aim, hypothetical models were developed and tested.

Initially, descriptive statistics and correlations among the variables were evaluated. The results showed that mastery-goal orientation and ability-approach goal orientation scores were high among participating teachers with the former being considerably higher than the latter. In addition, the mean for participant scores for the work-avoidance goal orientation was low. Based on this, it is considered that

teachers' goal orientations for teaching were more focused on mastery. With regards to their goal orientation scores, teacher scores in the present study were at similar levels to Saban and Yıldızlı's (2017) study. In general, teachers' scores were high in the mastery-goal orientation, self-efficacy for teaching and attitudes towards teaching dimensions. Analysis of correlations between variables highlighted a positive relationship between ability-approach goal orientation and mastery-goal orientation as well as attitudes towards teaching. Ability-approach did not have a significant relationship with any other variable. There was a positive and significant correlation between mastery-goal orientations and self-efficacy and attitude towards teaching. Similarly, mastery-goal orientation was found to have a significant but negative relationship with burnout. An interesting finding was that no significant relationship was found between mastery-goal orientation and work-avoidance goal orientation. Similarly, work-avoidance goal orientation was found to have a negative significant relationship with self-efficacy and attitude towards teaching dimensions. Moreover, work-avoidance was also found to have a positive significant relationship with burnout. There are studies in related literature which have found; a significant positive relationship between ability-approach and mastery-goal orientation (Retelsdorf et al, 2010), non-significant relationship between mastery and work-avoidance relationship (Butler, 2007; Butler, 2012), a significant and high correlation between mastery-goal orientation and self-efficacy (Kucsera et al 2011; Retelsdorf et al, 2010; Throndsen and Turmo, 2012), a significant negative correlation between mastery-goal orientation and a positive correlation between burnout and work-avoidance (Retelsdorf et al, 2010). Furthermore, related literature includes studies that have found negative correlations between self-efficacy and burnout (Ayra and Kösterelioğlu, 2015; Herman, Hickmon-Rosa and Reinke, 2018; Schwarzer and Hallum, 2008; Skaalvik and Skaalvik, 2007). Similarly, few studies have also found positive correlations between self-efficacy and attitudes towards teaching (Çapri and Çelikkaleli, 2008; Demirtaş, Cömert and Özer, 2011). Those studies support the findings of the present study.

With regards to the hypothetical models developed in this research, firstly, Hypothesis 1 (H1) (Model 1) tested whether teachers' goal orientations (mastery, ability-approach and work-avoidance) could predict teachers' attitudes towards teaching through self-efficacy measures. The results showed that, through self-efficacy measures, mastery-goal orientation is a positive predictor and work-avoidance goal orientation is a negative predictor of attitudes towards teaching. Ability-approach goal orientation could not predict teachers' attitudes towards teaching. These findings can be interpreted as follows: It is considered that teachers with mastery-goal orientations (trying to learn more and professionalize) have higher levels of self-efficacy since they are aware of their professional qualifications and focus on developing those qualities. Thus, it is expected that teachers who focus on learning more would become teachers who can engage their learners and make effective use of a variety of teaching strategies. This result was, in fact, an expected outcome of

the present study. Similar results were achieved in Retelsdorf and Günther's (2011) as well as Nitsche et al's (2011) studies. Teachers' self-efficacy beliefs about teaching activities have been found to be predictors of their emotional, cognitive and behaviouristic dimensions. Teachers who believe that they are efficient are more likely to be consistent in trying harder, being more willing to teach and being more open to change and adaptation. Moreover, there are studies in the literature which have found that teachers with high levels of self-efficacy create learning-centred classes (Wolters and Daugherty, 2007) and such teachers are more likely to assign students with challenging tasks that would enable them to think more critically and independently (Retelsdorf et al, 2010). Related literature and the findings in the present study indicate: Teachers who consider themselves to be self-efficient would act more consistently in making an effort to learn more, being more eager to learn and readjusting themselves in line with developments. Therefore, such teachers are likely to feel more successful when they see that they learn more about themselves in the classroom, when there are incidents that push them to think and when they can overcome problems and realize that they teach better than they did in the past. In such environments, outcomes for teaching and learning will be at desired levels for both teachers and students (Butler and Shibaz, 2008). The self-efficacy that teachers develop as a result of teaching practices will help teachers endure difficulties. Such situations will be predictors of attitudes towards teaching.

Another goal orientation that has been tested in this study was work-avoidance. As expected, teachers who have high levels of work-avoidance goal orientation are less eager to teach (Retelsdorf et al, 2010) and this prevents them from showing the desired performance in classrooms when they are faced with difficult situations. In addition, such teachers generally do not have the tendency to develop their skills for teaching. Such situations can negatively affect teachers' self-efficacy beliefs for teaching. The reason for this is the idea that teachers' teaching practices reflect their beliefs towards learning and, thus, their goals for students (Midgley, 2002). Therefore, teachers' beliefs of their self-efficacy for teaching can affect their attitudes and behaviours in classrooms (Dadandı, Kalyon and Yazıcı, 2016). For example, Gorozidis and Papaioannou (2011) have found that teachers' self-efficacy for teaching is a predictor of their attitudes to implement the curriculum. It is understood that teachers' orientations and the resulting self-efficacy perceptions can affect how they carry out the responsibilities of their profession.

Another goal orientation investigated in the present study was the ability approach. From an ability approach perspective, it is important that teachers' high-level teaching skills are observed by others and that such teachers become favourite teachers of school management and be constantly compared to other teachers. A notable aspect that should be discussed in relation to this goal orientation is that ability-approach goal orientations can differ across cultures (Shim, Cho and Cassady, 2013). In some cultures (e.g. the Turkish culture) doing a job just for the sake of showing others that they are doing the job is not something that is approved by society.

Therefore, ability-approach goal orientation is not expected to affect self-efficacy or attitudes towards teaching. A number of studies in the literature have also found that ability approach (i.e. performance approach) goal orientation was not correlated with self-efficacy (Middleton and Midgley, 1997; Shim and Ryan, 2005).

In hypothesis 2 (H2) (Model 2), it was found that mastery and work-avoidance goal orientations, through burnout measures, predicted attitudes towards teaching. Ability-approach, on the other hand, could not predict attitudes towards teaching through burnout measures. Burnout is an important dimension for teachers to be able to fulfil their teaching responsibilities. It is a known fact that the teaching profession requires high levels of efforts and, therefore, professionals working in education are known to be susceptible to burnout (Chang, 2009). Considering different types of goal orientations, in their efforts to be effective teachers with mastery goal orientations are expected to try hard, do research, learn and develop themselves and carry out activities that require effort and also support students in the learning process. Therefore, teachers with such mindsets are more likely to love their jobs, be happy when they leave home for work and when they work with students, appreciate students and try to affect them in a positive manner, be hopeful, not escape workload and try to be a successful teacher. These findings are in line with the findings of related literature. For example, Parker et al (2012), Retelsdorf et al (2010), Tönjes and Dickhäuser (2009) and Tönjes, Dickhäuser and Kröner (2008) have all found ability/mastery goal orientation to be negatively correlated to burnout levels. Similarly, in Retelsdorf et al (2010), it has been found that work avoidance goal orientation -since it is related to negative behaviour patterns- is a significant predictor of burnout levels. In fact, research studies have found that work-avoidance goal orientations can have negative effects on student learning (Gable, Reis and Elliot, 2000). Work-avoidance has also been found to be associated with emotional sensitivity in stressful work environments (Heponiemi et al, 2003), lesser personal well-being (Coats, Janoff-Bulman and Alpert, 1996) and negative emotions (Lench and Levine, 2008; Naidoo et al, 2012). In line with this, it is possible to argue that the negative consequences that this goal orientation can result in also negatively affect attitudes towards the teaching profession. As such, the findings of the present study support this argument. Another finding of this study was the insignificance of the correlation between ability-approach goal orientation and attitudes towards teaching through burnout measures. This finding is discussed in detail in the next paragraph considering the findings of Model 1 (H1) and Model 3 (H3).

The findings of Model 3 (H3) indicated that teachers' goal orientations for teaching are not indicators of their attitudes towards teaching. This finding can be explained as following: Factors affecting motivational beliefs are synchronized with a number of variables (Skaalvik and Skaalvik, 2007) and since people form their attitudes following certain experiences, it should be expected that such experiences would also affect other motivational factors. Therefore, attitudes towards teaching can be considered to be interrelated with other

motivational factors. As Sarason (1977: 21) has noted, 'work is not a 'here and now phenomenon' unrooted in a perceived past and future'. Another finding in relation to H3 is that as teachers' mastery-goal orientation increases, so does their self-efficacy and this causes burnout levels to decrease which results in more positive attitudes towards teaching. In addition, as teachers' work-avoidance goal orientations increase, their self-efficacy decreases and this causes burnout levels to increase which negatively affects attitudes towards the profession. One other important finding was that ability approach did not have a significant effect on attitudes towards teaching through self-efficacy or burnout measures, nor was it a direct predictor of teachers' attitudes towards teaching. One of the explanations for why ability approach goal orientations did not have an effect on the variables studied can be: Ability-approach goal orientations indicate teachers have the tendency to show others that their teaching activities are adequate and successful. Therefore, this goal orientation can easily be affected by factors that encourage competition in the work environment. This study has been conducted with public school teachers in Turkey and it has been found that the control mechanisms existing in public schools in Turkey are not adequate in supporting a competitive job environment (Altun, 2014; Aslanargun and Göksoy, 2013; Kurtar, 2018). Therefore, the fact that there are not enough opportunities for teachers to be able to demonstrate their skills might prevent them from displaying certain behaviours associated with this goal orientation. Since mastery-goal orientation is perceived as an opportunity to develop skills and knowledge, this orientation is closely related to trying hard and resisting against difficulties and self-efficacy (Montecinos et al, 2014). Individuals with mastery-goal orientations evaluate themselves when faced with a new and difficult situation and are aware of what actions they should or should not take (Retelsdorf and Günther, 2011; Nitsche et al 2011). This awareness is very important for professional development. Therefore, teachers' goal orientations can affect their beliefs. Being inefficient and unsuccessful in a profession is one of the factors that can cause burnout. This can be related to self-efficacy at the same time. It can be argued that a teacher who considers him/herself as inefficient will be less likely to take action to become successful (Skaalvik and Skaalvik, 2007). Therefore, it is an expected outcome that teachers who display poor performance do not become successful in their jobs which can increase their burnout levels. This situation indicates that self-efficacy is a meaningful indicator of burnout, a finding that is supported by existing studies in the literature (Evers, Brouwers and Tomic, 2002; Brouwers and Tomic, 2000; Skaalvik and Skaalvik, 2007). It is possible that teachers who feel inefficient and who are not motivated to succeed or develop professionally will have negative attitudes towards teaching. And this situation indicates that burnout is a meaningful indicator of attitudes towards teaching. As such, there are a number of studies in the literature supporting this finding (Evers, Brouwers and Tomic, 2002); however, further studies in this area are needed to establish a stronger foundation.

## CONCLUSION

While a number of different scales have been used in the present study, few sub-dimensions within scales were removed. For example, “relationship with students” goal orientation has not been evaluated in the present study. Similarly, classroom management sub-dimension of self-efficacy has not been evaluated either. The biggest problem that the researcher conducting this study experienced was the fact that the longer time it took teachers to complete the questionnaires the more bored they became which might have prevented them from giving honest and sincere responses. Therefore, the sub-dimensions mentioned above were removed in an effort to decrease the time that teachers would spend to complete the questionnaire items and increase the chances of receiving more reliable answers. In addition, the demographic data collected from participants were not analysed. Future research can integrate demographics such as teaching experience or the kind of school teachers’ work into such models. Attitudes towards the teaching profession were considered as a variable that can

be affected by the other variables investigated in the present study. Therefore, future research can investigate attitudes towards the profession as a variable that can affect the other variables being studied. In addition, researchers can also carry out in-depth investigations of how the ability-approach goal orientation differs across cultures. The present study is limited to teachers working in Turkey. Thus, the dynamics affecting teachers’ ability approach goal orientations can be studied in other cultures (countries, regions, or cities). Alternatively, qualitative research studies that would investigate what school and classroom environments are associated with this goal orientation can be conducted. Case studies can also be conducted in order to better understand under what circumstances goal orientations change. Longitudinal studies can be carried out to better understand how teachers’ goal orientations change over time. Last but not least, teachers’ relationships with students, school management and families should also be investigated since those variables can be interrelated with teachers’ goal orientations.

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