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Araştırma Makalesi / Research Paper

Digital Transformation in Education: The Role of the Online Curriculum Development Course in Teacher Training[1]

Eğitimde Dijital Dönüşüm: Çevrimiçi Program Geliştirme Dersinin Öğretmen Yetiştirmedeki Rolü

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Abstract. This study aims to evaluate the online curriculum development course in teacher training undergraduate programs. In this study, convergent parallel design, one of the mixed method designs, was used and the Congruence-Contingency Evaluation Model created by Stake in 1967 was preferred as the curriculum evaluation model. The research data was collected from 97 pre-service teachers studying at the faculty of education of a state university in the northeast of Turkiye and seven instructors from each geographical region of Turkiye conducting the curriculum development course. The study's qualitative data was collected using pre-service teacher expectation and satisfaction surveys consisting of open-ended questions, instructor interviews, course observation forms, and documents used during the course. Moreover, the Curriculum Development (CD) Achievement Test was used to collect the quantitative data for the study. Research findings show that the curriculum development course in online education is viewed as a beneficial aspect of teacher employment by pre-service teachers. However, the online course presents challenges such as limited method diversity, reduced interaction, and less active participation in teaching. Several solutions have been suggested to tackle the related issues and similar concerns highlighted in the research.
Keywords: *Curriculum development, curriculum evaluation, distance education, teacher education.*

Öz. Bu çalışmanın amacı öğretmen yetiştirme lisans programlarında yer alan çevrimiçi eğitimde program geliştirme dersinin değerlendirilmesidir. Çalışmada karma yöntem tasarımlarından eşzamanlı tasarım kullanılmış ve program değerlendirme modeli olarak Stake tarafından 1967 yılında oluşturulan Uygunluk-Olasılık Değerlendirme Modeli tercih edilmiştir. Araştırma verileri, Türkiye'nin kuzeydoğusundaki bir devlet üniversitesinin eğitim fakültesinde öğrenim gören 97 öğretmen adayından ve Türkiye'nin her bir coğrafi bölgesinden eğitimde program geliştirme dersini yürüten yedi öğretim elemanından toplanmıştır. Araştırmanın nitel verileri, açık uçlu sorulardan oluşan öğretmen adayı beklenti ve memnuniyet anketleri, öğretim elemanı görüşmeleri ve ders gözlem formları, ders sırasında kullanılan dokümanlar kullanılarak toplanmıştır. Çalışmanın nicel verilerini toplamak için ise Program Geliştirme (PG) Başarı Testi kullanılmıştır. Araştırma bulguları, çevrimiçi eğitimde program geliştirme dersinin öğretmen adayları tarafından öğretmen istihdamının faydalı bir yönü olarak görüldüğünü göstermektedir. Bununla birlikte, çevrimiçi ders; sınırlı yöntem çeşitliliği, yetersiz etkileşim ve öğretime daha az aktif katılım gibi zorluklar ortaya çıkarmaktadır. Araştırmada vurgulanan sorunların ve benzer endişelerin üstesinden gelmek için çeşitli çözümler önerilmiştir.
Anahtar Kelimeler: *Program geliştirme, program değerlendirme, uzaktan eğitim, öğretmen eğitimi.*

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Genişletilmiş Özet

Giriş. Planlama, öğretme ve öğrenmenin önemli bir parçasıdır. Program bu noktada önemli bir rol oynamaktadır. Null (2011) bu bağlamda programın önemini "Program eğitimin kalbidir." ifadesiyle vurgulamıştır (p.1). Buna göre program, paydaşların eğitim faaliyetlerini sistematik bir şekilde yürütmelerini sağlayan bir mekanizma olarak tanımlanmaktadır (Büyükkaragöz, 1997; Ertürk, 2013). Bu bağlamda, program geliştirme sürecine kimlerin, hangi süreçlerin ve hangi prosedürlerin dahil olduğunu anlamak kritik önem taşır. Ancak bu programları kimin uyguladığı da aynı derecede önemlidir. Halihazırda, özellikle program okuryazarlığı konusunda, programların uygulayıcıları olarak öğretmenlerin niteliğine ilişkin tartışmalar söz konusudur. Birçok çalışma, programın etkili bir şekilde yürütülmesinde öğretmen niteliğinin önemini vurgulamıştır (LaChausse vd., 2014; Valcke vd., 2007). Bu durum, programın etkili bir şekilde uygulanmasını sağlamak için öğretmenlerin niteliğini artırma ihtiyacına işaret etmektedir.

Bu araştırma, öğretmen adaylarını program okuryazarlığı konusunda geliştirmek üzere tasarlanmış çevrimiçi bir dersin değerlendirmesidir. Bu yönüyle çalışma, öğretim elemanlarının ya da öğretmen adaylarının program yeterliliklerini belirlemeye çalışan araştırmaların ötesine geçmektedir. Eğitimde Program Geliştirme dersi, Türkiye'deki öğretmen yetiştirme programlarında öğretmen adaylarına program okuryazarlığı yeterliklerini kazandırması beklenen temel bir derstir. Bu dersin öğretmen adaylarının öğretimsel ihtiyaçlarını karşılamadaki rolü ve öğretmenlerin çeşitli öğretim programlarındaki uygulayıcı rolü göz önünde bulundurularak değerlendirilmesi anlamlıdır. Bu bağlamda çalışmanın amacı, öğretmen yetiştiren lisans programlarındaki çevrimiçi eğitimde program geliştirme dersini değerlendirmektir. Ayrıca, program kararlarını verme yetki ve sorumluluğuna sahip kurumlara bazı öneriler sunarak ilgili programın etkililiğinin artırılması hedeflenmektedir.

Yöntem. Araştırmada, karma yöntem tasarımlarından biri olan eşzamanlı tasarım kullanılmıştır. Program değerlendirme modeli olarak Stake tarafından geliştirilen Uygunluk-Olasılık Değerlendirme Modeli seçilmiştir. Araştırmanın verileri, Türkiye'nin kuzeydoğusundaki bir devlet üniversitesinde çevrimiçi olarak eğitimde program geliştirme dersini alan 97 öğretmen adayından ve bu dersi yürüten öğretim elemanlarından toplanmıştır. Veri toplama sürecinin ilk aşamasında, öğretmen adaylarına derse yönelik beklenti anketi uygulanmış ve bu ankete 63 gönüllü öğretmen adayı katılmıştır. Daha sonra, 80 öğretmen adayının katılımıyla Program Geliştirme (PG) Başarı Testi ön test olarak gerçekleştirilmiştir. Ayrıca, araştırmanın 14 haftalık süresi boyunca 97 öğretmen adayının bulunduğu çalışma grubunda gözlemler yapılmıştır. Dönem sonunda, PG Başarı Testi son test olarak uygulanmış ve bu teste 77 öğretmen adayı katılmıştır. Son olarak, yarı yapılandırılmış görüşme formu ile dersi yürüten 7 öğretim elemanından ve memnuniyet anketi ile dersi alan 39 öğretmen adayından nitel veriler toplanmıştır.

Bulgular. Araştırma bulgularına göre öğretmen adaylarının ilgili dersi daha çok istihdam kaygısı ile içeriği KPSS'de yer aldığı için tercih etmektedir. Bununla birlikte öğretmen adayları derse yönelik hazırbulunuşluk düzeylerinin düşük olduğu kanaatindedir. Ön test sonuçları ise bu bulguyu tam olarak desteklememektedir. Öğretmen adaylarının büyük çoğunluğu dersi başarılı bulduklarını, dersin hedef ve içeriklerinin beklentilerini karşıladığını ifade etmişlerdir. Ayrıca öğretmen adayları dersin yürütüldüğü çevrimiçi platformu başarılı olarak değerlendirmektedir. Bununla birlikte çevrimiçi ders, zaman yönetimi ve materyal-kaynak çeşitliliği açısından olumlu görülse de iletişim, etkileşim ve öğretim

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yöntemi çeşitliliği açısından bir sınırlılık olarak ele alınmaktadır. Başarı testinin son uygulaması ise öğretmen adaylarının testte ölçülmek istenen kazanımların büyük bir kısmına ulaştığını göstermektedir. Öğretmen adayları da ders sonunda beklentilerini büyük ölçüde karşıladığını belirtmişlerdir. Fakat öğretmen adaylarının aksine dersi yürüten öğretim elemanları öğrenci sayısının olması gerekenden fazla olduğunu, ders süresinin, teknolojik imkanların ve kaynak ve materyallerin yetersiz olduğunu ifade etmişlerdir. Ayrıca öğretim elemanları, ders içeriğinin amacına hizmet eder nitelikte olmadığını düşünmektedirler. Bu bağlamda içeriklerin öğretmenlik mesleği için gereğinden fazla kapsamlı olduğunu ve bu derste daha çok öğretimde planlama becerisinin kazandırılması gerektiğini belirtmişlerdir.

Tartışma ve Sonuç. Öğretmen adaylarının dersi tercih etmelerinin başlıca nedenleri, ders içeriğinin öğretmen istihdamında kullanılan sınavlarda yer alması ve mesleki gelişim sağlama isteğidir. Farklı çalışmalarda da benzer sonuçları görmek mümkündür (Akıncı, 2021; Güven & Dak, 2017). Öğretim elemanları, öğretmen adaylarının aksine ders içeriklerinin olması gerekenden daha yoğun ve karmaşık olduğunu düşünmektedir. Sadece %5,8 gibi sınırlı sayıda öğretmen adayının bu dersten program okuryazarlığı beklentisi bulunmaktadır. Bu durum, dersin amacından farklı bir anlayışla tercih edildiğini göstermekte, dersi seçen öğretmen adaylarının çoğunun mesleki gelişimden ziyade istihdama odaklandığına işaret etmektedir. Ayrıca hem temel bir öğretmen yeterliliği olan hem de öğretmenlere istihdam sürecinde kullanacakları yeterlilikleri kazandırması beklenen böyle bir dersin nasıl seçmeli olduğu tartışmaya açıktır.

Öğretmen adayları derste kullanılan öğretim yöntem ve tekniklerini başarılı bulurken, öğretim elemanları uygulanan yöntem ve tekniklerin kullanımının sınırlı olduğunu düşünmektedir. Katılımcılar, uzaktan eğitim süreçlerini bu çeşitliliği sınırlayan temel faktör olarak görmektedir. Farklı çalışmalarda da benzer sonuçlara ulaşılmıştır (Atik Kara ve Sağlam, 2014; Koçyiğit ve Eğmir, 2019). Çevrimiçi öğretim süreçlerinin uygulanmasıyla sınırlandığı belirtilen bir diğer konu ise etkileşim ve katılımdır. Ayrıca öğretim elemanlarının aksine öğretmen adayları genellikle derste kullanılan araç, kaynak ve materyalleri ve ders süresini yeterli bulmaktadır. Aynı zamanda sınıf mevcudunun uzaktan eğitimi etkileyen bir süreç olmadığına inanmaktadırlar.

Sonuç olarak, çevrimiçi eğitimde program geliştirme dersi öğretmen adayları tarafından öğretmen istihdamının faydalı bir yönü olarak görülmektedir. Ancak, derste verilen teorik bilgilerin pratik uygulamaya ne ölçüde dönüşeceğini göz önünde bulundurmak önemlidir. Dersin çevrimiçi olarak yürütülmesi, sınırlı yöntem çeşitliliği, daha az etkileşim ve öğretime daha az aktif katılım gibi zorluklar ortaya çıkarmaktadır. Bununla birlikte, KPSS'de başarı elde etmek gibi mesleki gelişimin dışında amaçlarla derse kaydolan bireylerin farklı biçimlerde de hedeflerine ulaşabilecekleri açıktır. Burada üzerinde durulması gereken temel konu, program okuryazarlığının önemini vurgulayarak, programın hedeflerini öğrencilerin hedefleriyle uyumlu hale getirme ihtiyacıdır.

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Introduction

It is essential to adopt a systematic approach when planning any task, considering factors such as who will perform the work, where it will be done, when it will be completed, how it will be carried out, and under what conditions it will be executed. In fact, this action allows us to call our work "systematic." Planning is also an essential part of teaching and learning. The curriculum plays a significant role at this point. Null (2011) emphasizes the importance of the curriculum in this context using the expression, "Curriculum is the heart of education." (p.1). Accordingly, the curriculum is defined as a mechanism for ensuring stakeholders carry out educational activities systematically (Büyükkaragöz, 1997; Ertürk, 2013). Based on this definition, it is plausible to assert that the curriculum facilitates the definition of education as a system. Thus, the quality of the processes expressed as "the education system" depends on the curriculum and the curriculum development processes. A curriculum development process is defined as ensuring that objectives, contents, teaching activities, and evaluations are valid, applicable, efficient, and effective based on changing needs and scientific research processes (Null, 2011; Ornstein & Hunkins, 2018). In this regard, it is critical to understand who, what processes, and what procedures are involved in curriculum development. However, who implements these curricula is equally critical. Currently, there is room for debate on the effectiveness of teachers as curriculum practitioners, particularly regarding curriculum literacy. Several studies have highlighted the significance of teacher quality in effectively maintaining curricula (LaChausse et al., 2014; Valcke et al., 2007). This issue points to the need to improve teachers' quality to ensure effective curriculum implementation. Similarly, effective teacher training programs should be developed to improve the quality of teaching.

Curriculum literacy as a teacher qualification

Teachers, as implementers, are among the curriculum's primary stakeholders, necessitating them to have an acceptable level of curriculum knowledge and competence. Especially in the last 50 years, curriculum knowledge and competencies of teachers, also known as curriculum literacy, have been researched in this context (Ariav, 1991; Behar & George, 2013; Leach, 2002; Toomey, 1977). In addition to scientific research, institutions authorized and responsible for teacher standards consider curriculum literacy among fundamental teacher competencies (DfE. UK, 2021; DfE. US, 2021; ISO, 2021; QCT, 2021). Curriculum literacy is also one of the prerequisites for becoming a teacher in the region where the research was conducted. In particular, the Ministry of National Education (MNE) prioritizes instructional planning as the first issue regarding teacher competencies (MNE, 2017).

Since the teaching profession gained official status in Turkiye in 1924, various institutions have trained teachers until the establishment of education faculties (Kavcar, 2002; Yılman, 2006). As of 1982, teacher training institutions were grouped under the faculties of education offering four-year degrees, and Law No. 1739 of 1973 stipulated that all teachers must be graduates of higher education (Kilimci, 2011). After the responsibility for teacher education was transferred to the faculties of education, the Council of Higher Education (CHE) established a structure that would allow undergraduate teaching activities in the Department of Educational Sciences' sub-fields, and Curriculum Development became one of these undergraduate programs during this period (CHE,

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2007). However, following CHE's regulation of teacher training programs in 1997, educational sciences undergraduate programs were closed because they did not have a specific employment area (CHE, 1998a). Today, the Department of Curriculum and Instruction in Turkiye contributes to teacher training undergraduate programs in the conduct of teaching profession courses such as *curriculum development* and *teaching principles and methods* while continuing its postgraduate education and research activities within the Department of Educational Sciences (CHE, 2007; CHE, 2018).

Moreover, following the stipulation that teachers must be higher education graduates, CHE added various elective and compulsory courses in the curriculum development field in teacher training programs. These courses are curriculum and teaching methods, general curriculum, planning and evaluation, and curriculum development, respectively (MNE, 1980; CHE, 1998b, 2007, 2015, 2018). These courses must provide pre-service teachers with curriculum literacy because while teachers in Turkiye work in curriculum study groups during curriculum development, they also play an active role in the planning processes of teaching activities at the beginning of each academic year (Demirel, 2014). In addition, each teacher must plan and conduct their lessons under the curricula to ensure integrity in teaching activities (Karabacak, 2018). At the same time, the Measurement, Selection, and Placement Center (MSPC) includes the field of curriculum development in the Public Personnel Selection Examination (PPSE), which is used in the employment of teachers (MSPC, 2021). All these cases draw attention to the importance of teaching activities to be carried out on curriculum development, either online or face-to-face.

Curriculum and distance education

Besides teacher proficiency, we may consider curriculum literacy to be a quality expected of all lecturers. Distance education follows the same rules (Thach & Murphy, 1995; Winston & Fields, 2003). The history of the curriculum demonstrates that we have some expertise in developing, implementing, and evaluating curricula in face-to-face teaching and learning activities (Franklin, 1977; Tanner, 1982). However, distance education programs have become more popular, especially with the COVID-19 process. After the 2000s, until the pandemic, there were studies on distance education programs and competencies teachers are expected to acquire in this context (Darabi et al., 2006; Rovai & Downey, 2010; Williams, 2003). Of course, these studies were conducted not because distance education might become unavoidable one day due to a global health crisis. For this reason, it would be fair to say that these studies do not meet the curricular requirements of distance education processes. In the pandemic, studies in this context mainly focused on issues such as teacher competencies in distance education or the effectiveness of distance education programs (Aslan et al., 2021; Darabi et al., 2006; Darazha et al., 2021). Therefore, research on teachers' distance education curriculum literacy still needs to be improved in diversity.

Some studies handled teacher training programs with different dimensions and aimed to evaluate the quality of these programs (Akıncı & Köse, 2022; Bastian et al., 2018; Darling-Hammond et al., 2010; Goldhaber et al., 2013). However, studies dealing with distance education programs, especially with the curricular competencies of instructors, may be worthwhile in increasing the quality

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of online programs and lecturers and developing new curricula in specific infrastructures. We can build this infrastructure with more efficient and comprehensive data collection processes that will reveal the quality of the curricula. One of the best ways to accomplish this is to evaluate the curricula by using formal procedures that prospective teachers need to complete to become curriculum-literate because it is essential to conduct systematic, accurate, and reliable curriculum evaluation studies with a precise aim, place, time, and interlocutor to decide on the success and future of a curriculum (Fitzpatrick et al., 2011; Ornstein & Hunkins, 2018). Curriculum evaluation is defined as determining the extent to which a designed and implemented curriculum meets the required features by using scientific research processes and making various decisions about the relevant curriculum (Madaus et al., 2000; Mertens & Wilson, 2019; Stufflebeam & Coryn, 2014).

This research is a curriculum evaluation of an online course designed to train prospective teachers on curricular literacy. In this regard, the study goes beyond research that attempts to determine the curriculum competencies of instructors or pre-service teachers. *Curriculum development* is an introductory course in teacher training programs in Turkiye that is expected to provide pre-service teachers with competencies in curriculum literacy because teacher training programs play a critical role in training teachers who are practitioners of different curricula (Bullough, 1992). It is meaningful to evaluate the curriculum development course, considering its role in addressing the instructional needs of prospective teachers and the practitioner role of teachers in various curricula.

Aim of the study

This study aims to evaluate the online *curriculum development* course in teacher training undergraduate programs. It also aims to increase the effectiveness of the related curriculum by providing some recommendations to institutions with the authority and responsibility to make curriculum decisions. In line with these purposes, answers were sought to the following questions:

1. Does the *curriculum development* course have the qualities of an effective curriculum in the "antecedents" dimension?
2. Does the *curriculum development* course have the qualities of an effective curriculum in the "transactions" dimension?
3. Does the *curriculum development* course have the qualities of an effective curriculum in the "outcomes" dimension?

Method

Research design and curriculum evaluation procedures

In this study, *convergent parallel design*, one of the mixed method designs, was used. A mixed-method research design uses qualitative and quantitative data collection, analysis, and interpretation techniques to solve the research problem (Creswell & Plano-Clark, 2018). Similarly, a convergent

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parallel design aims to collect qualitative and quantitative data over the same period, combine the data, compare the results, and explain the differences (Creswell, 2015).

The Congruence-Contingency Evaluation Model created by Stake in 1967 was preferred as the curriculum evaluation model in the study. The Congruence-Contingency Model aims to make curriculum evaluation processes understandable by conceptualizing them in terms of antecedents, transactions, and outputs (Stake, 1967). The model's advantage over the others is that it covers both the intended and unintended outcomes of the curriculum (Stufflebeam, 1983; Stufflebeam & Coryn, 2014). The primary goal of the Congruence-Contingency Model is to evaluate the state of the curriculum and decide its future. Stake (1967) defined these dimensions in various aspects with an evaluation matrix. According to this matrix, curriculum evaluation occurs in the model as a process of description and judgment in the light of rationale. In the descriptive process, the evaluators determine the congruence between intents and observations and the connection among antecedents, transactions, and outputs (Yüksel & Sağlam, 2014). Furthermore, they use previously determined standards (standards of excellence) or the relative standards of different curricula to judge the curriculum (Stake, 1967).

Participant-oriented curriculum evaluations such as the Congruence-Contingency Model are open to criticism because of the difficulty of accurately and objectively analyzing and interpreting the intensive information gathered from different stakeholders (Fitzpatrick et al., 2011). Furthermore, these models use qualitative methods that sacrifice some measurement precision to maximize the usability of the results (Stake, 2011). For this reason, the descriptive matrix of the Congruence-Contingency Model was used while evaluating the current state of the *curriculum development* course in terms of antecedents, transactions, and outputs. In addition, an achievement test was used to strengthen the compromising aspect of the model in measurement and to determine the curriculum literacy levels of pre-service teachers with a standard measurement tool. Thus, we tried to take measures in terms of validity, reliability, time management, cost, workload, and data density by not collecting unnecessary data for a transaction for which we have no decision authority.

Data collection tools

The study's qualitative data was collected using pre-service teacher expectation and satisfaction surveys consisting of open-ended questions, instructor interviews, and course observation forms. The expectation survey had questions about the pre-service teachers' expectations of the course, their reasons for choosing it, and their preliminary information about it. The satisfaction survey included questions about how much the curriculum development course met the expectations regarding its objectives, contents, teaching activities, and evaluation elements and how much it contributed to the teaching profession. The semi-structured lecturer interview form included questions to evaluate the curriculum of the relevant course in terms of antecedents, transactions, and outputs. During the development of the relevant interview and survey forms, expert opinions were received from two instructors who are experts in the field of *Curriculum and Instruction* in terms of the structure and scope of the items. In addition, the observation form used in the research was prepared

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by Akıncı (2021) for observing the teaching activities carried out with distance education. This form includes the following observation variables:

1. The design of the distance education platform and the opportunities it offers
2. Student-teacher interaction
3. Strategies, approaches, methods, and techniques
4. Tools and materials
5. Measurement and evaluation techniques (p. 107)

The relevant observation form was developed to allow one to take reflective notes alongside the observation variables above. With these features, the observation form was semi-structured (Creswell, 2009). In addition, documents such as the syllabus, presentation, and exam used during the course were also examined. Moreover, the Curriculum Development (CD) Achievement Test was used to collect the quantitative data for the study. While developing the relevant test, the framework contents of the curriculum development course in the 2018 teacher training undergraduate programs in Turkiye were considered. In this context, the objectives in the syllabus of the different instructors conducting the relevant course were examined. A specifications table was prepared by choosing 11 goals and nine subject headings corresponding to the mentioned contents. A draft achievement test was created, including 25 multiple-choice questions with five options, at least one, at most three questions for each objective, and at least two, at most four questions for each topic based on the content density. The draft test was applied to 138 pre-service teachers from different departments who had taken the curriculum development course in the previous semester. 5 of the test results were excluded from the item analysis because they were filled in sloppy.

Table 1.
Item Statistics on Achievement Test Pre-Application.

n	$\overline{X}$	SS	Skewness- Kurtosis	Item Difficulty	Item Discrimination	KR20
133	54.2	4,20	0,246, -0,069	0,54	0,37	0,73

Before the item analysis of the draft achievement test, it was checked whether the scores obtained showed a normal distribution. In this context, since the skewness and kurtosis values were between +1 and -1, that is, the scores did not show a significant deviation from the normal distribution, the item analysis of the test was performed by considering the normality assumption (Büyüköztürk, 2014; Tabachnick & Fidell, 2013). According to Güler (2018), the difficulty level of the items in an achievement test is around 0.50. The item discrimination is 0.30 and above, indicating that the relevant values are reasonable. As a result of the pre-application of the achievement test, it was observed that the item discrimination levels ranged from 0.13 to 0.79. Atılgan (2018) stated that the items with a discrimination score of 0.20 should be removed from the test, and the items between 0.20 and 0.30 should be corrected. Accordingly, one item with a discrimination level below 0.20 was removed, and five items with a relevant value between 0.20 and 0.29 were corrected and included in the test. As a result of these procedures, a 24-item achievement test with five options was developed, with an item difficulty level of 0.54, an item discrimination level of 0.37, and a KR20 reliability coefficient of 0.73.

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Participants, data collection and analysis

The research data was collected from 97 pre-service teachers studying at the faculty of education of a state university in the northeast of Turkiye and seven instructors from each geographical region of Turkiye conducting the curriculum development course. Since any samples were taken in this process, and it was aimed to collect data from all the students who took the curriculum development course during the period when the study was conducted, the group from which the data was collected was considered as the study group.

In the first stage of the data collection process, an expectation survey was applied to the 63 volunteer pre-service teachers. Afterward, the developed CD Achievement Test was applied to 80 pre-service teachers as a pre-test. In addition, 97 participants were observed during the 14 weeks when the course was conducted. In these processes, the *observer had a participant* role. In this observer role, the participants know the researcher's existence, but it is assumed that the participant does not affect the practice (Creswell, 2009). Observations of the related course through distance education platforms also contributed to the role of the observer as a participant. At the end of the term, the CD Achievement Test was applied as a post-test to 77 pre-service teachers. Finally, the data was collected from 39 pre-service teachers through a satisfaction survey and the instructors conducting the course through a semi-structured interview.

Tablo 2.
Participant Demographics.

	Expectation Survey				Satisfaction Survey			
		Gender				Gender		
Department	**Student N**	**Female**	**%**	**Male**	**%**	**Student N**	**Female**	**%**	**Male**	**%**
Primary School Teaching	26	23		3		11	9		2	
Mathematics Teaching	14	5		9		12	7		5	
Social Studies Teaching	8	3		5		4	4		-	
Guidance and Psychological Counseling	7	6		1		6	6		-	
Turkish Language Teaching	5	5		-		4	3		1	
Science Teaching	2	2		-		2	2			
Visual Arts Teaching	1	1		-		-	-		-	
Total	**63**	**45**		**18**		**39**	**31**		**8**	

	Achievement Test Pre-test				Achievement Test Post-test			
		Gender				Gender		
Department	**Student N**	**Female**	**%**	**Male**	**%**	**Student N**	**Female**	**%**	**Male**	**%**
Primary School Teaching	31	25		6		30	24		6	
Mathematics Teaching	16	6		10		16	7		9	
Social Studies Teaching	12	5		7		11	4		7	
Guidance and Psychological Counseling	11	7		4		9	6		3	
Turkish Language Teaching	5	3		2		7	4		3	
Science Teaching	4	2		2		3	2		1	
Visual Arts Teaching	1	1		-		1	1		-	
Total	**80**	**49**		**31**		**77**	**48**		**29**	

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The qualitative data of the research were analyzed using content analysis by the Nvivo 10 software. Since the data obtained from the EPG Achievement Test did not show a significant deviation from the normal distribution, various parametric tests were applied.

Findings

Findings regarding the antecedents dimension of the curriculum development course

As the antecedents of the curriculum, the reasons for the pre-service teachers' preference for the course, their expectations, their readiness, and the objectives and contents of the curriculum were considered. In this context, students' views on the primary factors in choosing the course, their expectations, and their readiness for the course are presented below.

Table 3.
Student Views on Some Antecedents of the Curriculum.

Preference Reasons	f	%	Expectations	f	%	Readiness	f	%
-PPSE and employment	37	56,06	-Professional development	26	37,68	-No prior knowledge	41	68,33
-Professional development	17	25,76	-PPSE and employment	23	33,33	-PPSE books	8	13,33
-Insufficient course quota	3	4,55	-Effective teaching environment	11	15,94	-PPSE Internet resources	6	10,00
-Curiosity and interest	3	4,55	-Curriculum literacy	4	5,80	-Other undergraduate courses	4	6,67
-Sense of obligation	3	4,55	-Self-improvement	3	4,35	-No answer	1	1,67
-No answer	3	4,55	-Technological opportunities	2	2,90			
Total	**66**	**100**	**Total**	**69**	**100**	**Total**	**60**	**100**

According to the pre-service teachers, the essential factor in choosing the course is the Public Personnel Selection Examination (PPSE), used in the employment process (56%). Following this issue, professional development is among the reasons for choosing the course. However, professional development (37%) is the focus of pre-service teachers' expectations for the course, and employment expectation is in second place. In addition, factors other than student expectations, such as lack of quota in other elective courses or sense of obligation, were also influential in the course's preference, with a total rate of 13.65. Apart from these, pre-service teachers have limited curriculum literacy and personal development expectations from the course. Moreover, in the teaching process, the pre-service teachers stated they had expectations for an effective teaching environment and competencies in teaching technologies.

A significant number of pre-service teachers (68%) stated that they had no prior knowledge of curriculum development. Pre-service teachers with a certain amount of knowledge of this subject indicated that they acquired this information due to employment concerns. Pre-service teachers' other courses are also considered effective in developing their curriculum literacy infrastructure, with a low

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rate of 6.7%. In the interviews, few pre-service teachers avoided answering questions on topics such as the reason for selecting the course or readiness.

At the end of the implementation, the opinions of the prospective teachers on the other antecedents of the curriculum, such as the objectives and contents, were also received. The reason it was performed after the implementation of the curriculum was the assumption that these students had not been curriculum literate yet.

Table 4.
Opinions of Pre-service Teachers on the Objectives and Contents of the Curriculum.

Objectives	f	%	Contents	f	%
-It met my expectations	22	50,00	-It met my expectations	21	51,22
-Compliant with PPSE	8	18,18	-Intense and complicated	6	14,63
-Over my expectations	7	15,91	-Clear and understandable	5	12,20
-Complicated	3	6,82	-Over my expectations	3	7,32
-Concrete	2	4,55	-Compliant with PPSE	3	7,32
-Did not meet my expectations	2	4,55	-No answer	3	7,32
Total	**44**	**100**	**Total**	**41**	**100**

Approximately 50% of the prospective teachers thought that the objectives and contents of the course met their expectations. In fact, few students stated that the course met more than their expectations. PPSE is among the issues that draw attention at this point as well. In this context, some pre-service teachers emphasized that the objectives and contents of the course were compatible with PPSE. On the other hand, a small number of pre-service teachers thought that the objectives were complex and did not meet their expectations. In addition, 14% of pre-service teachers thought the curriculum contents were intense and complex, while a similar percentage of participants believed the contents were clear and understandable.

Table 5.
Instructor's Views on the Antecedents of the Curriculum.

Student Features	f	%	Curriculum Structure	f	%
-PPSE expectations	6	35,29	-Dense contents	6	35,29
-Low student motivation	5	29,41	-Complicated contents	3	17,65
-Low Student readiness	4	23,53	-Appropriate contents	3	17,65
-High student motivation	2	11,76	-Appropriate objectives	3	17,65
			-Central curriculum problem	2	11,76
Total	**17**	**100**	**Total**	**17**	**100**

In the same way as the pre-service teachers, the instructors also stated that the students had expectations from the course for PPSE. While some instructors believed that student motivation was low, some thought the opposite. On the other hand, some lecturers thought that student readiness was low. In addition, while some interviewees expressed the curriculum's contents as intense and abstract, some lecturers thought the objectives and contents were appropriate. Some instructors stated that the central curriculum understanding was problematic, albeit in a small number.

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Findings regarding the transactions dimension of the curriculum development course

According to Stake's approach, a curriculum has many transactions. In this context, the distance education platform, communication tools, teaching methods and techniques, sources and materials, and measurement and evaluation methods used in the teaching process were considered as the curriculum's transactions. In the lessons, various findings regarding these variables were observed.

Table 6.
Curriculum Development Course, Observation Findings.

Distance Education Platform	Communication tools	Teaching Methods and Techniques	Sources and Materials	Measurement and Evaluation Methods
-Google Meet -Google Classroom -Microsoft Teams	-Camera -Microphone -Message box	-Lecturing -Question-answer -Discussion -Case method	-Coursebook -PowerPoint presentations -Digital sources -Google forms	-Homework -Examinations -Question-answer method -Quizzes

Google and Microsoft applications were widely used platforms in distance education processes. These systems enabled individuals to communicate via voice, video, or writing. While lecture, question-answer, and case methods were used in the teaching process, they also conducted studies to develop curricula and syllabi in some courses. Moreover, they did redaction and correction practices on some previously developed curriculum elements. In addition to the textbook, various digital resources were used in the lessons. Instructors preferred the question-answer method and quizzes during in-class and end-of-course assessment processes. In addition, they preferred homework and exams for grading students. Besides the variables considered in the observations, opinions on interaction and participation, course duration, and class population were also received in the transactions dimension of the curriculum.

Table 7.
Student Views on Some Transactions of the Curriculum.

Teaching Methods and Techniques	f	%	Interaction and Participation	f	%
-Effective	17	47,22	-Distance education limits	15	31,91
-Q&A successful	8	22,22	-Sufficient participation	8	17,02
-Distance education limits	5	13,89	-Insufficient participation	8	17,02
-Applications were successful	4	11,11	-Positive interaction	6	12,77
-No Variety	2	5,56	-Connection issues	4	8,51
			-Teacher-centered	3	6,38
			-I hesitated to communicate	3	6,38
Total	**36**	**100**	**Total**	**47**	**100**

Sources and Materials	f	%	Course Duration	f	%	Course Population	f	%

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-Met my expectation	17	45,95	-Sufficient	22	78,57	-No effect	13	44,83
-Presentations were successful	9	24,32	-Insufficient	4	14,29	-Crowded	9	31,03
-Resources were limited	7	18,92	-More than needed	2	7,14	-Ideal	7	24,14
-Responsive	4	10,81						
Total	**37**	**100**	**Total**	**28**	**100**	**Total**	**29**	**100**

45% of pre-service teachers found the teaching methods and techniques in the course helpful. In particular, question-answer activities and curriculum development practices attracted attention in this respect. On the other hand, some pre-service teachers stated that distance education limited teaching methods and techniques, and there was no diversity in this regard. Another issue that was emphasized as limiting distance education was interaction and participation. While some pre-service teachers emphasized that participation was sufficient with a rate of 17%, the same rate of participants had the opposite opinion. In addition, some participants thought the interaction established in the distance education processes was positive. Internet connection problems, teacher-centered approach, and negative student attitudes were expressed as negative situations in interaction and participation.

According to pre-service teachers, the resources and materials used in the classes were mainly successful. A few pre-service teachers thought that resources and materials could have been improved. The course duration was thought to be adequate to a great extent. A significant part of the participants considered the class population a situation that does not positively or negatively affect distance education. Again, a significant group thought that the classes were crowded. Instructors also had opinions about the transactions of the curriculum.

Table 8.
Instructor's Views on the Transactions of the Curriculum.

Transactions	f	%
Insufficient practice	6	24,00
Distance education limits	4	16,00
Limited methods and techniques	3	12,00
Classes are crowded	3	12,00
Insufficient course time	3	12,00
Insufficient technological equipment	3	12,00
Insufficient resources and materials	3	12,00
Total	**25**	**100**

Instructors pointed out that applied education in the curriculum needed to be improved. They thought that distance education was a limiting factor in teaching activities. At this point, the participants drew attention to the need for teaching methods and techniques, course duration, technological equipment, and resource-material. In addition, instructors pointed out that the number of students was higher in online courses, unlike pre-service teachers.

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Findings regarding the outcomes dimension of the curriculum development course

Measurement and evaluation processes, whether the course fulfills its purpose and meets expectations, and the lecturers' suggestions have been included as outcomes of the curriculum.

Table 9.
Student Views on Some Outcomes of the Curriculum.

Measurement and Evaluation	f	%	Meeting Expectations and Needs	f	%
Successful	13	35,14	Acquired professional qualification	17	44,74
Q&A is successful	6	16,22	Acquired planning skills	9	23,68
Suitable for content	5	13,51	Not suitable for my field	6	15,79
Limited	4	10,81	Suitable for my field	5	13,16
Fair	3	8,11	No idea	1	2,63
Pre-test is successful	2	5,41			
Not appropriate	2	5,41			
No idea	2	5,41			
Total	**37**	**100**	**Total**	**38**	**100**

Student opinions show that the curriculum development course has many positive characteristics in terms of outcomes. These characteristics are related to the measurement and evaluation processes and the curriculum to meet instructional needs. However, some pre-service teachers, albeit a small number, thought that the course needed to be more varied in measurement and evaluation, and those appropriate methods were not used in this context. In addition, the fact that the measurement and evaluation course is not suitable for different teaching fields is among the subjects criticized by the participants.

Table 10.
Instructor's Views and Suggestions on the Outcomes of the Curriculum.

Outcomes	f	%	Suggestions	f	%
The lesson serves its purpose	6	75,00	Application possibilities should be increased	6	27,27
The lesson does not serve its purpose	2	25,00	Time/credit should be increased	6	27,27
			A field expert should conduct the course.	3	13,64
			The course must be compulsory	3	13,64
			Content must be domain-specific	2	9,09
			There must be an active learning environment	2	9,09
Total	**8**	**100,**	**Total**	**22**	**100**

The instructors were asked whether the curriculum development course served its purpose and what their suggestions for making it more effective were. They think that the course mostly (75%) serves its purpose. In addition, suggestions such as making the courses practical, increasing the course hours, conducting them by field experts, and making the course compulsory are noteworthy.

In addition to the participants' views, an achievement test was also applied to understand how much the course serves the objectives. Here, tests in the form of a pre-test and post-test were

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conducted to reveal both the students' preliminary knowledge of one of the subjects criticized by the participants and the extent to which cognitive objectives were achieved at the end of the lesson.

Table 11.
Independent Samples t-Test Results.

Variables	n	$\bar{X}$	Ss	sd	T	p
Pre-test	80	38,55	13,35	156	11,84	,000
Post-test	78	63,89	13,55			

The scores of the pre-service teachers from the CD Achievement Test differed significantly in terms of the pretest-posttest variable t (156) = 11.84. p<.05. However, the average pre-test scores (38.55) show that students' prior knowledge is not as inadequate as they are criticized. In addition, the average of the post-test scores (63,89) may be an indicator of the existence of many students who have problems reaching the objectives of the course.

Discussion, Conclusion and Suggestions

The *curriculum development* course is a basic professional knowledge course that aims to provide pre-service teachers with planning and curriculum literacy skills in teaching. The main reasons why pre-service teachers prefer the course are that the course content is included in the exams used in teacher employment and the desire to provide professional development. There are similar findings in different studies on this subject (Akıncı, 2021; Güven & Dak, 2017). Pre-service teachers have also expressed their expectations for the course in this context. In particular, they believe that the objectives and contents of the course meet these expectations.

Contrary to the pre-service teachers, the instructors think that the course contents are more intense and complex than they should be. A limited number of pre-service teachers, such as only 5.8%, have expectations of curriculum literacy from this course. This situation shows that the course was preferred with a different understanding than its intended purpose and indicates that most pre-service teachers who choose the course focus on employment rather than professional development. In addition, it is open to debate how such a course, which is both an essential teacher qualification and expected to provide teachers with the competencies to be used in the employment process, is elective.

The students' readiness levels for the lesson were evaluated as limited by both the pre-service teachers and the instructors. In fact, 68.33% of the students stated they had no prior knowledge about the course. Yenen & Durmaz (2019) also concluded in their study that the readiness level of pre-service teachers for the teaching profession was low. Contrary to the participant's views on the pre-service teachers' readiness, the pre-test scores for the achievement test are 38.55. This situation is significantly inconsistent with the "I have no prior knowledge" view of pre-service teachers. This finding can be interpreted as pre-service teachers needing awareness of their teaching profession knowledge competencies.

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While the pre-service teachers think the teaching methods and techniques used in the course are successful, the instructors believe that the use of applied methods and techniques is limited. Participants considered distance education processes as the main factor limiting this diversity. The issue of insufficient emphasis on the subject of teaching profession knowledge in teacher education and the inability to transfer the theoretical knowledge learned in the course to professional applications has been expressed in various studies (Atik Kara & Sağlam, 2014; Koçyiğit & Eğmir, 2019). Another issue that is stated to be limited by implementing online teaching processes is interaction and participation. Kaysi & Aydemir (2017) concluded that distance education processes negatively affected students' communication with each other and the instructor. In addition, Durak et al. (2020) drew attention to the importance of face-to-face experiences for effective learning in distance education. Pre-service teachers generally find the tools, resources, and materials used in class and the lesson duration sufficient. At the same time, they believe that class population is not a process that affects distance education.

Contrary to the pre-service teachers, the instructors think that the course durations should be increased and the number of students is more than it should be. The issue of insufficient duration of teaching profession knowledge courses has also been criticized in various studies (Ünver, 2016; Yapucuoğlu & Gündoğdu, 2020). This situation indicates different evaluations in the context of the expectations of the people conducting the course and the individuals following it. Perhaps the virtual teaching environment may prevent various problems from being noticed to the same extent by all stakeholders. In addition, the high number of students means a workload for instructors in teaching and evaluation, although the courses are not face-to-face.

The use of appropriate and diverse teaching methods and techniques is essential for effectively implementing distance education (Gülbahar & Karataş, 2016). In this context, the preferred platforms for conducting online courses have predominantly been Google and Microsoft applications. These platforms have been highly sought after for both distance education and online conferences in recent years (Hurst, 2020) and were among Turkiye's most preferred distance education platforms during the COVID-19 pandemic (Koçoğlu, 2020). The most used teaching methods in online classes include lecturing, question-and-answer, discussions, and case methods. According to Özkan & Güvendir (2013), the three most desired teaching methods for pre-service teachers are case method, demonstrations, and discussions, respectively. However, instructors did not prefer the demonstration method in observed courses, likely due to the challenges of conducting practical exercises in distance education settings and the limited class time available.

Pre-service teachers have primarily positive opinions about the assessment processes. Similarly, students and instructors think the course meets their expectations and needs and serves its purpose. However, although there is a significant difference between pre-test and post-test scores, the latter demonstrates that a considerable proportion of pre-service teachers have not achieved the competencies expected from the course. Atik Kara & Sağlam (2014) stated that teachers could only reach about half of the performance indicators they need for pre-service professional knowledge courses and vocational competencies. In her study aimed at determining the level of knowledge of pre-service teachers on the subject, Tan Şişman (2021) revealed that pre-service teachers had limited and superficial knowledge of curriculum development.

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Moreover, Gürkan (2019) found that pre-service teachers have not sufficiently structured concepts such as curricula, instruction, instructional planning, and instructional evaluation in their minds. Despite being theoretically sound, this can be interpreted as the course being insufficient in serving its purpose in practice. A few students have expressed that the course is unsuitable for teacher training fields. In addition, instructors have made suggestions such as practically conducting the course, increasing class hours, making the course compulsory in teacher training programs, and having experts in curriculum development lead the course instead of any instructor in the related programs.

To conclude, the curriculum development course in online education is viewed as a beneficial aspect of teacher employment by pre-service teachers. However, it is essential to consider the extent to which the theoretical information provided in the course will translate to practical application. Conducting the course online presents challenges such as limited method diversity, reduced interaction, and less active participation in teaching. Nevertheless, it is evident that individuals who enroll in the course for purposes other than professional development, such as achieving success in PPSE, can achieve their goals in other ways. The main issue that needs to be addressed is the need to align the program's objectives with those of the students, highlighting the importance of curriculum literacy. It appears that pre-service teachers may lack sufficient curriculum literacy regarding their undergraduate teacher training programs and the programs they will implement in the future. To address these issues, we propose the following suggestions that may contribute to a solution:

- The development and implementation of curricula should consider institutional characteristics and differences, such as the number of students, teaching staff, and available opportunities.
- The curriculum objectives and contents should be organized according to specific teaching fields, and student characteristics, such as readiness, interest, attitude, and motivation, should be considered to address pre-service teachers' prejudices in different teaching fields.
- Admission of students into teacher training programs should align with the needs of the education system to address issues related to readiness and employment, focusing on the quality of teachers over quantity.
- To address time constraints related to practical training, education faculties and MNE should increase collaboration and cooperation and conduct practical training at appropriate times.
- The variety of teaching methods and techniques should be increased to promote communication, interaction, attendance, and participation in distance and face-to-face courses.
- The number of curriculum evaluation studies for teacher training programs should be increased, and CHE and MNE should assume greater responsibility in this process.

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References

Akıncı, M. (2021). *Eğitimde ölçme ve değerlendirme dersi programının değerlendirilmesi* (Doctoral dissertation, Akdeniz University). CHE National Thesis Center https://tez.yok.gov.tr/UlusalTezMerkezi

Akıncı, M., & Köse, E. (2022). A meta-evaluation research on teacher training programs in Turkiye. *International Journal of Progressive Education*, *18*(4), 209-222.

Ariav, T. (1991). Growth in teachers' curriculum knowledge through the process of curriculum analysis. *Journal of Curriculum and Supervision, 6*(3), 183-200.

Aslan, S. A., Turgut, Y. E., & Aslan, A. (2021). Teachers' views related the middle school curriculum for distance education during the COVID-19 pandemic. *Education and Information Technologies*, *26*(6), 7381-7405.

Atılgan, H. (2018). Değerlendirme ve Not Verme. In Atılgan, H. (Ed.) *Eğitimde Ölçme ve Değerlendirme* (11th Edition) (pp. 315-362). Anı Yayıncılık.

Atik Kara, D. & Sağlam, M. (2014). Öğretmenlik meslek bilgisi derslerinin öğrenme-öğretme sürecine yönelik yeterliklerinin kazandırılması yönünden değerlendirilmesi. *Eğitimde Nitel Araştırmalar Dergs., 2*(3), 28-86.

Bastian, K. C., Patterson, K. M., & Pan, Y. (2018). Evaluating teacher preparation programs with teacher evaluation ratings: Implications for program accountability and improvement. *Journal of Teacher Education*, *69*(5), 429-447.

Behar, L. S., & George, P. S. (2013). Teachers' use of curriculum knowledge. In *Our Evolving Curriculum* (pp. 48-69). Routledge.

Bullough Jr, R. V. (1992). Beginning teacher curriculum decision making, personal teaching metaphors, and teacher education. *Teaching and Teacher Education*, *8*(3), 239-252.

Büyükkaragöz, S. S. (1997). *Program geliştirme:" Kaynak Metinler"*. Öz Eğitim yayınları.

Büyüköztürk, Ş. (2014). *Sosyal bilimler için veri analizi el kitabı*. (3rd Edition). Pegem Akademi Yayıncılık.

CHE, (2018). *Yeni öğretmen yetiştirme lisans programları.* Retrieved July 15, 2020, from https://www.yok.gov.tr/kurumsal/idari-birimler/egitim-ogretim-dairesi/yeni-ogretmen-yetistirme-lisans-programlari

CHE, (2015). *Pedagojik formasyon eğitimi sertifika programına ilişkin çerçeve usul ve esaslar.* Retrieved August 8, 2021,from https://www.yok.gov.tr/Sayfalar/Kurumsal/IdariBirimler/egitim_ogretim_daire_bsk/pedagojik-formasyon-usul-ve-esaslar.aspx

CHE, (2007). *Öğretmen yetiştirme ve eğitim fakülteleri (1982-2007).* Retrieved November 11, 2020, from https://www.yok.gov.tr/Documents/Kurumsal/egitim_ogretim_dairesi/Ogretmen-Yetistirme/2.pdf

CHE, (1998a). *Türk yükseköğretiminin bugünkü durumu.* Retrieved March 4, 2021, from https://www.yok.gov.tr/Documents/Yayinlar/Yayinlarimiz/Turk-yuksekogretiminin-bugunku-durumu-mart-1998.pdf

CHE, (1998b). *Eğitim Fakültesi Öğretmen Yetiştirme Lisans Programları.* Retrieved November 11, 2020, from https://www.yok.gov.tr/Documents/Yayinlar/Yayinlarimiz/egitim-fakultesi-ogretmen-yetistirme-lisans-programlari-mart-1998.pdf

Creswell, J. W. (2015). *Educational research: Planning, conducting and evaluating quantitative and qualitative research* (5th Edition). Pearson Prentice Hall.

Creswell, J. W. (2009*). Research design: Qualitative, quantitative, and mixed methods approaches* (3rd Edition). SAGE Publications. Inc.

Creswell, J. W. & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd Edition). SAGE Publications, Inc.

Darabi, A. A., Sikorski, E. G., & Harvey, R. B. (2006). Validated competencies for distance teaching. *Distance Education*, *27*(1), 105-122.

Darazha, I., Lyazzat, R., Ulzharkyn, A., Saira, Z., & Manat, Z. (2021, March). Digital Competence of a Teacher in a Pandemic. In *2021 9th International Conference on Information and Education Technology (ICIET)* (pp. 324-328). IEEE.

Batı Anadolu Eğitim Bilimleri Dergisi, (2024), 15 (2), 2048-2068.
Western Anatolia Journal of Educational Sciences, (2024), 15 (2), 2048-2068.
Araştırma Makalesi / Research Paper

Darling-Hammond, L., Newton, X., & Wei, R. C. (2010). Evaluating teacher education outcomes: A study of the Stanford Teacher Education Programme. *Journal of Education for Teaching*, *36*(4), 369-388.

Demirel, Ö. (2014). *Eğitimde program geliştirme kuramdan uygulamaya.* (21st Edition). Pegem Akademi Yayın.

Durak, G., Çankaya, S. & İzmirli, S. (2020). Covıd-19 pandemi döneminde Turkiye'deki üniversitelerin uzaktan eğitim sistemlerinin incelenmesi. *Necatibey Eğitim Fakültesi Elektronik Fen ve Matematik Eğitimi Dergisi*, *14*(1), 787-809.

Ertürk, S. (2013). *Eğitimde" program" geliştirme*. Edge Akademi.

Fitzpatrick, J. L., Sanders, J. R. & Worthen, B. R. (2011). *Program evaluation: Alternative approaches and practical guidelines*. (4th Edition). Pearson Education Inc.

Franklin, B. M. (1977). Curriculum history: Its nature and boundaries. *Curriculum Inquiry, 7*(1), 67-79

Goldhaber, D., Liddle, S., & Theobald, R. (2013). The gateway to the profession: Assessing teacher preparation programs based on student achievement. *Economics of Education Review*, *34*, 29-44.

Güler, N. (2018). *Eğitimde ölçme ve değerlendirme.* (12th Edition). Pegem Akademi Yayıncılık.

Gülbahar, Y. & Karataş, E. (2016). Uzaktan öğretimi uzaktan eğitim yöntemi ile öğrenmek: "E-eğitmen sertifika programı". *Kastamonu Eğitim Dergisi*, *24*(4), 1867-1880.

Gürkan, B. (2019). Sınıf öğretmeni adaylarının "eğitim programı, öğretim, öğretimi planlama ve öğretimi değerlendirme" kavramlarına ilişkin bilişsel yapıları. *Kastamonu Eğitim Dergisi*, *27*(2), 633-645.

Güven, S. & Dak, G. (2017). Öğretmen adaylarının kamu personel seçme sınavına (KPSS) ilişkin oluşturdukları görsel metaforlar. *Eğitim ve İnsani Bilimler Dergisi: Teori ve Uygulama, 8*(15), 2-16.

Hurst, E. J. (2020). Web Conferencing and Collaboration Tools and Trends. *Journal of Hospital Librarianship*, *20*(3), 266-279.

ISO, (2021). *Teaching standards.* Retrieved March 2, 2022, from https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100354.pdf

Karabacak, K. (2018). Öğretim ilkeleri. In Güven, S. & Özerbaş, M. A. (2018). *Öğretim ilke ve yöntemleri* (pp. 124-162). Pegem Akademi Yayıncılık

Kavcar, C. (2002). Cumhuriyet döneminde dal öğretmeni yetiştirme. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, *35*(1), 1-14.

Kaysi, F. & Aydemir, E., (2017). Uzaktan eğitim süreçlerindeki etkileşim boyutlarının değerlendirilmesi. *Sosyal Bilimler Dergisi, 4*(11), 778-790.

Kilimci, S. A. (2011). *Turkiye'de öğretmen yetiştirme.* Pegem Akademi Yayıncılık.

Koçoğlu, E. (2020). Analysis of course transfer systems used in distance education. *The Eurasia Proceedings of Educational and Social Sciences*, *18*, 180-184.

Koçyiğit, M. & Eğmir, E. (2019). Öğretmenlerin hizmet öncesi eğitim deneyimleri: öğretmen yetiştirme üzerine bir analiz. *Akdeniz Eğitim Araştırmaları Dergisi*, *13*(30), 320-346.

LaChausse, R. G., Clark, K. R. & Chapple, S. (2014). Beyond teacher training: The critical role of professional development in maintaining curriculum fidelity. *Journal of Adolescent Health*, *54*(3), 53-58.

Leach, J. (2002). The curriculum knowledge of teachers: a review of the potential of large-scale, electronic conference environments for professional development. *The Curriculum Journal*, *13*(1), 87-120.

Madaus, G. F., Stufflebeam, D. L. & Scriven, M. (2000). Program Evaluation: A Historical Overview. In Stufflebeam, D. L., Madaus, G. F. & Kellaghan, T. (Ed.) *Evaluation Models: Viewpoints on Educational and Human Services Evaluation* (pp. 3-22). Dordrecht: Kluwer Academic Publishers.

Mertens, D. M. & Wilson, A. T. (2019). *Program evaluation theory and practice*. (2nd Edition). Guilford Publications.

Ministry of National Education. (2017). *General competencies of the teaching profession. Ankara: General Directorate of Teacher Training and Development.*

Ministry of National Education, (1980). *2064 sayılı tebliğler dergisi*. Millî Eğitim Bakanlığı Yayımlar ve Basılı Eğitim Malzemeleri Genel Müdürlüğü.

Batı Anadolu Eğitim Bilimleri Dergisi, (2024), 15 (2), 2048-2068.
Western Anatolia Journal of Educational Sciences, (2024), 15 (2), 2048-2068.
Araştırma Makalesi / Research Paper

MSPC. (2021). *KPSS: kamu personel seçme sınavı*. Retrieved March 10, 2022, from https://www.osym.gov.tr/TR,21141/2021-kpss-a-grubu-ve-ogretmenlik-kilavuz-ve-basvuru-bilgileri.html

Null, W. (2011). *Curriculum: From theory to practice*. Rowman & Littlefield.

Ornstein, A. C. & Hunkins, F. P. (2018). *Curriculum: Foundations, principles, and issues*. (2. Baskı). Pearson Education Limited.

Özkan, Y. Ö. & Güvendir, M. A. (2013). Öğrencilerin ölçme ve değerlendirme dersinin sunulmasında tercih ettikleri öğretim yöntemleri. *Eğitimde ve Psikolojide Ölçme ve Değerlendirme Dergisi*, *4*(1), 1-14.

QCT. (2021). *Australian professional standards for teachers.* Retrieved May 3, 2022, from https://www.qct.edu.au/standards-and-conduct/professional-standards

Rovai, A. P., & Downey, J. R. (2010). Why some distance education programs fail while others succeed in a global environment. *The Internet and Higher Education*, *13*(3), 141-147.

Stake, R. E. (2011). Program evaluation particularly responsive evaluation. *Journal of Multi-Disciplinary Evaluation, 7*(15), 180-201.

Stake, R. E. (1967). *The countenance of educational evaluation*. Department for Exceptional Children, Gifted Children Section.

Stufflebeam, D. L. (1983). The CIPP model for program evaluation. In Madaus, G. F., Scriven, M. & Stufflebeam, D. L. (Ed.) *Evaluation models: viewpoints on educational and human services evaluation* (pp. 117-141). Kluwer Academic Publishers.

Stufflebeam, D. L. & Coryn, C. L. S. (2014). *Evaluation theory, models, and applications*. (2nd Edition). Josey-Bass.

Tabachnick, B. G. & Fidell, L. S. (2013). *Using multivariate statistics.* (6th Edition). Pearson Education Inc.

Tan Şişman, G. (2021). Acquisition of the curriculum development knowledge in pre-service teacher education. *Pegem Eğitim ve Öğretim Dergisi, 11*(1), 355-400.

Tanner, L. N. (1982). Curriculum history as usable knowledge. *Curriculum Inquiry*, *12*(4), 405-411.

Thach, E. C., & Murphy, K. L. (1995). Competencies for distance education professionals. *Educational technology research and development*, *43*(1), 57-79.

Toomey, R. (1977). Teachers' approaches to curriculum planning: An exploratory study. *Curriculum Inquiry*, *7*(2), 121-129.

UK. Department for Education. (2021). *Teachers' standards.* Retrieved May 3, 2022, from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1040274/Teachers__Standards_Dec_2021.pdf

US. Department for Education. (2021). *Professional teaching standards.* Retrieved May 3, 2022, from https://www.ed.gov/category/keyword/national-board-professional-teaching-standards

Ünver, G. (2016). Turkiye'deki hizmet öncesi öğretmen eğitiminde kuram-uygulama bağlantısı. *Yükseköğretim ve Bilim Dergisi*, (1), 61-70.

Valcke, M., Rots, I., Verbeke, M. & Van Braak, J. (2007). ICT teacher training: Evaluation of the curriculum and training approach in Flanders. *Teaching and teacher Education*, *23*(6), 795-808.

Williams, P. E. (2003). Roles and competencies for distance education programs in higher education institutions. *The American Journal of Distance Education*, *17*(1), 45-57.

Winston, B. E., & Fields, D. L. (2003). Developing dissertation skills of doctoral students in an internet-based distance education curriculum: A case study. *The American Journal of Distance Education*, *17*(3), 161-172.

Yapucuoğlu, M. D. & Gündoğdu, K. (2020). Öğretmenlik meslek bilgisi derslerine ilişkin karşılaştırmalı nitel bir inceleme. *Akdeniz Üniversitesi Eğitim Fakültesi Dergisi*, *3*(2), 33-52.

Yenen, E. T. & Durmaz, A. (2019). Öğretmen adaylarının öğretmenlik mesleğine yönelik hazırbulunuşluk düzeylerinin incelenmesi. *OPUS Uluslararası Toplum Araştırmaları Dergisi*, *13*(19), 922-940.

Yılman, M. (2006). *Turkiye'de öğretmen eğitiminin temelleri*. (2nd Edition). Nobel Yayın Dağıtım.

Yüksel, İ. & Sağlam, M. (2014). *Eğitimde program değerlendirme*. (2nd Edition). Pegem Akademi Yayıncılık.