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Efficacy Beliefs and Metacognitive Awareness in English Language Teaching and Teacher Education

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Abstract

Teacher self-efficacy and metacognitive awareness could be regarded as significant in teaching and teacher education due to psychological and cognitive aspects of them which are directly linked to quality of teaching since 21st century skills which involve elaborate use of cognitive skills also necessitate teachers having those skills as well, which is part of metacognitive awareness. Thus, this paper presents findings of a mixed-method study that has been conducted with pre-service (*N*=97) and in-service (*N*=53) English language teachers on their perceived levels of teacher self-efficacy and metacognitive awareness and aimed to explore any similarities or differences between the two groups in the two variables taking into account that a comparison could reveal further issues to consider such as factor leading to them. For this purpose, teacher self-efficacy scale developed and validated by the researchers and Metacognitive Awareness Inventory (Schraw & Dennison, 1994) were administered to the participants and followed by semi-structured interviews focusing on in-depth analyses of quantitative data. The findings indicated that in-service teachers had higher levels of metacognitive awareness than pre-service teachers whereas levels of their teacher self-efficacy were not significantly different. Qualitative data, on the other hand, suggested a number of factors leading to that difference.

Keywords: Teacher self-efficacy, metacognitive awareness, English language teacher education

İngilizce Öğretmenliği ve Öğretmen Eğitiminde Öz-Yeterlik İnançları ve Üst Bilişsel Farkındalık

Öz

Bilişsel becerilerin etkili biçimde kullanılmasını içeren 21. Yüzyıl becerilerinin vurgulandığı bir eğitim sisteminde, öğretmenlerin de bu becerilere sahip olması gerektiğinden dolayı, öğretmen öz-yeterliği ve üst bilişsel farkındalık kavramları etkili öğretim ile doğrudan ilişkili psikolojik ve bilişsel yönleri nedeniyle öğretimde ve öğretmen eğitiminde önemli yer tutmaktadır. Bu doğrultuda, bu makale, gruplar arası karşılaştırmanın olası benzerlik ve farklılıkları ve bu farklılıklara sebep olabilecek etmenleri ortaya çıkarabileceği düşüncesiyle, 97 İngilizce öğretmeni adayı ve 53 İngilizce öğretmeninin öz-yeterlik ve üst bilişsel farkındalıkları konularındaki algılarını karşılaştıran karma çalışma yöntemiyle yürütülmüş bir çalışmanın bulgularını sunmaktadır. Bu amaçla, araştırmacılar tarafından geliştirilen ve geçerlik güvenilirlik analizleri yapılan öğretmen öz-yeterlik ölçeği ve Üst Bilişsel Farkındalık Envanteri (Schraw & Dennison, 1994) katılımcılara uygulanmış ve nicel veri yarı yapılandırılmış görüşmelerden elde edilen nitel veri ile desteklenmiştir. Çalışmanın bulguları, hizmet içi İngilizce öğretmenlerinin hizmet öncesi İngilizce öğretmenlerinden daha yüksek üst bilişsel farkındalık düzeyine sahip olduğunu ortaya koymuştur, ancak iki grup arasında öğretmen öz-yeterliği bakımından önemli bir fark gözlenmemiştir. Çalışmanın nitel verisi ise bu farklılıklara sebep olan birtakım etmenler ortaya koymuştur.

Anahtar kelimeler: Öğretmen öz-yeterliği, üst-bilişsel farkındalık, İngilizce öğretmeni eğitimi

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1 | Introduction

Effective teaching is the ultimate goal of educational programs and involves qualifications for teachers proposed in the literature (e.g., Chen, Brown, Hattie, & Millward, 2012; Stronge, Tucker & Hindman, 2004). Effective language teaching, on the other hand, is defined as "clear and enthusiastic teaching that provides learners with the grammatical (syntactical and morphological), lexical, phonological, pragmatic, and sociocultural knowledge and interactive practice they need to communicate successfully in the target language" by Bell (2005, p. 260), and it is a multi-faceted process that requires language teachers to have knowledge about languages and competency and effective use of instructional strategies. This aspect is also involved in metacognitive awareness defined as one's awareness about his or her knowledge and how to apply that knowledge. Additionally, teachers' beliefs about how well or how much they could achieve teaching related tasks, which refers to teacher self-efficacy (Tschannen-Moran & Hoy, 2001) could be considered as part of effective teaching since beliefs are accepted to have upmost importance in shaping behaviors. Therefore, this study aims to focus on these two concepts in English language teacher education and teaching. Also, a comparison is made between pre-service and in-service EFL teachers so as to reveal any similarities or differences and (if any) possible factors leading them, which is neglected in the literature. Yet, any similarities or differences between the two groups in the related concepts could enhance understanding of other associated elements in language teaching and teacher education. Thus, this study focuses on exploring EFL teachers' (pre-service and in-service) self-efficacy beliefs and metacognition in light of a number of probable demographic and contextual factors.

Bandura's (e.g., 1989; 1997; 2001) *Social Cognitive Theory* stating that human actions are result of personal factors and an interaction with social environment (also called as "*Triadic Reciprocal Determinism"* (e.g., Bandura, 1997)) is the theory laying behind the concept of self-efficacy. Also playing a significant role in learning, self-efficacy is defined as a person's beliefs about his or her capabilities in achieving a task (e.g., Tschannen-Moran & Hoy, 2001). To this end, sources of efficacy beliefs could be either personal emotional states "*mastery experiences and physiological arousal*" or aspects of social interaction "*vicarious experiences* and *social persuasion*". In other words, efficacy beliefs are shaped through previous achievements (*mastery experiences)*, observing a model *(vicarious experiences)*, support and encouragement of others (*social persuasion)* or moods and feelings *(physiological arousal).* According to Bandura (1997) the most sustainable beliefs are the result of mastery experiences as they are shaped through individual long-term attempts and achievements.

Teacher self-efficacy, on the other hand, that could be defined as a teacher's beliefs about his or her capabilities to fulfil teaching related tasks (Tschannen-Moran & Hoy, 2001) has been explored in terms of sources, and so far, studies have put forward variation in the findings. In one of these studies, Tschannen-Moran and Hoy (2007) carried out a study that compared novice and experienced teachers in two states of the U.S. about the sources of their self-efficacy beliefs. The findings of this study indicated that teachers' previous experiences (mastery experiences) and support (social persuasion) were the main sources for novice teachers while these sources were not equally important for the experienced teachers in the study. In a similar vein, Clark and Newberry (2019) explored sources of self-efficacy beliefs of 783 pre-service teachers in the U.S.A. The data of the study that were collected through a quasi-experimental study design revealed that all sources; *"mastery experience*, *vicarious experience*, *social persuasion and physiological arousal"* were effective in the participants' perceived levels of teacher self-efficacy beliefs. As a suggestion, the researchers indicated that other contextual factors are to be looked into.

Various contextual factors such as school setting (e.g., Ma & Cavanagh, 2018) have commonly been associated with levels of teacher self-efficacy and asserted to have either positive or negative impact on teacher self-efficacy (e.g., Chen & Yeung, 2015; Knoblauch & Chase, 2015; Tschannen-Moran & Johnson, 2011). To this end, the findings of Caprara, Barbaranelli, Steca and Malone's (2006) study the aim of which was to explore any probable relationship among the concepts of self-efficacy, job satisfaction and student achievement and which was conducted with more than 2000 in-service teachers revealed that there was

a statistically significant relationship among these elements commenting on that any increase or decrease in the levels of self-efficacy beliefs affected job satisfaction and student achievement in turn. Similarly, in a quantitative study carried out with 2249 Norwegian teachers on the relationship between teacher-self-efficacy and job satisfaction or burn-out, Skaalvik and Skaalvik (2010) revealed that there was no positive connection among the factors, which was contrary to the study of Caprara et al. (2006). Additionally, despite being limited, research on teacher self-efficacy and contextual factors in ELT has put forward that undergraduate education, practicum and language proficiency have a positive impact on pre-service EFL teachers' self-efficacy beliefs (Sevimel & Subaşı, 2018). On the other hand, a mismatch between the content of the courses during undergraduate education and real classroom conditions has been suggested to have a negative impact on pre-service teachers' perceptions (e.g., Seferoğlu, 2006).

Demographic factors of gender, years of experience and academic achievement have also been regarded as possibly effective factors on the levels of teacher self-efficacy (e.g., Alcı & Yüksel, 2012; Merç, 2015; Klassen & Chiu, 2010; Sarıçam & Sakız, 2014). Yet, existing research has set forth opposing findings on the function of demographic factors especially the function of gender and experience. While gender has emerged to have either no effect (e.g., Merç, 2015) or significant effect also connected to concepts of burn-out and stress (e.g., Klassen & Chiu, 2010), academic achievement has been reported to be a significant determinant of pre-service teachers' self-efficacy beliefs (e.g., Külekçi, 2011).

A comparison between self-efficacy beliefs of pre-service and in-service teachers has been one of the focuses in teacher self-efficacy research (e.g., Azar, 2010; Campbell, 1996; Dolgun & Caner, 2019). These studies have set forth different findings and highlighted the effect of contextual factors in the differences. For instance, Azar (2010) conducted a study on pre-service and in-service secondary science teachers' self-efficacy, and the findings suggested that there was no significant difference between the two groups. On the other hand, the study of Campbell (1996) revealed that there was a difference between these two groups as pre-service teachers had higher levels of self-efficacy. In English language teaching research, Dolgun and Caner (2019) found no difference between pre-service and in-service teachers in the study, but they suggested factors influencing language teachers' self-efficacy beliefs.

Metacognitive awareness (or metacognition) that is defined as a person's higher order skills about their knowledge and how to apply that knowledge is a concept that could be associated with teacher self-efficacy, which is the other focus of the current study. In the literature, metacognition is categorized as *metacognitive knowledge*; *declarative* (knowledge of what), *procedural* (knowledge of how) and *why* (knowledge of conditional) and *metacognitive regulation*; cognitive activities to organize knowledge such as planning, monitoring comprehension (eg., Schraw & Dennison, 1994). On the other hand, teachers' metacognitive awareness involves skills such as "*preparing and planning for learning*, *selecting and using learning strategies*, *monitoring strategy use*, *orchestrating various strategies* and *evaluating strategy use and learning"* (Anderson, 2002, p. 3). Furthermore, "*promoting content learning*, *identifying appropriate strategies*, *making moment-to-moment decisions to ensure students' learning* and *adjusting for individual differences"* (Duffy, Miller, Parsons & Meloth, 2009, p. 3) are other proposed skills included in teachers' metacognitive awareness and these skills are particularly important in the new era due to emphasis on 21st century skills such as critical thinking.

Metacognitive awareness has been addressed in teacher education and teaching research (e.g., Baylor, 2002; Bulut, 2018; Metallidou, 2009; Wilson & Bai, 2010) in consideration of abovementioned importance of it. In one of those studies, Şendurur, Şendurur, Mutlu and Başer (2011) explored metacognitive awareness of pre-service teachers considering demographic factors of gender, educational background and academic achievement that was addressed with GPA scores of the participants. Data collected quantitatively were analyzed, and it emerged that all demographic factors in the study were effective in the difference among the groups. With that regard, female pre-service teachers in the study had higher GPA scores and metacognitive awareness levels than male pre-service teachers, which suggested that gender was an effective factor for the group differences in the levels of metacognitive awareness and GPA

scores. Moreover, it was reported that educational background addressed through type of high school which the participants graduated from in the study was effective in the difference.

As to language teacher education and teaching research, research has focused on general aspects of language teachers' metacognition and the concepts related to it (e.g., Nahrkhalaji, 2014; Öz, 2015; 2016; Sarıçoban, 2015). For instance, Nahrkhalaji (2014) investigated possible influence of metacognitive awareness on EFL teachers' (N=50) teaching performance and whether demographic factors of gender, educational background and teaching experience were effective in the levels of metacognitive awareness of the participants. To this end, it was found out that educational background and teaching experience were effective in the difference between the groups. However, there have been studies revealing no significant effect of background factors on metacognition of pre-service EFL teachers (e.g., Öz, 2016; Sarıçoban, 2015).

Overall, although studies have addressed both pre-service and in-service teachers' self-efficacy and metacognitive awareness separately, the research concern is that they have either been conducted in other fields of teaching than language teaching or concerned beginning teachers, which has also been suggested in the literature (eg., Atay, 2007; Koçoğlu; 2011). Additionally, through a review of literature, it is easy to detect that there is lack of research on both pre-service and in-service EFL teachers' self-efficacy beliefs in Turkey. Specifically, no study in Turkey has compared pre-service and in-service EFL teachers' efficacy beliefs and metacognition. However, any similarities or differences to be revealed as a result of comparison between the two groups could enhance understanding of related concepts in English language teacher education and teaching. Therefore, the current study aims to address the following research questions:

1. What is the extent of EFL teachers' (pre-service and in-service) perceived self-efficacy and metacognitive awareness?

2. Are there any similarities/differences in the levels of self-efficacy and metacognitive awareness between pre-service and in-service English language teachers? If so;

a) Are there any factors effective in the similarities/differences between the two groups?

2 | Method

Population and Sample

In light of these research questions, one of the state universities in Turkey was determined as the setting of the study. As the focus of the current research was to address both pre-service and in-service English language teachers, the setting was determined as two faculties/schools of that university. That is, while the setting for pre-service teachers was Faculty of Education, English language teaching (ELT) department of the university, data related to in-service teachers were collected at the School of Foreign Languages of the university. As to eligibility of that university, it admits students among top achievers of university entrance exam in Turkey, which could enable to analyze especially metacognitive awareness of pre-service ELT teachers. Therefore, School of Foreign Languages of the university was determined as the convenient setting for in-service teachers.

The participants were 96 senior students at ELT department of the university and 53 English lecturers working at the School of Foreign Languages. Since one of the focuses of the study is to investigate whether demographic factors have an impact on teacher self-efficacy or metacognitive awareness, the participants were selected among volunteers by considering this focus and they filled out an informed consent form informing about the processes involved in the study. Table 1 and 2 demonstrate demographic aspects of the participants.

Table 1. The Group of Pre-service EFL Teachers

Gender (M=1.21 SD=.41)		Age (M=1.09, SD= .38)			GPA (M=3.08, SD= .65)		
Female	Male	20-26	27-35	45+	1.5-2.99	3.00-3.50	+3.50
75	21	89	6	1	17	54	25

Table 2. The Group of In-service EFL Teachers

Gender (M=1.11, SD=.31)		Years of experience (M=2.81, SD=.78)			
Female	Male	0-5	6-10	11-20	20 +
47	6	2	16	25	10

Research Design

The current study was designed as a mixed-method study. In this respect, quantitative data were collected through Likert type scales on the variables of the study. In order to support the quantitative data, the qualitative data were collected through semi-structured interviews. The collected data were analyzed through tests of quantitative and qualitative research methods.

Data Collection

The quantitative data on teacher self-efficacy were collected from pre-service EFL teachers through a scale that was developed and validated by the researchers referring to a number of resources such as the EAQUALS framework for language teacher training and development (2013) and adapted for in-service teachers. All phases of scale development related to validity and reliability were considered during the study. To this end, referring the sources aforementioned, 52 items addressing the categories of *planning*, *teaching*, *assessment* and *professional development* were selected from the item pool, and 12 items were removed by considering the expert judges' feedback. Moreover, one item was removed just before administering the construct as it was found to be confusing. The finalized version of the construct was administered to a group of 200 pre-service EFL teachers who were not involved in the target sample for pilot-study, and factor analyses were conducted on the collected data. As a result of these analyses, a one-factor construct with 23 items emerged, so it was administered to the same group (*N*=187) for test-retest analyses.

The developed scale (PLTES) included *planning*, *teaching*, *assessment and professional development* areas in 9-Likert scale type 23 items, and validation and reliability analyses revealed that the scale is valid and reliable (α= .93). Furthermore, *Metacognitive Awareness Inventory* (Schraw & Dennison, 1994) was the instrument employed to address metacognitive awareness of the participants following obtaining permission of the developers to use it in the study. The scale that involves 52 items on "*metacognitive knowledge (declarative, procedural and conditional)"* and "*regulation of metacognition (information management strategies, comprehension monitoring, debugging strategies and evaluation)"* has been commonly used, valid and reliable scale in the related literature (e.g., Akın, Abacı & Çetin, 2007; Harrison, & Vallin, 2018; Hughes, 2019). While there is variation in the response types for the items (eg., Yes/No responses or Likert-scale), 7 Likert-scale version was used in this study. Finally, semi-structured interviews in which there were questions on the participants' ideas about their self-efficacy beliefs (strength and areas for further development), metacognitive awareness in learning and teaching (how to transfer that knowledge into teaching) and factors considered as effective in the levels of self-efficacy and metacognitive awareness were conducted to collect qualitative data.

Data Analysis

Data were analyzed by using SPSS version 23 for quantitative data and NVivo 12 Pro for qualitative data. Accordingly, statistical analyses of descriptive statistics, normality tests, Independent-Samples T-test and Mann Whitney U test; One-Way ANOVA and Kruskal Wallis H test were conducted in order to analyze data for research purposes. Furthermore, qualitative data that were collected from semi-structured interviews were coded in light of the themes in the interview questions for content analyses and analyzed to provide in-depth support for quantitative data. For inter-reliability, coding and content analysis were conducted by another researcher in the field, and the analyses were compared to finalize.

Research ethics

Ethical concerns were handled before conducting the research and required permission to conduct the study was obtained from Ethics Committee of a state university in Turkey (dated March 1st, 2018 and numbered 35853172/433-938). Also, department heads of the settings in question were informed about the study and the processes involved, thus, they were requested permission to carry out the study in their departments. The principle for recruiting participants into study was on a voluntary base. Therefore, the participants were informed about the study and that no personal information was to be used and their consent to participate was documented through a consent form.

3 | Findings

Self-efficacy and Metacognitive Awareness of EFL Teachers

In order to explore self-efficacy beliefs and metacognition of EFL teachers, the scales were administered to the participants, and the data were analyzed quantitatively though descriptive statistics. See Table 3 for pre-service EFL teachers' perceived self-efficacy.

Table 3. Self-efficacy of Pre-service EFL Teachers

Components of teacher self-efficacy	M	SD
Planning	7.08	1.19
Teaching	6.63	1.08
Assessment	6.74	1.10
Professional development	6.78	1.26

As illustrated in the table, pre-service EFL teachers had higher levels of perceived self-efficacy for the component of planning. Furthermore, data on metacognitive awareness revealed that they were aware of knowledge and regulation components of metacognitive awareness when considering nearly equal mean values except for component of evaluation. See Table 4 for pre-service EFL teachers' metacognition.

Table 4. Metacognitive Awareness of Pre-service EFL Teachers

	M	SD
Declarative	5.35	.92
Procedural	5.2	1.08
Conditional	5.35	.99
Planning	5.21	.99
Information management	5.32	1.08
Monitoring	5.13	.86
Debugging	5.72	.98
Evaluation	4.81	1.1
Metacognitive knowledge	5.32	.9
Regulation of cognition	5.23	.91

On self-efficacy beliefs of in-service English language teachers, the findings indicated that they also had higher values for planning component of the scale, which is demonstrated in Table 5.

Table 5. Self-efficacy of In-service EFL Teachers

Components of teacher self-efficacy	M	SD
Planning	7	1.26
Teaching	6.94	1.33
Assessment	6.71	1.30
Professional development	6.11	1.87

As to their metacognitive awareness, the results suggested that mean values of the components were nearly equal indicating that they were both aware of their knowledge and how to apply that knowledge. See Table 6 for descriptive statistics of in-service EFL teachers' metacognitive awareness.

Table 6. Metacognitive Awareness of In-service EFL Teachers

	M	SD
Declarative	5.68	.77
Procedural	5.47	.83
Conditional	5.59	.71
Planning	5.47	.80
Information management	5.75	.68
Comprehension monitoring	5.31	.87
Debugging strategies	5.95	.72
Evaluation	5.28	.97
Metacognitive knowledge	5.60	.71
Regulation of cognition	5.56	.67

Differences in Self-efficacy and Metacognitive Awareness of English Language Teachers

In addition to data collected from pre-service and in-service English language teachers on their teacher self-efficacy and metacognition, a comparison was made between the two groups for in-depth analyses to enhance understanding of related concepts. For this purpose, quantitative data were analyzed statistically following normality tests. The output of Kolmogorov Smirnov test revealed that variables had significant values, thus, did not have normal distribution (*teacher self-efficacy*; Skewness of -.71 (*SE*=.19) and Kurtosis of -.19 (*SE*=.39) and *metacognition;* Skewness of -.40 (*SE*=.19) and Kurtosis of .12 (*SE*=.39) ($p < .05$). Thus, nonparametric Mann Whitney U tests were conducted for comparison of the two groups and the analyses suggested that while there was no statistically significant difference between pre-service (*Mdn*=6.91) and in-service (*Mdn*=6.95) EFL teachers in their self-efficacy beliefs (*U*=1450, *p*=.70), there was a relatively significant difference between the two groups (pre-service; *Mdn*=5.25 and in-service; *Mdn*=5.71) in their metacognitive awareness (*U*=1965, *p*=.02, *d*=.3)

Factors Effective in Self-efficacy and Metacognitive Awareness of English Language Teachers

That the findings revealed a significant difference in metacognitive awareness of pre-service and in-service EFL teachers made it necessary for further research into the factors possibly effective in the stated difference. Accordingly, *gender* and *academic achievement* were associated with self-efficacy and metacognitive awareness of pre-service teachers whereas *gender* and *years of experience* were investigated in relation to in-service teachers. Furthermore, qualitative data set forth other associated factors.

Being normally distributed (teacher self-efficacy; Skewness of -.58 (*SD*=.24) and Kurtosis of .17 (*SD*=.48) and *metacognition;* Skewness of -.17 (*SD*=.24) and Kurtosis of -.09 (*SD*=.48) (p=2), the data collected from pre-service were analyzed statistically by conducting parametric tests of Independent Samples t-test (Student-t) (for gender) and One-way ANOVA (for achievement groups). The output of Student t-test revealed that there was no significant difference between male (*M*=6.99, *SD*=.89) and female (*M*=6.7, *SD*=1.08) teachers in their self-efficacy beliefs (*t*(94)= 1.1, p>.05) and metacognition (female; *M*=5.26, *SD*=.91 and male; *M*=5.27, *SD*=.80, *t*(94)= .05, *p*>.05). As to academic achievement, the output of Bonferroni post-hoc tests of One-way ANOVA stated that academic achievement was effective both in teacher self-efficacy (*F* (2, 93) = 4. 97, *p*=.009, η_p^2=.097) and metacognitive awareness (*F* (2, 93) = 4.22, *p*=.017, η_p^2=.083) and the group who had highest GPA scores (above 3.5) also had higher levels of teacher self-efficacy and metacognitive awareness.

Gender and years of experience were examined as factors that could possibly cause a difference among the groups. To this end, nonparametric tests of Mann Whitney U test (for gender) and Kruskall Wallis H test (for experience) were conducted as the data had significant values (*teacher self-efficacy*; Skewness of -.79 (*SE*=.32) and Kurtosis of -.02 (*SE*=.64) and *metacognition;* Skewness of -.79 (*SE*=.32) and Kurtosis of (*SE*=.64). The output of Mann Whitney U test revealed that there was no statistically significant difference between female (*Mdn*= 6.95) and male (*Mdn*= 6.91) teachers in the levels of teacher self-efficacy (*U*= 140.5, *p*=.98, *d*=.0) and metacognitive awareness (female; *Mdn*=5.71 and male; *Mdn*= 5.53, *U*=125.5, *p*=.66, *d*=.0). As to *years of experience*, the analyses conducted through Kruskal Wallis H test pinpointed no significant difference among the groups in their self-efficacy (*H*(3)=4.95, *p*=.17; mean ranks of 7 for 0-5 years group, 26.9 for 6-10 years group, 26.2 for 11-20 years group and 33 for more than 20 years group) and metacognitive awareness (*H*(3)= 1.91, *p*=.59; mean ranks of 34.5 for 0-5 years group, 25.1 for 6-10 years group, 25.6 for 11-20 years group and 31.9 for more than 20 years group).

In addition to demographic factors, analyses of qualitative data revealed a number of associated factors with self-efficacy beliefs and metacognitive awareness. To this end, undergraduate education, practicum (in a positive manner) and discrepancy between theoretical courses in teacher education and real classroom setting (in a negative manner) were commonly stated factors by pre-service teachers while high or low

level of learner motivation, workload and lack of support by the administration were regarded as related factors to self-efficacy beliefs and metacognition of in-service language teachers. See extracts below:

PT5-male/ GPA; 1.5-2.99: *"I feel efficacious particularly about lesson planning thanks to high standard education we got at this university. I think I got trained even more than enough because we prepared too many lessons plans and were supervised too much. Therefore, I do not think that I will have any problems about lesson planning."*

PT3-female/ GPA; 1.5-2.99: *"I believe I definitely need to improve my abilities about classroom management because even during practicum, there used to be an experienced teacher with us (either the teacher at that school or our supervisor) and they would always lead us. I have no experience teaching children and managing class on my own. Although I know what is necessary to do for classroom management in theory, I do not think that I will be able to manage it well in practice. I mean I am not efficacious enough about that."*

Interviews also included data about pre-service and in-service English teachers' metacognitive awareness. To this end, qualitative data revealed whether the participants could transfer their metacognitive awareness in their teaching practices. Accordingly, while some of the participants responded positively, others expressed factors affecting them for transferring their metacognitive awareness. See the extract below as evidence.

T7-female/ completed degree; MA/11-20 years of teaching: "*Visualizing is important for me or leading from familiar to unfamiliar, most frequent to least frequent, these are cognitive skills that I use the most and I use them in my teaching, too. You know there is famous saying: the way you learn become the way you teach, so I think I can transfer my knowledge and cognitive skills in my teaching in different pace of a lesson.*"

T11-female/ completed degree; MA/11-20 years of experience: "*I think technological improvements affect a teacher's self-efficacy. Well, actually, I would say learner motivation. I know it is a cliché, but it is definitely the case for us. We wonder why we could not motivate them. Maybe, it is because of us or our techniques and practices are not appealing to them. Overall, they affect a teacher's efficacy either positively or negatively.* "

Overall, this study revealed that there was no significant difference between pre-service and in-service English language teachers in their efficacy beliefs and metacognition regardless of demographic factors. Still, there were contextual factors influencing especially the levels of their self-efficacy mainly undergraduate education and practicum for pre-service English language teachers and such as student motivation for in-service teachers.

4 | Discussion & Conclusion

The current study investigates efficacy beliefs and metacognition of EFL teachers (pre-service and in-service) in consideration to any differences or similarities between the two groups in the aforementioned variables and any factors effective in these variables. Thus, the data collected from the participants through scales on the variables and semi-structured interviews were analyzed quantitatively and qualitatively, and the findings suggested that there were no significant differences between the two groups in their efficacy beliefs and metacognitive awareness.

In existing research, there is no research on the comparison between pre-service and in-service EFL teachers' efficacy beliefs and metacognition. On the other hand, the studies focused on the two variables separately in other fields of teaching had converse findings (eg., Azar, 2010; Campbell, 1996). To this end, while Azar's (2010) study that was performed with secondary science teachers (pre-service and in-service) on their self-efficacy beliefs revealed no difference between two groups. However, in a previous study,

Campbell (1996) suggested that in-service science teachers seemed to have higher levels of self-efficacy than the pre-service group in the study. Similarly, metacognitive awareness of the two groups was compared in other fields of teaching. For instance, Metallidou (2009) investigated how problem-solving strategies were used by primary school teachers (pre-service and in-service), and the researcher found out that the group of in-service teachers could use strategies better than the group of pre-service primary school teachers, which could partly be associated with the finding of the current study which stated that in-service EFL teachers in the study had higher scores for their metacognition than pre-service teachers. This study could be considered as significant since it contributes to the literature by providing insight into EFL teachers' efficacy beliefs and metacognition and also revealing a difference between the groups, which has been neglected so far or investigated separately.

Examined to reveal any possible factors influencing prospective and experienced English language teachers' self-efficacy and metacognitive awareness, the data suggested a number of demographic or contextual factors that could be associated with the ones in the existing research either in a supporting or contradictory way. To start with, that the study revealed no effect of gender on teacher self-efficacy supports the findings of Merç's (2015) study that explored whether there was any relationship between self-efficacy beliefs and speaking anxiety of pre-service ELT teachers with respect to demographic function of gender and school setting. With regard to function of gender on metacognitive awareness, the study of Şendurur et al. (2011) revealed that gender, GPA scores and educational background of pre-service teachers were effective in their metacognitive awareness. However, while the findings of the current study on GPA scores support this study, the finding related to gender is not in line with it as no effect was traced regarding to gender, as also revealed in previous studies (e.g., Öz, 2015; 2016; Sarıçoban, 2015)

As to the findings related to connection between experience and teacher self-efficacy, the present study revealed no effect of it on teacher self-efficacy, which is not in line with the study of Chen and Yeung (2015) which suggested that experience causes a difference in the levels of teacher self-efficacy. Likewise, the findings of this study on the connection between metacognitive awareness and demographic factors of experience and educational background are not in line with existing research. For instance, Nahrkhalaji (2014) revealed that educational background and teaching experience played a role in metacognitive awareness of EFL teachers, which could not be supported by this study since there was no difference among groups of experience in their metacognition.

Among contextual factors having an impact on the participants' efficacy and metacognition, undergraduate education and practicum emerged to be positively effective in pre-service teachers' self-efficacy while student motivation was stated to be the most common factor influencing their efficacy beliefs by in-service teachers. Additionally, pre-service teachers stated that there was a mismatch between theoretical background that was presented to them and real teaching practices. In the literature, teacher self-efficacy has been considered as related to various concepts such as burn-out or stress for in-service teachers and contextual factors for pre-service teachers. Specifically, in ELT research, Sevimel and Subaşı (2018) examined associated factors with teacher self-efficacy by conducting a study with 113 pre-service teachers and found out that undergraduate education and teaching practice through practicum were considered to have a positive effect on the participants' self-efficacy. Yet, the participants stated that the content of the courses they took during their undergraduate education was not in line with real classroom contexts as it was so theoretical. Therefore, the finding of this study supports the study of Sevimel and Subaşı (2018) and findings of previous research (e.g., Atay, 2007; Koçoğlu, 2011; Seferoğlu, 2006) for mismatch between the amount and content of theoretical courses and real teaching practice.

As to in-service teachers, the literature mostly has connected teacher self-efficacy with contextual factors such as school setting (eg., Chen & Yeung, 2015; Knoblauch & Chase, 2015; Ma & Cavanagh, 2018), which is in accordance with the finding of this study as in-service teachers in the current study expressed that student motivation, workload and lack of support by the administration are among the factors influencing their self-efficacy. They considered the same factors as inhibiting for reflecting their metacognitive awareness into teaching practices. These findings are in line with the study of Chen and

Yeung (2015), who investigated self-efficacy beliefs of graduates of a language teacher education programs and found out that "teacher factors (language proficiency and teaching experience)", "student factors (student motivation and classroom management)" and "contextual factors (culture, class size and school district)" had an impact on teacher self-efficacy.

To conclude, this study presented that despite being small, differences were revealed between pre-service and in-service EFL teachers' efficacy beliefs and metacognition. Highlighted findings were in-service teachers' lower level of self-efficacy for professional development and pre-service teachers' lower level of metacognitive awareness for evaluating completed work or task. Considering the findings related to in-service teachers indicating that their efficacy about professional development was lower than planning or teaching and they could not focus on their development because of contextual factors such as heavy workload or lack of support by the institution, it could be suggested that professional development of teachers be encouraged by the support of educational systems and be involved in institutional policies in accordance. As to the findings related to pre-service teachers' lower level of metacognitive awareness for the sub-scale of evaluation, the suggestion is that there could be revision in the content of the programs. Pre-service teachers could be presented with more practical content in which they analytically think over situations and teaching practices. Thus, they could also reflect their metacognition into teaching. As a result, there would be no conflict between teacher education with highly motivated, efficacious and metacognitively aware candidates and teaching profession with language teachers who are in pursue of continuous professional development and it would result in effective language teaching. As to further research, the suggestion of this study could be that more studies comparing pre-service and in-service EFL teachers' self-efficacy beliefs and metacognitive awareness are especially necessary in order to shed light on differences between the two groups and possible factors effective in them as they may help improve conditions for language teaching and teacher education programs.

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STATEMENTS OF PUBLICATION ETHICS

The authors declare that this study has no unethical problem in consideration of research and publication ethics. In this sense, ethical issues were handled meticulously in that no plagiarism was attempted, and all the resources used were listed appropriately in the references.

RESEARCHERS' CONTRIBUTION RATE

This study was produced from the first author's Ph.D. Dissertation. Thus, the first author was primarily responsible for each and every phase of the study. The second author, the supervisor of the dissertation, contributed on the construct of the study by giving continuous constructive feedback.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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