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Examining The Relation Between Secondary School Teachers' Beliefs About Their Own Learning and Their Instructional Practices

Ortaokul Öğretmenlerinin Kendi Öğrenmelerine Yönelik İnançları ve Sınıf - İçi Uygulamaları Arasındaki İlişkinin İncelenmesi

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ÖZ: Bu olgubilim çalışmasının amacı, ortaokul öğretmenlerinin kendi öğrenmeleri hakkındaki inançları ile öğretim uygulamaları arasındaki ilişkiyi incelemektir. Veriler, amaçlı örnekleme ile seçilen 50 ortaokul öğretmeni ile yapılan yarı yapılandırılmış görüşmeler aracılığıyla toplanmıştır. Araştırma sonuçlarına göre, öğretmenler iki gruba ayrılmıştır: İlk grup (n= 33), kendi öğrenmeleri konusundaki inançlarına göre derslerini yürütmektedir, bunlardan 26 öğretmen öğrenen merkezli faaliyetler uygularken, 7 öğretmen, öğretmen merkezli uygulamalar işe koşmaktadır. İkinci grup öğretmen (n=17) kendi öğrenmeleri konusundaki inançları ve öğretim uygulamaları arasında bir uyumsuzluk sergilemiştir. Bu öğretmenlerden 5'inin öğretmen merkezli inançlara sahip olduğu, ancak öğretim programına dayalı beklentiler nedeniyle öğrenen merkezli öğretim uygulamalarının olduğu; 12 öğretmenin ise öğrenci merkezli yaklaşımlara uygun inançlarının olduğu ancak uygulamalarının, kalabalık sınıf mevcutları, motivasyon eksikliği, öğrencinin ilgisizliği veya motivasyon eksikliği, program yoğunluğu, sınırlı öğretim materyalleri, çoktan seçmeli sınavlar ve pedagojik alan bilgisi eksikliği gibi nedenler ile programa uygun olmadığı sonuçları ortaya çıkmıştır. Sonuçlar, öğretmenlerin öğrenen merkezli yaklaşımları uygulamalarına engel olan unsurlar ve bununla ilişkili olarak programa bağlılıkları hakkında değerli bilgiler sunmaktadır. Ayrıca, araştırma, öğretmenlerin öğrenen merkezli inançlar ve uygulamalar geliştirmeleri için fırsatlar sağlamak amacıyla öğretmen eğitimi programlarına ve hizmet-içi eğitim programlarına yeni bir yol önermeye yönelik potansiyele sahiptir.

Anahtar sözcükler: Öğretim uygulamaları, öğretmen inancı ve öğretmen uygulamaları, öğretmen eğitimi, olgubilim çalışması.

ABSTRACT: The aim of this phenomenological study is to examine the relation between secondary school teachers' beliefs about their own learning and their instructional practices. Data were collected through semi-structured interviews conducted with 50 secondary school teachers recruited through purposeful sampling. The teachers fell into two groups: The first group (n=33) was found to teach in line with their beliefs about their own learning, with 26 teachers demonstrating learner-centered and 7 teachers demonstrating teacher-centered practices. The second group (n=17) exhibited a misfit between their beliefs and instructional practices. Five of these teachers were found to have teacher-centered beliefs about their own learning but learner-centered practices, possibly due to curriculum-based expectations, while 12 teachers were found to hold learner-centered beliefs about their own learning but teacher-centered instructional practices, which was found to result from large class size, lack of teacher motivation, lack of student interest and motivation, overloaded curricula, limited instructional materials, high-stakes exams, and lack of pedagogical content knowledge. The results offer valuable insights into the teachers' stated barriers in applying learner-centered approaches and hereof their fidelity to curriculum. In addition, the research has also potential to suggest a new direction to teacher education programs and in-service teacher education programs in providing well-structured opportunities for teachers to develop learner-centered beliefs and instructional practices.

Keywords: Instructional practices, phenomenological study, teacher beliefs, teachers' beliefs and practices, teacher education.

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GENİŞ TÜRKÇE ÖZET

Giriş

Son zamanlarda öğrenen merkezli eğitim reformları tüm dünyadaki eğitim sistemlerini etkilemiş, öğretmen inançlarının ve öğretim uygulamalarının nasıl farklılıklar gösterebileceği konusunda araştırma ilgisinin artmasına neden olmuştur (örneğin, Lim, Tondeur, Nastiti ve Pagram, 2014; Mason ve Payant, 2018). Öğretmen değişimi üzerine mevcut araştırmalar, etkili hizmet-içi eğitim uygulamalarının, öğretmenlerin sınıfta öğrenen merkezli uygulamaları benimsemelerine yardımcı olarak fark yaratabileceğini ve öğretmenlerde kavramsal değişikliğe yol açtığını göstermektedir (örneğin, Şahin ve Yıldırım, 2015; Tallerico 2005; Wei, Darling- Hammond, Andree, Richardson ve Orphanos 2009). Borg (2003) tarafından önerildiği gibi, öğretmenler "bağlama duyarlı bilgi, düşünce ve inanç ağları" ile aktif karar vericilerdir (s. 1). İnançlar güçlüdür (Nespor, 1987) ve değişmesi güçtür (Block & Hazelip, 1995; Farrell, 1999). Bu nedenle, öğretmenlerin inançları, öğrenme ve öğretme süreçlerini de etkilediği için, istenen mesleki gelişim uygulamalarını oluştururken dikkate alınmalıdır (Kagan, 1992; Pajares, 1992; Wilson ve Cooney, 2003).

Öğretmenlerin kendi öğrenmeleri konusundaki inançlarının kendi sınıf uygulamalarını nasıl etkilediğine dair sistematik bir anlayış geliştirilmesine ihtiyaç vardır. Öğrenen merkezli yaklaşımların kullanım derecesi, okul seviyesine bağlı olarak değişebilir. Tomasello, Kruger ve Ratner (1993), sunum yoluyla öğrenmenin ilköğretim düzeyinde küçük yaşta öğrenciler için etkili olabildiğini önermektedir. Ancak, ortaöğretim düzeyinde, öğrenci temelli yaklaşımlara uyumlu şekilde (Baines, Blatcford ve Kutnick, 2003; Brown, 2003), iyi tasarlanmış ve rehberlik edilen etkileşimli grup çalışmalarının (Kirschner, Sweller ve Clark, 2006; Zayapragassarazan ve Kumar, 2012), daha iyi öğretme ve öğrenme ortamı sağlamak adına önemli olduğunu ortaya koymaktadır. Bu durum ayrıca, öğretmenlerin ortaöğretim düzeyinde kendi öğrenme ve öğretim uygulamaları ile ilgili inançları arasındaki bağlantıyı araştırmanın daha fazla gerekli olduğunu göstermektedir. Bu çalışma, ortaokul öğretmenlerinin kendi öğrenmeleri hakkındaki inançlarını ortaya çıkarmak ve öğretmenlerin kendi öğrenmeleri hakkındaki inançları ve sınıf uygulamaları arasındaki ilişkiyi yakalamak için yapılmıştır. Bu amaçla, öğretmenlerin kendi öğrenmeleri ile ilgili inançları ve uygulamaları arasındaki farkı doğuran etmenler de incelenmiştir.

Yöntem

Nitel araştırma yöntemlerine dayalı bu çalışmada, olgubilim deseni kullanılmıştır. Katılımcıların seçiminde, cinsiyet, branş ve öğretmenlik deneyimi temelinde maksimum çeşitlilik örneklemesi kullanılmıştır. Görüşmeler, veri doygunluğuna ulaşana kadar devam etmiştir. Çalışmaya 12 farklı alandan (bilgisayar eğitimi, biyoloji, fizik, matematik, teknoloji tasarımı, İngiliz dili, Almanca, tarih, Türk dili ve okuryazarlığı, psikoloji, felsefe, coğrafya) 50 ortaokul öğretmeni (19 erkek; 31 kadın) katılmıştır. Katılımcıların yaşları 21 ile 57 arasında, öğretmenlik deneyimleri ise 1 ile 31 yıl arasında değişkenlik göstermektedir.

Veri toplama aracı araştırmacılar tarafından geliştirilmiş yarı-yapılandırılmış görüşme formudur. İlk bölüm demografik soruları (ör. öğretmenlerin cinsiyeti, yaşı, alanı ve iş tecrübesi) içermektedir. İkinci bölüm, öğretmenlerin şu anda çalıştığı okullar (örneğin, sosyo-ekonomik durum, ebeveyn desteği düzeyi), öğretmenlerin öğretim uygulamaları ve öğretmenlerin kendi öğrenmeleri hakkındaki inançlarından oluşan sorulardan oluşmaktadır. Uzman görüşleri ve ilgili etik izinlerin alınmasının ardından görüşmeler, katılımcıların okullarında 2016-2017 bahar döneminde yürütülmüştür. Görüşmeler yaklaşık 20-30 dakika sürmüştür. Veri analizi NVivo 11 programı aracılığıyla yürütülmüştür.

Sonuç ve Tartışma

Bu çalışmada, öğretmenlerin kendi öğrenmelerine yönelik inançlarını, oluşturmacı yaklaşımı temel alan merkezi bir eğitim sisteminde sınıf içi uygulamalarına nasıl ve ne derece aktardıkları irdelenmiştir. Öğretmenlerin kendi öğrenmelerine yönelik inançları ve sınıf uygulamaları arasındaki

ilişki incelendiğinde, öğretmenlerin iki gruba ayrıldığı görülmektedir. Çoğunluk olan birinci grubun (n=33) sınıf içi uygulamalarını kendi öğrenmelerine yönelik inançları ile uyumlu olarak yürüttükleri görülürken, ikinci grubun (n=17) kendi öğrenmelerine yönelik inançları ve sınıf uygulamaları arasında bir uyumsuzluk olduğu görülmektedir. Bu noktada, daha önce Kagan (1992) tarafından, öğretmen inançlarının eşitliği veya uygunluğu hakkında gündeme getirilen soru dikkat çekmektedir. Eğer öğretmenlerden kendi öğrenmelerine yönelik inançlarını sınıf uygulamalarına aktarmaları bekleniyorsa, aktarılması *istenen* inançların tanımlanması gerekmektedir. İlgili alanyazı, öğrenen-odaklı yaklaşımların, geleneksel yaklaşımla kıyaslandığında, sürdürülebilir bilgi ve beceri açısından *istenen* öğrenci çıktıları ile daha fazla ilintili olduğunu ortaya koymaktadır (örn. Brown, 2003; Roehl, Ready & Shannon, 2013). Bununla bağlantılı olarak, yapılandırmacılık odaklı eğitim reformları, sınıf uygulamalarında öğrenen-odaklı yaklaşımların işe koşulmasını öngörmektedir. Bu da öğrenen odaklı yaklaşımların *istenen* uygulama olarak tanımlanmasını sağlamaktadır.

Bu kapsamda değerlendirildiğinde, araştırma sonuçları, kendi öğrenmelerine yönelik inançları ve sınıf uygulamaları arasında uyum olduğunu belirten 33 öğretmenden 26'sının öğrenen merkezli inanç ve uygulamalara sahip olduğunu ortaya koyarken, 7 öğretmenin öğretemem merkezli inanç ve uygulamaya sahip olduğunu göstermektedir. Benzer olarak, kendi öğrenmelerine yönelik inançları ve sınıf uygulamaları arasında uyum olmadığını belirten 17 öğretmenden 12'si, öğrenen-odaklı yaklaşımlarla daha iyi öğreneceklerini düşünürken, sınıf içi uygulamalarında öğretmen odaklı yaklaşımları tercih etmektedirler. Diğer 5 öğretmen ise öğretmen odaklı yaklaşımlarla daha iyi öğreneceklerini düşünürken sınıf içi uygulamalarında *istenen*, yani öğrenen-odaklı yaklaşımları işe koşmakta olduklarını belirtmişlerdir. Bunun da program odaklı beklentilerden kaynaklanıyor olabileceği düşünülmektedir.

Genel olarak öğretmenlerin kendi uygulamalarına yönelik inançları ve uygulamaları arasındaki uyum dikkate alındığında, 19 öğretmenin program odaklı beklentilere rağmen sınıf içinde geleneksel yaklaşımları işe koştuklarını görülmektedir. 12 öğretmenin ise öğrenen-odaklı yaklaşımlarla daha iyi öğreneceklerini düşünürken, sınıf içi uygulamalarında öğretmen odaklı yaklaşımları tercih ettikleri gözlenmektedir. Araştırma sonuçları, bunun temel nedenleri arasında kalabalık sınıf mevcudu, motivasyon eksikliği, öğrencinin ilgisizliği, program yoğunluğu, sınırlı öğretim materyalleri, çoktan seçmeli sınavlar ve pedagojik alan bilgisi eksikliği gibi nedenlerin olduğunu göstermektedir. Bu noktada, öğretmenlere, öğrenen-odaklı öğrenme ortamları oluşturmaları için yeterli fırsat verilmesi noktasında daha fazla çaba gösterilmesi ihtiyacı ortaya çıkmaktadır. Öğretmenlerin sınıf-içi uygulamalarındaki değişiklik için, öğretmenlerin inançlarında kavramsal bir değişikliğe ihtiyaç vardır. Etkili hizmet-içi eğitim programları vasıtasıyla öğretmenlerin, bilgi ve becerilerini daha etkin bir şekilde uygulamalarına aktaracakları düşünülmektedir. Ayrıca düzenlenecek hizmetiçi eğitim programlarında, öğretmenlerin yukarıda belirtilen faktörlerle (örn. kalabalık sınıf mevcutları, motivasyon eksikliği) başa çıkma yöntemlerine de odaklanılması önemlidir.

Çalışma, ilgili alanyazında hakkında sınırlı sayıda çalışma bulunan, öğretmenlerin kendi öğrenmelerine yönelik inançları ve sınıf uygulamaları arasındaki ilişki hakkında genel bir bakış açısı sunmaktadır. Ayrıca sonuçlar, öğretmenlerin öğrenen merkezli yaklaşımları uygulamalarına engel olan unsurlar ve bununla ilişkili olarak programa bağlılıkları hakkında değerli bilgiler sunmaktadır. Araştırma, öğretmenlerin öğrenen merkezli inançlar ve uygulamalar geliştirmeleri için fırsatlar sağlamak amacıyla öğretmen eğitimi programlarına ve hizmet-içi eğitim programlarına yeni bir yol önermeye yönelik potansiyele sahiptir. Görüşme verilerini destekleyecek sınıf içi gözlemlerinin kullanılmaması, çalışmanın sınırlılıkları arasındadır. Daha sonra yapılacak çalışmalarda, öğretmen görüşmeleri, sınıf gözlemi ve doküman analizi gibi çeşitli nitel veri toplama araçlarının da işe koşularak, öğretmenlerin kendi öğrenmelerine yönelik inançları ve uygulamaları arasındaki ilişkinin daha detaylı irdelenmesi noktasında ihtiyaç vardır.

INTRODUCTION

Recent learner-centered educational reforms have affected education systems all over the world, leading to an increasing research interest in how teachers change their beliefs and instructional practices (e.g, Lim, Tondeur, Nastiti, & Pagram, 2014; Mason & Payant, 2018).

In this context, teachers are expected to shift their existing beliefs about teaching and learning from knowledge-transmission to knowledge co-construction (Soysal & Radmard, 2017). It should be noted here that effective classroom practices and desired student outcomes are directly related with teaching practice (Wang, Haertel & Walberg, 1993). There is an agreement that 'pedagogical decision making' in the classroom (Li, 2013, p. 175) is strongly affected and predicted by teachers' beliefs. Numerous researchers have highlighted that effective teaching is "unlikely to happen without changes to professors' conceptions of teaching" (McAlpine & Weston, 2000, p. 377). As suggested by Borg (2003), teachers are active decision makers with "context-sensitive networks of knowledge, thoughts, and beliefs" (p. 1). Beliefs are powerful (Nespor, 1987) and robust to change (Block & Hazelip, 1995; Farrell, 1999).

Teachers' beliefs and practices are a major area of interest within the field of teacher education (e.g., Bird, Anderson, Sullivan & Swidler, 1993; Bolhuis & Voeten, 2004; Guskey, 1986, Pajares, 1992; Richardson, Anders, Tidwell, & Lloyd 1991; Sahin & Yildirim, 2015;Woolfolk Hoy, Davis & Pape 2006). Decades of literature indicates that there is no consensus on the relationship between teachers' beliefs and their practices (Khader, 2012; Trigwell & Prosser, 1996). Although Nespor's study (1987) found that teachers' beliefs and classroom practices were unrelated, evidence also suggests that there is a link between teachers' pedagogical beliefs and instructional practices (Ahonen, Pyhältö, Pietarinen & Soini, 2014; Guskey, 1986; Richardson, Anders, Tidwell, & Lloyd 1991; Sahin & Yildirim, 2015). However, numerous obstacles (e.g., class size, limited materials, lack of time, high-stakes testing, teachers' workload, classroom management) affect teachers' implementation (Botvin, 2004; Cheung, 2012; Gelmez-Burakgazi, 2019); teachers' beliefs seem to be directly related to these barriers as well.

Teachers' beliefs about their students' learning, and thus classroom practices, are related to teachers' beliefs about their own learning (Brauer & Wilde, 2018). Therefore, understanding teachers' beliefs about their own learning and their students' learning could provide valuable information for developing an understanding of how teacher educators can help teachers use learner-centered practices in the classroom. However, although a considerable amount of literature has been published on teachers' beliefs and practices in different teacher education contexts - i.e., pre-service teacher education (e.g., Richardson, 2003, Yuan & Lee, 2015; Zheng, 2009) and teacher learning (e.g., Borg & Alshumaimeri, 2017; Ng & Farrell, 2003; Weinstein, 1990; Wideen et al., 1998), there exists a limited body of research on how teachers' beliefs about their own learning impact teachers' instructional practices. With this in mind, the purpose of this study is to examine the relation between secondary school teachers' beliefs about their own learning and their classroom practices.

1.1. Teacher Beliefs

The concept of teacher beliefs is central to the entire field of teacher education. Rokeach (1972) defines a belief as "any simple proposition, conscious or unconscious, inferred from what a person says or does, capable of being preceded by the phrase 'I believe that…' (p. 113). Educational beliefs within the teaching profession is such a complicated concept that Nespor (1987) termed it the "entangled domain" (p.325). In his comprehensive review of studies on teachers' beliefs, Kagan (1992) divides beliefs into two forms: teachers' sense of self-efficacy and content-specific beliefs. While the former concerns how a teacher perceives his/her teaching skills and abilities, the latter is described as "a teacher's orientation to specific academic content" (p.67). There is also a link between teachers' personal knowledge and beliefs, discussed by Kagan (1992) as follows:

A teacher's knowledge of his or her profession is situated in three important ways: in context (it is related to specific groups of students), in content (it is related to particular academic material to be taught), and in person (it is embedded within the teacher's unique belief system) (p.74).

Data from several studies indicate that teachers' beliefs form, evolve and change over time depending on various factors. Richardson (1996) points out that beliefs are shaped by individuals' own educational experiences, including their first school years, and discusses three categories in the literature on learning to teach: personal experiences, experiences with schooling and instruction, and experiences with formal knowledge. In a similar vein, Kagan (1992) argues that "As a teacher's experience in classrooms grows, his or her professional knowledge grows richer and more coherent, forming a highly personalized pedagogy - a belief system that constrains the teacher's perception, judgment, and behavior" (p.74). Highlighting the role of instructional processes for teachers' beliefs, Wood, Cobb, and Yackel, as cited in Kagan (1992), point out that "teacher belief may be mediated by epistemological differences inherent in respective content areas or by the kinds of instructional materials that happen to be available" (p.73).

Focusing on the connection between beliefs and practice, Johnson (1994) identifies three assumptions: "(1) Teachers' beliefs influence perception and judgment. (2) Teachers' beliefs play a role in how information on teaching is translated into classroom practices. (3) Understanding teachers' beliefs is essential to improving teaching practices and teacher education programs" (p. 439). These assumptions highlight the influential role of teachers' beliefs on their perceptions, judgement and instructional processes. Johnson's (1994) assumptions are complemented by a study by Nespor (1987) suggesting that even when teachers have similar knowledge, they might hold different beliefs. Therefore, one could further conclude that in education beliefs may be complex and thus, as Fullan (2019) argued, changes like shifting from teacher-centered to learner-centered education might include 'complex' issues.

1.2. *Relation between Teacher Beliefs about Their Own Learning and Instructional Practices*

A question that needs to be deeply explored in the literature is whether there is a relationship between teachers' beliefs about their own learning and their students' learning. Do teachers themselves prefer to learn a new topic with learner-centered approaches or teacher-centered approaches, which is characterized by the direct transmission of knowledge? If teachers prefer learner-centered or transmissive learning environments, do they prefer the same approach in their instructional processes? Teachers might hold different beliefs for their own learning and their students' learning. Teachers' previous learning experiences play a pivotal role in shaping teachers' beliefs about their own learning (Kagan, 1992; Richardson, 1996). Teachers first develop a perspective on their own learning and later develop one for their students (Meyer et al. 1999). Thus, teachers' awareness of their beliefs about their own learning is important for improving understanding of their classroom practice. Teacher educators play a crucial role in helping pre-service teachers to gain this awareness and transform their expertise into effective instruction (Hoyt-Reynolds, 1999).

Although teachers' beliefs about their own learning may be different from their classroom practice, teachers' beliefs about their own learning and their students' learning are argued to be intertwined (Brauer & Wilde, 2018). Drawing on the assumed/expected connection between teachers' beliefs about their own learning and their instructional practices, one can ask the following question: Do we expect teachers to transfer their beliefs about their own learning into their instructional practice? If the answer to this question is yes, we also need to answer the follow-up questions of which beliefs should be transferred to instructional processes. More than two decades ago, Kagan (1992) pointed out that: "An issue of profound theoretical importance concerns the basis on which one can judge teachers' beliefs. Are all beliefs of equal value or appropriateness?" (p. 83). Likewise, Apple (1998) raised an important question: "Whose knowledge is of most worth?" (p. 339). These questions encouraged us to raise the very same question for our readers: "Which beliefs about teachers' own learning are of most worth and should be transformed into practice?". In this regard, Kagan's (as cited in Kagan, 1992) argument is noteworthy:

...researchers may ultimately have to provide evidence that certain beliefs and reflections are related to desirable student outcomes. Otherwise, key constituencies (e.g., teacher educators, parents, and state departments of education) may not be persuaded that fundamental changes in teacher education are needed or that an emphasis on conceptual change is of some real value. (p.83)

Thus, it is important to draw the attention of teachers on their own beliefs and reflections. From this point of view, "a complete transformation cannot be achieved only through reforms in curricula or systems. Because teachers are not the passive participants of the implementation process." (Gelmez - Burakgazi, 2019, p.238)

1.3. Learner - Centered Approaches

Several lines of evidence suggests that learner-centered approaches are related to desirable student outcomes (e.g., Granger et al., 2012; Kim, 2005). Up to now, a number of studies have demonstrated that the use of learner-centered approaches increases students' achievement (e.g., McCombs & Whistler, 1997) and enables students to develop positive attitudes towards learning processes. In order to enhance the effectiveness of learning and teaching environments, learner-centered practices that consider student needs and characteristics should be deployed (McTighe & Brown, 2005). Only then is learning maximized and students can successfully deal with the real world. The concept of "learning" in a learner-centered approach was described by McCombs (2004) as follows:

(...) non-linear, recursive, continuous, complex, relational, and natural in humans. Learning is enhanced in contexts where learners have supportive relationships, have a sense of ownership and control over the learning process, and can learn with and from each other in safe and trusting learning environments. (p. 7)

In learner-centered classrooms, students have a place at the heart of the teaching and learning environment, which is organized on the basis of their needs and interests (Brown, 2003). In this study, this view of Brown was used when referring to learner-centered approaches. Another feature that characterizes the learner-centered classrooms is related to the type of interaction among students. Individual and pair work activities as well as cooperative projects are prominent in learner-centered classrooms (Zayapragassarazan & Kumar, 2012).

In Turkey, where the current study was conducted, progressive pedagogy and learner centered approaches have become the core principles of the curricula since 2004 starting from primary education. In other words, Turkish government has been attempting to shift teaching-learning processes from teacher - centered approaches to learner - centered ones for more than a decade. Evidence indicates that the degree to which learner-centered approaches are used might vary depending on a number of factors such as teachers' beliefs about learning, teaching, and their students; teachers' pedagogical content knowledge, teachers' motivation to use learner-based practices in the classroom as well as the level (e.g., primary school level, secondary school level) and SES (e.g. low, medium, high) of the schools. As for the level of the schools, Tomasello, Kruger and Ratner (1993) suggest that learning via instructed learning is more effective for younger pupils. However, at the secondary level, interactive groupwork with appropriately designed guidance (Kirschner, Sweller, & Clark, 2006; Zayapragassarazan & Kumar, 2012), as proposed by learner-centered approaches (Baines, Blatcford & Kutnick, 2003; Brown, 2003), gains importance for better teaching and learning. Although a number of studies have been conducted about if and how teachers use learner-based approaches in the classrooms after the educational reform (e.g. Altinyelken, 2011; Kizilaslan, Sozbilir & Yasar, 2012; Töman, Akdeniz, Odabasi Çimer & Gürbüz, 2013) and the tension between teachers' beliefs and practices at various levels of education (e.g. Eveyik - Aydin, Kurt & Mede, 2009; Unal & Unal, 2009; Uysal & Bardakci, 2014; Uztosun, 2013), it seems that a systematic understanding of if and how teachers' beliefs about their own learning affect their own classroom practices at secondary school level is still lacking. This indicates a further need to explore the link

between teachers' beliefs about their own learning and instructional practices at the secondary school level. The present study, therefore, set out to investigate secondary school teachers' beliefs about their own learning and examine the relation between teachers' beliefs about their own learning and their classroom practices. The problem statement is twofold: The relation between teachers' beliefs and their instructional practices and the hindrances that influence secondary school teachers who prefer to learn a new topic best exclusively or mostly with learner-centered approaches in using learner-centered practices in the classroom. In line with this problem statement, this study aimed to answer the following research questions:

1. What kind of relationship does exist between teachers' beliefs about their own learning and their instructional practices?
2. What factors hinder teachers who prefer to learn a new topic best exclusively or mostly with learner-centered approaches in using learner-centered practices in the classroom?

METHOD

A qualitative phenomenological study was conducted to examine secondary school teachers' lived experiences on their actual classroom practice and their beliefs about their own learning. The central focus in phenomenological design is "how people interpret their worlds and how we can interpret their interpretations" (Shank, 2006, p. 132). We aimed to explore our research questions in detail by utilizing a phenomenological study design.

2.1. Participants

A maximum variation sampling strategy was used to select secondary school teachers on the basis of their gender, teaching experience, and the SES of the schools in which they worked. "The evaluator using a maximum variation sampling strategy would not be attempting to generalize findings to all people or all groups but would be looking for information that elucidates programmatic variation and significant common patterns within that variation" (Patton, 1990, p. 172). Thus, the use of a maximum variation sampling strategy in the present study enabled the researchers to explore different aspects of the problem by taking different variables into consideration. Data collection continued until the researchers reached data saturation. Table 1 provides demographic profiles of the participants. 50 secondary teachers (19 male; 31 female) from 12 different fields (computer education, biology, physics, mathematics, technology design, English language, German language, history, Turkish language and literacy, psychology, philosophy, geography) participated in the study on a voluntary basis. Participants ranged in age from 21 to 57, and their teaching experience ranged between 1 and 31 years. Pseudonyms were used in presenting the results (e.g., T1 for teacher 1; T2 for teacher 2).

Table 1
Demographic Profiles for the Participants (n=50)

Pseudonyms	Teaching Areas	Gender	Teaching Experience	School's SES
T1	CEIT	Male	6	Low
T2	Maths	Female	23	Medium-high
T3	CEIT	Male	19	Medium
T4	History	Female	30	Low
T5	CEIT	Female	8	Low
T6	Turkish	Female	1	Medium
T7	CEIT	Male	9	Low
T8	History	Male	17	Low-medium
T9	Tech Des	Female	29	Medium
T10	English	Female	21	Medium
T11	CEIT	Male	12	Low
T12	CEIT	Female	8	Low-medium
T13	CEIT	Male	10	Medium
T14	CEIT	Male	17	Low

T15	TLL	Male	20	Low
T16	CEIT	Male	9	Medium
T17	CEIT	Male	13	Low-medium
T18	CEIT	Female	23	Low-medium
T19	Physics	Male	15	Low
T20	Maths	Female	15	Low
T21	English	Female	11	Medium-high
T22	Maths	Female	14	Low
T23	English	Female	7	Low
T24	TLL	Female	23	Medium
T25	CEIT	Female	5	Low-medium
T26	CEIT	Female	18	low-medium/Medium
T27	TLL	Female	22	Low
T28	CEIT	Male	17	Low-medium
T29	English	Female	31	Low
T30	History	Male	15	Medium-high
T31	CEIT	Female	18	Medium
T32	Physics	Male	31	Low
T33	TLL	Female	24	Low
T34	English	Female	5	Medium
T35	Maths	Female	15	Low-Medium
T36	Physics	Male	26	Medium
T37	TLL	Female	25	Medium/Medium-high
T38	Maths	Female	4	Low-medium
T39	TLL	Female	6	Low
T40	Psychology	Male	14	Medium
T41	Philosophy	Female	23	Medium
T42	TLL	Male	16	Medium
T43	Biology	Female	17	Low
T44	TLL	Female	30	Medium/Medium-high
T45	Geography	Female	20	Low-medium
T46	German	Female	6	Low
T47	TLL	Female	6	Low
T48	Maths	Female	2	Low
T49	History	Male	12	Low
T50	English	Male	12	Low-Medium

Note. CEIT=Computer Education and Instructional Technology, TLL=Turkish Language and Literacy, Tech Des= Technology and Design, SES=Socio-economic Status

2.2. Data Collection Instrument

The main data collection instrument in this study was a semi-structured in-depth interview guide developed by the researchers. It was a two-part interview form. The first section encompassed four demographic questions (e.g., teachers' gender, age, field, and the year of teaching experience). The second section was composed of questions about the schools in which the teachers were currently working (e.g., socio-economic status, level of parental support), teachers' instructional practices, and teachers' beliefs about their own learning. The researchers received expert feedback on the guide from two experts in curriculum and instruction, which was used to revise the guide. In line with the feedback received from the experts, the interview guide was revised. Specifically, wording of two questions were altered, and two demographic information prompts (i.e., SES level, class size) were added to the interview schedule. The initial two interviews were conducted as pilot interviews, and then were included in the study.

2.3. Procedures

Data collection began upon receiving approval from the institutional review board. Firstly, schools were visited and school principals were informed about the study. The rationale and purpose of the study was explained to teachers, who could then volunteer to participate. Some teachers were also identified via referrals. Meetings with one of the researchers were arranged according to teachers' availability. Each individual interview lasted around 20-30 minutes. The interviews were conducted during the 2016-2017 spring semester in the capital city of Turkey. All interviews were audio-recorded with the participants' permission. The researchers had considerable experience in teaching. However, researchers were careful not to influence the research using foresight in a way to affect trustworthiness of the study. The researchers' previous experiences as teacher educators contributed them in data collection, data analysis and interpretation of the data.

2.4. Data Analysis

All interviews were transcribed verbatim by the researchers. In order to better capture secondary teachers' expressed beliefs and experiences in the teaching-learning environment, the NVivo 11 plus program was used to facilitate data analysis. The data were analyzed using inductive content analysis. A preliminary code list was developed in parallel with the research questions and relevant literature. The preliminary code list was revised as the researchers coded the data.

Some example codes were "creating flexible learning environments", "class size", and "learner-centered approaches". Data were double-coded by the researchers, as suggested by Creswell (1998). Firstly, the data was coded by the second author. Then, randomly selected five interviews were re-coded separately by the first author. After comparing and discussing the coded documents, the researchers reached a consensus. Then the whole data was double-coded by the second author, and the coding process was finalized.

2.5. Validity and Reliability

Validity and reliability in qualitative research cannot be addressed in the same way with quantitative research (Shenton, 2004). In order to enhance the trustworthiness of the study, the researchers considered following four criteria as also suggested by Guba (1981): Credibility, transferability, dependability, and confirmability. For credibility, iterative questioning was used in interviews. The researchers' role was discussed. The related literature was investigated to frame the findings, and the findings were supported with quotations from the interviews. Besides, the data collection instrument was piloted and the data was double-coded with a consensus between the researchers. For transferability, dependability, and confirmability all procedures including participants, data collection procedures, analysis and findings were described in detail. In addition to that, purposeful sampling was used in the study which was explained as a way to enhance transferability by Lincoln and Guba (1985). Lastly, expert opinion on the data collection tool was a way to ensure confirmability of the study.

RESULTS

The qualitative data analysis of interviews conducted with teachers revealed two major themes in terms of the link between teachers' beliefs about their own learning and instructional practices. Figure 1 presents the themes and categories emerging from the data. The results indicated that the teachers fell into two major groups in terms of the relation between their beliefs about their own learning and their instructional practices. The first group of teachers (n=33) were found to teach in line with their beliefs about their own learning. The results showed that there was a close fit between these teachers' beliefs about their own learning and their in-class practices. The second group of teachers (n=17) exhibited a misfit between their beliefs about their own learning and instructional practices. Both of these groups will be presented in more detail in the following section.

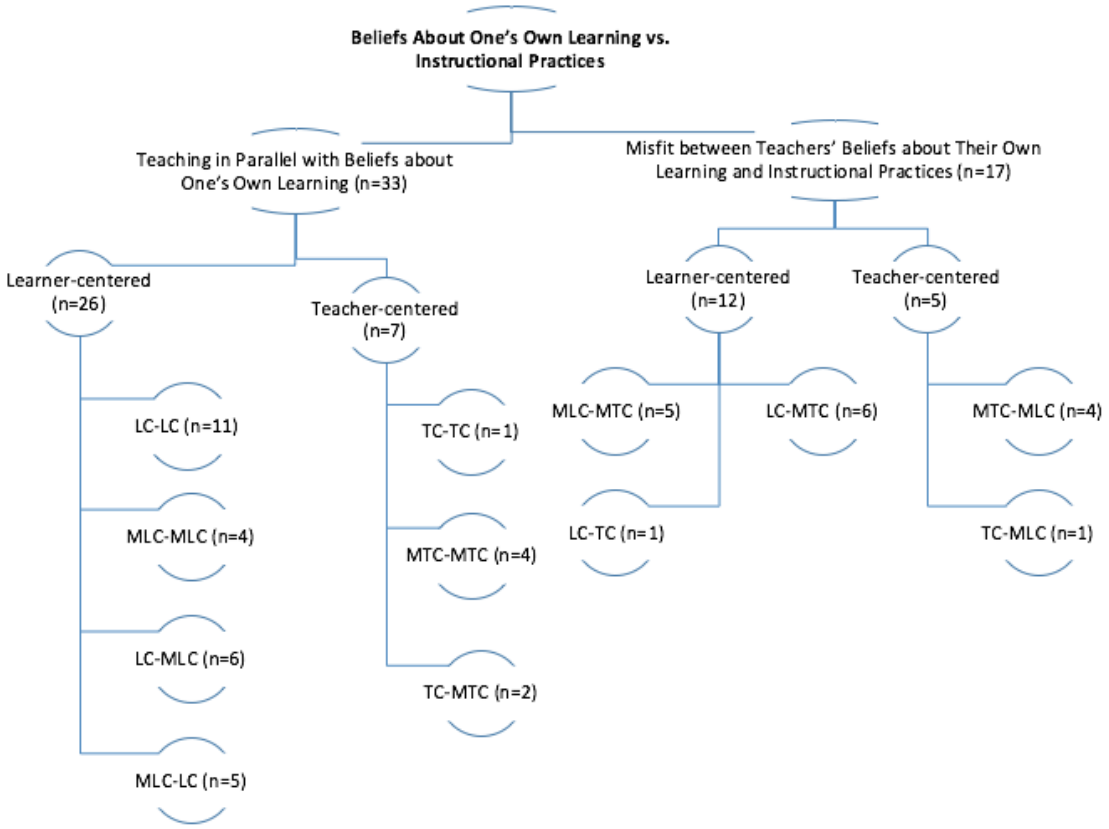

Figure 1. The themes and categories emerging from the data.

Note 1. LC=Learner-centered, MLC=Mostly Learner-centered, TC=Teacher-centered, MTC=Mostly teacher-centered

Note 2. Throughout the results and discussion sections, we used four different codes (learner-centered=LC, mostly learner-centered=MLC, Teacher-centered=TC, and mostly teacher-centered=MTC) to refer to the instructional approaches the teachers in the present study deployed in their classrooms. The aforementioned terms were also used to refer to the teachers' beliefs about their own learning. Specifically, a teacher utilizing a learner-centered (LC) approach in the classroom is a teacher who only uses learner-centered approaches as part of his/her instructional practices whereas a teacher deploying a mostly learner-centered (MLC) approach in the classroom uses mostly learner-centered approaches and occasionally makes use of teacher-centered approaches. Similarly a teacher utilizing a teacher-centered (TC) approach in the classroom is a teacher who only uses teacher-centered approaches as part of his/her instructional practices whereas a teacher utilizing a mostly teacher-centered (MTC) approach in the classroom is, as the name implies, mostly uses teacher-centered approaches and occasionally uses learner-centered practices in the classroom.

3.1. Teaching in Parallel with Beliefs about One's Own Learning

The interview data revealed that the majority of the teachers (n=33) completely or mostly taught in parallel with their beliefs about their own learning, and there was a close fit between these teachers' beliefs about their own learning and the instructional approaches they utilized as part of their classroom practices. The teachers fell into two groups in terms of the approaches they favored for teaching and learning. Table 2 presents the patterns that emerged and associated frequencies for the relations between teachers' beliefs about their own learning and their instructional practices.

The first group of teachers (n=26; 16 Female, 10 Male) believed that they learn best exclusively or mostly with learner-centered approaches and indicated that they follow exclusively or mostly a

learner-centered approach as part of their own instructional practices as well. This group of teachers included 10 teachers of Computer Education and Instructional Technology, five Turkish Language and Literacy teachers, three English teachers, two maths teachers, two history teachers, one technology and design teacher, one biology teacher, one geography teacher, and one German teacher. The teachers' teaching experience ranged between one and 31 years, and they worked in schools with different SES levels (i.e., low SES schools = 12 teachers; low-medium SES schools = 7 teachers; medium SES schools= 4 teachers; medium-high SES schools= 2 teachers; medium/medium-high SES schools= 1 teacher). The results indicated that the teachers in this group preferred to learn a new topic exclusively or mostly with learner-centered approaches. As *learners*, these teachers preferred that a teacher employ learning and teaching processes where they could learn by doing, construct knowledge themselves, integrate new knowledge into daily life, and create real-life connections with the new knowledge and skills. The results further indicated that these teachers expected an educator to be a subject matter expert, meet their interests and expectations, create flexible outside learning environments, and use various in-class techniques such as drama, discussion, brainstorming, and research-based activities. The interview results further indicated that as teachers, these teachers taught in parallel with their beliefs about their own learning. They exclusively or mostly used learner-centered approaches and instructional materials in their classrooms. To illustrate, reflecting on how he preferred to learn and teach, T2 (Maths, Female, 23 years of experience) stated that:

I want a topic to be taught through making connections with something… My learning model is as follows: What can I do?, What do I try to learn?...I try to apply my learning model to my students...I mostly use constructivism.

Another notable quotation is from T45 (Geography, Female, 20 years of experience) who highlighted the importance of contextualization during the learning process, pointing out that "The other side of the world's being taught like a legend cannot leave a permanent effect on me." She explains how she uses learner-based approaches in her instruction as follows:

...We have to take students' social background into consideration. There are students who have not seen another city or even any place other than their own neighborhood. Therefore, when we talk about Washington in [United States of] America, students cannot visualize it. We have to contextualize it. Thus, we sometimes turn the classroom into a theater stage, or we sometimes try to do activities such as creating discussion environments.

The second group of teachers (n=7; 5 Female, 2 Male) who reported that they taught in parallel with their beliefs about their own learning were found to favor teacher-centered learning and teaching processes. This group of teachers included two teachers of Computer Education and Instructional Technology, two Turkish Language and Literacy teachers, two maths teachers and one physics teacher. Four of these teachers worked in a low SES school, one teacher worked in a low-medium SES school, one teacher worked in a low-medium/medium SES school and one teacher worked in a medium/medium-high SES school. Their year of teaching experience ranged between 14 and 31 years. Data from qualitative interviews indicated that this group of teachers preferred that an educator use only or mostly lecturing when teaching them a new topic, and use tests, quizzes, worksheets, and/or handouts to enhance comprehension of the new knowledge. As for their own teaching practices, these teachers reported that they mostly used teacher-centered approaches and materials in class as well despite curriculum-based expectations. To illustrate, reflecting on how he learns, T32 (Physics, Male, 31 years of experience) stated that: "When I encounter a new topic, its main idea should be taught first, and then details should be provided". The data from his interview indicated that he followed a similar approach in his instruction, as seen in the following representative quote: "I mostly use question-answer technique, lecturing…I use smart boards as an educational material… and I use my course notes and supplementary materials."

Table 2

Teaching in Parallel with Beliefs about One's Own Learning: The Patterns that Emerged and Associated Frequencies for the Relations between Teachers' Beliefs about Their Own Learning and Their Instructional Practices

Teaching Areas	**LC-LC (n=11)**	**MLC-MLC (n=4)**	**TC-TC (n=1)**	**MTC-MTC (n=4)**	**LC-MLC (n=6)**	**MLC-LC (n=5)**	**TC-MTC(n=2)**
CEIT (n=12)	T1 (6, L, M) T11 (12, L, M) T14 (17, L, M) T31 (18, MD, F)	T12 (8, L-MD, F) T17 (13, L-MD, M) T25 (5, L-MD, F)		T26 (18, L-MD/ MD, F)	T7 (9, L, M) T18 (23, L-MD, F)	T16 (9, MD, M)	T28 (17, L-MD, M)
Maths (n=4)				T20 (15, L, F)	T2 (23, MD-H, F)	T48 (2, L, F)	T22 (14, L, F)
History (n=2)	T30 (15, MD-H, M)				T8 (17, L-MD, M)		
TLL (n=7)	T39 (6, L, F)			T27 (22, L, F) T37 (25, MD/ MD-H, F)	T15(20, L, M)	T6 (1, MD, F) T44 (30, MD/MD-H, F) T47 (6, L, F)	
Tech Des (n=1)		T9 (29, MD, F)					
English (n=3)	T23 (7, L, F) T29 (31, L, F)				T50 (12, L-MD, M)		
Physics (n=1)			T32 (31, L, M)				
Biology (n=1)	T43(17, L, F)						
Geography (n=1)	T45(20, L-MD, F)						
German (n=1)	T46 (6, L, F)						

*Note. *=The first abbreviation in this row represents teachers' beliefs about their own learning and the latter one represents their instructional practices.* LC=Learner-centered , MLC=Mostly Learner-centered, T=Teacher-centered, MTC=Mostly Teacher-centered , CEIT=Computer Education and Instructional Technology, TLL=Turkish Language and Literacy, Tech Des=Technology and Design
Numbers used in the parentheses=Year of Experience, L=Low SES, MD=Medium SES, H=High SES, F=Female, M=Male.

The data reviewed here suggest that of the 33 teachers whose beliefs about their own learning and instructional practices exhibited a close fit, 26 teachers were found to hold learner-centered beliefs and practices (i.e., LC-LC=11 teachers; LC-MLC=6 teachers; MLC-LC=5 teachers; MLC-MLC=4 teachers), while 7 teachers were found to have teacher-centered beliefs and practices (i.e., TC-TC=1 teacher; TC-MTC=2 teachers, MTC-MTC=4 teachers).

3.2. Misfit between Teachers' Beliefs about Their Own Learning and Instructional Practices

The results indicated that there was a misfit between 17 teachers' beliefs about their own learning and their instructional practices. These teachers fell into two groups in terms of the relation between their beliefs about their own learning and their instructional practices. Table 3 presents the patterns that emerged and associated frequencies.

Table 3

Misfit between Teachers' Beliefs about Their Own Learning and Instructional Practices: The Patterns that Emerged and Associated Frequencies for the Relations between Teachers' Beliefs about Their Own Learning and Their Instructional Practices

Teaching Areas	MTC-MLC (n=4)	MLC -MTC (n=5)	LC -MTC (n=6)	LC -TC (n=1)	TC-MLC (n=1)
CEIT (n=3)	T13 (10, MD, M)		T3 (19, MD, M) T5 (8, L, F)		
Maths (n=2)				T35 (15, L-MD, F)	T38(4, L-MD, F)
History (n=2)			T4 (30, L, F) T49 (12, L, M)		
TLL (n=3)	T33 (24, L, F)	T24 (23, MD, F) T42 (16, MD, M)			
English (n=3)	T21 (11, MD-H, F) T34 (5, MD, F)	T10 (21, MD, F)			
Physics (n=2)		T19 (15, L, M) T36 (26, MD, M)			
Psychology (n=1)			T40 (14, MD, M)		
Philosophy (n=1)			T41 (23, MD, F)		

Note. *=The first abbreviation in this row represents teachers' beliefs about their own learning and the latter one represents their instructional practices. LC=Learner-centered, MLC=Mostly Learner-centered, T=Teacher-centered, MTC=Mostly Teacher-centered, CEIT=Computer Education and Instructional Technology, TLL=Turkish Language and Literacy, Numbers used in the parentheses=Year of Experience, L=Low SES, MD=Medium SES, H=High SES, F=Female, M=Male.

The first group of teachers (n=12; 6 Female, 6 Male) stated that they preferred to learn a new topic exclusively or mostly through learner-centered approaches. In contrast, they reported using only or mostly teacher-centered approaches as part of their instructional practices. This group of teachers included two teachers of Computer Education and Instructional Technology, two Turkish Language and Literacy teachers, two history teachers, two physics teachers, one maths teacher, one English teacher, one Psychology teacher and one Philosophy teacher. Seven of the teachers worked in a medium SES school and five teachers worked in a low SES school. The teachers' teaching experience ranged between eight and 30 years, reflecting on his beliefs about his own learning, T49 (History, Male, 12 years of experience) stated that he would like to learn via discovery learning. However, the data analysis revealed that he mostly used teacher-centered approaches in his classroom practice, as can be illustrated in the following quotation:

...When starting a new topic, I generally use the question-answer technique to attract students' attention. I write what I teach and what we will do on the board and use 5-10 minutes of lecturing. If

there is a documentary or video about the new topic, I show it to the students, and ask them to discuss it. If we like the answers, I sometimes ask them to write them in their notebooks…

The results revealed that a large class size, lack of teacher motivation, lack of student interest, overloaded curricula, limited instructional materials, high-stakes exams, and lack of pedagogical content knowledge were among the major factors that decreased these teachers' ability to teach in parallel with their beliefs about their own learning as well as curriculum-based expectations. To illustrate, T5 (CEIT, Female, 8 years of experience) regards a lack of student motivation as one of the factors that causes him to use mostly lecturing instead of learner-based approaches:

...I have seen that lecturing, the most boring and negative approach we consider, is the method we mostly use. Because when I use other methods [learner-based ones], I expect student effort and motivation so that I can act with the same motivation...Students are very active; and the actions and responsibilities that they do not take decrease my motivation. Thus, unfortunately, I mostly use lecturing.

T4 (History, Female, 30 years of experience) considers limited instructional materials and class size as the factors behind the differences between her beliefs about her own learning and her instructional practice:

We, history teachers, have serious problems. Our smart boards are not active, we do not have projectors. If we had those, we would use documentaries, visuals, music… Sometimes we bring our laptops to our classrooms. We try to show something using them. 35 students gather around a laptop, they can't see anything, understand anything. We do not have maps, visual materials... Thus we use question-answer, lecturing, and sometimes discussion in our classrooms.

T35 (Maths, Female, 15 years of experience), who prefers learner-based approaches for her own learning, stated that she used teacher-centered approaches in her instruction due to high-stakes exams, as illustrated in the following quotation:

Honestly, I use my own technique. I do not use the techniques I learned during my education [learner-based techniques] as we train students for exams. Test technique is important to us. The right thing is students answering the questions accurately and fast… Our aim is to help them [students] to increase the success level that they will have in the university exams...

The second group of teachers (n=5; 4 Female, 1 Male) who exhibited a misfit between their beliefs about their own learning and their instructional practice stated that they preferred only or mostly teacher-centered approaches when asked how they would prefer to learn a new topic. However, they reported using mostly learner-centered approaches as part of their instructional practices. This group included one teacher of Computer Education and Instructional Technology, one teacher of Turkish Language and Literacy, two English teachers, and one maths teacher. Their teaching experience ranged between four and 24 years. Two of these teachers worked in a medium SES school, one teacher worked in a low-medium SES school, one teacher worked in a low SES school, and one teacher worked in a medium-high SES school. T38's (Maths, Female, 4 years of experience) beliefs about her own learning and her instructional processes serve as an example here. The analysis of T38's interview data indicated that she preferred teacher-centered approaches for her own learning, as seen in the following quotation:

I want someone to lecture about the topic. Before that she could ask questions to me too. I mean s/he can ask me what I know about that topic. I want her/him to give enough examples and teach something through resolving lots of questions.

The data indicated that although T38 did use some teacher-centered techniques as part of her instruction, she mostly used learner-centered approaches, as seen below:

...For example, I do not give formulas to the students directly. I give them clues and help them to find a formula. I mean, I mostly use a discovery learning strategy.

Similarly, T34 (English, Female, 5 years of experience) stated that she would like to learn a new topic mostly through teacher-centered approaches, as seen below:

I primarily want an educator to teach a topic by teaching its main idea and its use [in daily life] in a simplified way. When someone gives lots of examples about a topic it makes me understand the topic better. Then I want the educator to lecture about the topic in a very detailed way. The teacher's lecturing style is important to me as well.

However, analyzing the data revealed that T34 used mostly learner-centered approaches in her classroom practice, which was not in parallel with her beliefs about her own learning.
Upon using lecturing to introduce the topic, I use discussion and the case study method to increase student participation… I use educational games. When I use role plays I use a pair or group work technique. I ask my students to conduct a project about the topic and present it to their friends. I try to use various techniques through the assignments I give, handouts, and projects.

Considering all of this evidence and the related literature on learner-centered beliefs and instructional practices, the data reviewed here indicate that out of 17 teachers who exhibited a misfit between their beliefs about their own learning and their instructional practices, 12 teachers were found to hold learner-centered beliefs about their own learning but not learner-centered instructional practices (i.e., LC-TC=1 teacher; LC-MTC=6 teachers; MLC-MTC=5 teachers), while 5 teachers were found not to have learner-centered beliefs about their own learning but mostly learner-centered instructional practices (i.e., TC-MLC=1 teacher; MTC-MLC=4 teachers).

CONCLUSION AND DISCUSSION

Various dynamics affect teaching and learning processes within the classroom environment. In this study, we mainly focused on teachers' beliefs about their own learning and instructional practices to gain an understanding of whether teachers transferred their beliefs about their own learning to their in-class practices in a strict, centralized education system which requires teachers to deploy constructivist teaching in their instruction.

The results indicated that the teachers in our study believed that they learn best either exclusively or mostly through either learner-centered or teacher-centered approaches. As for the relation between the teachers' beliefs about their own learning and their in-class practices, the results indicated that the teachers fell into two groups: The first group, the majority (n=33), was found to teach in accordance with their beliefs about their own learning, while the second group (n=17) exhibited a misfit between their beliefs about their own learning and their instructional practices.

On the basis of the results of our study, one might pose an important question, which was previously raised by Kagan (1992), about the equality or appropriateness of teacher beliefs. If it is expected from teachers to transfer their beliefs about their own learning to their practices, defining appropriate beliefs to transfer is another point to be considered. Evidence from research studies indicates that use of learner-centered approaches is related to desirable student outcomes, as it creates more sustainable knowledge and skills compared to teacher-centered approaches (e.g. Brown, 2003; Roehl, Ready & Shannon, 2013). Thus, constructivism-oriented educational reforms defining learned-centered teaching as a desired approach continue to be implemented all around the world (Lim et al, 2014; Mason & Payant, 2018). Turkey initiated a constructivist-oriented educational reform in 2004-2005 to increase the quality of education. Parallel with the educational reform, teachers are required to deploy learner-centered approaches in the classroom, which makes learner-centered approaches desired practices in Turkish context as well (Soysal & Radmard, 2017).

The results of an inductive content analysis of interviews with 50 teachers in the present study indicated that out of 33 teachers who demonstrated a close fit between their beliefs about their own learning and their instructional practices, 26 teachers from a variety of subject areas (i.e., 10 teachers of Computer Education and Instructional Technology, five Turkish Language and Literacy teachers, three English teachers, two maths teachers, two history teachers, one technology and design teacher, one biology teacher, one geography teacher, and one German teacher) were found to hold learner-centered beliefs and practices. Considering that learner-based instructional practices in the aforementioned subject areas are desired practices in the Turkish context to enhance meaningful learning and retention of knowledge, it is promising to see that these 26 teachers with different years of teaching experience mirrored their learner-centered beliefs into their instructional practices in schools with different SES levels.

The results indicated that out of 33 teachers who exhibited a close fit between their beliefs about their own learning and their instructional practices, seven of them (i.e., two teachers of Computer Education and Instructional Technology, two Turkish Language and Literacy teachers, two math teachers and one Physics teacher) had teacher-centered beliefs and teacher-centered instructional practices. These teachers' teaching experience ranged between 14 and 31 years. A possible explanation for this is that some experienced teachers were possibly educated with teacher-centered approaches, and thus might believe that they would learn and teach a topic best exclusively or mostly with teacher-centered approaches. Another possible explanation is that some experienced teachers could have found transitioning to learner-centered approaches challenging as they had been using teacher-centered instruction in the classroom for a long time. Considering that learner-centered instruction is more strongly related to desirable student outcomes than teacher-centered approaches (e.g. Brown, 2003; Roehl, Ready & Shannon, 2013), having teacher-centered beliefs and practices is not regarded as desirable in the Turkish context (Soysal & Radmard, 2017). This highlights the need for a conceptual change in teachers' beliefs, which should in turn affect teachers' in-class practices. As beliefs are not easy to change, it could be quite difficult to make dramatic changes in the beliefs of teachers who hold teacher-centered conceptions of learning. However, one should also note that effective staff development taking teachers' beliefs into consideration could change teachers' beliefs in the desired direction in the long-run. Thus, teachers' beliefs should be taken into consideration when building desired professional development practices, as beliefs affect teaching and learning processes (Kagan, 1992; Pajares, 1992; Wilson, & Cooney, 2003). Keeping up with teachers after staff development practices and providing them with on-the-spot help in pedagogical decision-making processes could increase the sustainability of such staff development measures and support the conceptual change process (Sahin & Yildirim, 2015).

One of the results emerging from the study is that out of 17 teachers who exhibited a misfit between their beliefs about their own learning and their instructional practices, 12 teachers from different subject areas (two teachers of Computer Education and Instructional Technology, two Turkish Language and Literacy teachers, two history teachers, two physics teachers, one maths teacher, one English teacher, one Psychology teacher and one Philosophy teacher) were found to hold learner-centered beliefs about their own learning but teacher-centered instructional practices. This was found to result from external factors such as lack of student interest and motivation, a large class size, lack of teacher motivation, overloaded curricula, limited instructional materials, high-stakes exams, and lack of pedagogical content knowledge, as also discussed in the existing literature as the factors hindering implementation of learner-centered instruction in the classroom (e.g., Botvin, 2004; Cheung, 2012; Gelmez - Burakgazi, 2019; Remillard, 2005). These findings are also consistent with those of Soysal and Radmard (2017) who found that among the barriers the teachers faced during learner-centered instruction in the Turkish classrooms were little or lack of student motivation and lack of instructional resources. These findings may help us understand why teachers do not use constructivism in classrooms even though they themselves favor constructivism to teacher-centered approaches when learning. Considerably more research will need to be conducted to find out why some teachers who hold constructivist-oriented beliefs also use constructivism in their classrooms while others do not.

An interesting finding emerging from the study was that out of 17 teachers who exhibited a misfit between their beliefs about their own learning and instructional practices, five teachers from different subject areas (one teacher of Computer Education and Instructional Technology, one teacher of Turkish Language and Literacy, two English teachers, and one maths teacher) believed that they learn best exclusively or mostly with teacher-centered approaches but nevertheless mostly used learner-centered approaches as part of their instructional practices. The results indicated that this might be because the teachers were required to use learner-centered approaches rather than teacher-centered approaches in Turkey's centralized education system. This seems to be the expected outcome of recent educational reforms. Providing opportunities for these teachers to develop an awareness of their beliefs about their own learning and classroom practices would definitely help them develop better learning and teaching processes, as also explained by Johnson (1994). Further qualitative work is needed to better understand the gratification of teachers who hold teacher-centered beliefs about their own learning but utilize learner-centered instructional practices.

Overall, considering both complementary and contradictory relations between beliefs about one's own learning and instructional practices, the results indicated that although 31 teachers use learner-centered approaches in their instruction, 19 teachers in our study still use teacher-centered approaches in their classrooms despite curriculum-based expectations as a result of the current educational reform. These results indicate that there is a definite need to train and encourage teachers to deploy learner-centered teaching in the secondary school level. As mentioned above, even some teachers who believed that they learn best through constructivism did not transfer these beliefs about their own learning into their educational practice. As teachers' beliefs about their own learning and their students' learning are argued to be intertwined (Brauer & Wilde, 2018), greater efforts are needed to ensure that teachers are provided with enough opportunities to develop learner-centered beliefs and create learner-centered learning environments for their students. This could be done by organizing in-service training programs and equipping teachers with knowledge and skills to better transfer their knowledge and skills into practice by focusing on how to deal with the aforementioned factors (e.g., large class size, lack of student motivation). Another point is that for "professional development experiences to be successful in supporting meaningful change, they must take into account and address teachers' knowledge and beliefs" (Putnam & Borko, 1997, p. 1281).

Although the present study was conducted with secondary school teachers in a national context, it offers valuable insights into the relation between teachers' beliefs about their own learning and instructional practices. This is a topic which has received comparatively little attention in the literature on teacher beliefs. The results contribute to the literature on the relation between teachers' beliefs about their own learning and instructional practices. The existing body of research on teacher change suggests that effective professional development practices can make a difference in helping teachers adopt learner-centered practices in classrooms, resulting in conceptual teacher change (e.g., Sahin & Yildirim, 2015; Tallerico 2005; Wei, Darling-Hammond, Andree, Richardson, & Orphanos, 2009). In line with this, it is suggested to provide well-structured opportunities for teachers to reflect on their beliefs about their own learning and utilize learner-centered instructional practices. Encouraging teachers who have learner-centered beliefs about their own learning to effectively mirror these beliefs into their instructional decisions and teachers who hold teacher-centered beliefs about their own learning to appreciate the importance of learner-centered approaches is crucial to create more effective teaching and learning environments. It is unfortunate that the study did not include classroom observation, which would help us gain a more in-depth understanding of the link between teachers' beliefs about their own learning process and classroom practices. Further research needs to examine more closely the relation between teachers' beliefs about their own learning and the way they teach by triangulating different data collection instruments, such as teacher interviews, classroom observation, and document analysis. A greater focus on why secondary school teachers fail to transfer their learning preferences to their in-class practices and how desirable beliefs and practices are formed through professional learning could produce useful findings and help us understand the link between teachers' pedagogical beliefs and classroom practices.

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