

English Teachers' Self-evaluation of ICT Skills, Use and Pedagogical Content Knowledge: e-INSET NET

İngilizce Öğretmenlerinin Bilgisayar Beceri, Kullanım ve Pedagojik İçerik Bilgi Özdeğerlendirmeleri: e-INSET NET

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Betül Arap¹ Fidel Çakmak²

Abstract

The purpose of the present study is to examine the self-evaluation of ICT skills, use and pedagogical content knowledge of novice English teachers participating in an integrated training program called e-INSET NET, an EU-funded project for providing electronic in-service training of novice English teachers for their professional development. 38 novice English teachers from different regions of Turkey participated voluntarily in the electronic training course e-INSET NET and they evaluated their ICT skills, use and pedagogical content knowledge. The study found that at the end of the program teachers thought they showed a spectrum of ICT skills development from advanced beginner level as indicated at the beginning of e-INSET NET program to advanced intermediate level. Additionally, e-INSET NET program was found to be beneficial for developing teachers' pedagogical content knowledge since it was based on needs assessment and integration of English as a subject matter with ICT skills. The study suggests that there be alternative web-based INSET programs based on needs assessment and integration of subject matters, which could increase teachers' motivation for professional development and willingness to take a part in INSET.

Keywords: electronic in-service training (e-INSET), integrated in-service training, distant learning, professional development

*Okt. Betül Arap, Mersin Üniversitesi, YDYO, betularap@mersin.edu.tr

**Okt. Dr. Fidel Çakmak, Mersin Üniversitesi, YDYO, fidelcakmak@mersin.edu.tr

Özet

Bu çalışmanın amacı, yeni mezun İngilizce öğretmenlerine hizmetiçi eğitim sağlamak üzere Avrupa Birliği fonundan hibe desteğiyle hazırlanan e-INSET NET adlı bütünleştirilmiş elektronik hizmetiçi eğitim programına katılan öğretmenlerin bilgisayar becerileri ve kullanımları ile pedagojik içerik bilgileri konusunda kendi özdeğerlendirmelerinin incelenmesidir. Bu programa Türkiye'nin farklı bölgelerinden gönüllülük usulüyle 38 yeni mezun İngilizce öğretmeni katılmış ve bilgisayar becerilerini, kullanımlarını ve pedagojik içerik bilgilerini değerlendirmişlerdir. Çalışma, e-INSET NET eğitim programı başlangıcında bilgisayar beceri ve kullanımı açısından ileri-başlangıç seviyesinde olan öğretmenlerin, eğitim sonrasında ileri-orta seviyeye doğru bir gelişme gösterdiklerini düşündüklerini ortaya çıkarmıştır. Buna ek olarak, e-INSET NET hizmetiçi eğitim programı, ihtiyaç analizi ve İngilizce öğretimi alanı ile bilgi ve iletişim teknolojileri becerileri bütünleştirilmesine dayalı olduğundan, öğretmenlerin pedagojik içerik bilgilerini geliştirmeleri açısından faydalı bulunmuştur. Çalışma, ihtiyaç analizi ve alan bütünleştirilmesine dayalı alternatif, web tabanlı hizmetiçi eğitim programlarını önermektedir. Bu tür programlar, öğretmenlerin mesleki gelişimleri için motivasyonunu ve hizmet-içi programlara katılma gönüllüğünü artırabilir.

Anahtar sözcükler: elektronik hizmetiçi eğitim, bütünleştirilmiş hizmetiçi eğitim, uzaktan öğrenme, mesleki gelişim

Introduction

In recent decades, in-service training (INSET) designs have been regarded as crucial elements in professional development of teacher training programs. INSET is defined as teachers' involvement in education and training activities so as to improve their professional knowledge and skills by Bolam (as cited in Roberts, 1998). The process and design of INSET are regarded as being relevant to the principles of adult learning theory (Knowles, 1984). Following the path of constructivism, a theory of knowledge through which meaning is constructed on the basis of experiences and conceptual schemata, adult learning theory proposes that for adults (herein teachers), improvement in professional development could occur where they are involved in the need analysis, development of the curriculum, and integration of rationale (theory) with practice. Regarding preconditions for adult learning, as Knowles (1984) stated, teachers see themselves as being responsible for their own lives, they have prior knowledge to mediate new knowledge and they learn best if there is a relevance be-

tween what they need to learn and the curriculum and whether they actively participate in the training phases. When accurate needs assessment before designing any INSET activity is done, the needs of teachers and the content of the programs are matched (Day, 1999), thus, the impact of training could be construed as successful (Ayas et al., 2007) in regards to the teachers' satisfaction (Bayar & Köstere-lioğlu, 2014) and improvement of quality in education (Borko, 2004, Özer, 2004).

In-service training of teachers has gained momentum in Turkey since the 1990s when a series of nation-wide in-service teacher education programs were planned by the Ministry of National Education (MoNE) due to curriculum innovations. Since then it has been a part of education development plans and government programs (Strategic development branch, 2009) as constructivism has been highly valued and respected in the national curricula. However, today, as Özer (2004) stated, there are still a number of problems for Turkish teachers with regards to their professional development. He outlined these obstacles as follows: “not being able to afford to buy and read the publications on the profession (72.5%); lack of motivational factors for professional development (55%); lack of activities in schools for professional development (47.6%); failing to ask for teachers' opinions before deciding on subjects and contents for in-service training programs (42.3%); not being able to choose the programs that teachers wish to attend (30.5%); not considering teacher needs in selecting trainees for the programs (29.1%); lack of qualified instructors in the programs (27.9%); accommodation and dining problems in the places where in-service training activities take place (27.5%), in-service training was costly for teachers (26.4%)” (Özer, 2004, p. 96). The alternative programs aim to address and resolve these drawbacks by providing nontraditional professional development through peer feedback, mentoring and coaching; and by encouraging teacher involvement in the need analysis and planning for the program content, as well as the design and implementations of professional development activities (Bayar & Kösterelioğlu, 2014).

In order to make national in-service training system more efficient, to ensure the quality of the educational activities, and to encour-

age more teachers to participate in INSET, alternative means such as e-learning platforms or web-based/online trainings have been suggested (Özer, 2004; Kılıçkaya & Seferoğlu, 2013). It should be noted that an INSET program, be it face to face or electronic, should undergo a thorough need analysis (Beduk, 1997; Çimer, Çakır, & Çimer, 2010; Şahin, 1996; Taymaz, Sunay, & Aytaç, 1997). Top down approaches ignoring teachers' needs in designing INSET programs can cause low participation or lack of motivation to take part in professional development as Özer (2001) indicated. Çakıroğlu and Çakıroğlu (2003) also highlighted the fact that there is a gap between the theories taught in school and common practice outside the university. Therefore, INSETs often begin with teachers having difficulties integrating what they learn with what they know and then applying new teaching approaches. To maximize efficiency and quality of INSET design, Çakıroğlu and Çakıroğlu (2003) suggested addressing the transferability of the content to the teaching context. That is, if the content is transferable, in-service training becomes more meaningful and is more efficiently integrated with actual classroom practices.

The need analysis for Information and Communication Technologies (ICT) skills has been recognized with the widespread growth of internet usage and multimedia technologies in the 21st century all over the world. Educational institutions have faced growing demands for knowledge by society and are expected to provide a way for teachers to adapt themselves to the new pedagogy for learning and teaching through ICT by integrating them into classroom practice. Teachers also feel the need to be involved in the integration of technology in the classroom, which is vital for their professional growth (Tyack & Cuban, 1995) and they want to learn basic computer skills, technologies and the applications of technology in classroom activities through in-service training (Lutonsky, 2009). In his study, Moonen (2001) indicated that the teachers were satisfied with the way in which the in-service activities through alternative tools (i.e. distance learning, computer labs) and the participation in the teacher networks brought about a substantial improvement in the field of educational ICT use. Regarding the Turkish context, Çelik and Aytın (2014) also mentioned positive perceptions that Turkish teachers of EFL had toward the role of technology in teaching. They note that the use of technology enhanc-

es learning and improve learner's retention. Contrary to the studies that present the positive effect of in-service training on teachers' feeling of self-competence in computer literacy, the participating teachers already considered themselves sufficiently competent in their computer literacy and felt that they could meet their students' needs whether or not additional training for computer literacy was available. However, they reported that lack of access to the internet and computers as obstacles which limit their use of computers.

In Turkey, the need for professional development for ICT was apparent and MoNE established IT rooms (computer labs with multimedia tools) as the first phase of the Basic Education Project in 1997 with the fundamental aim of quality improvement in basic education. The second phase began in the years between 2003 and 2005 and IT rooms were established all over Turkey (Yıldırım, 2007). The third phase (2011-2012) started with the governmental innovative program, known as the Fatih Project through which initially as pilot study, 52 schools in 17 cities were provided with interactive whiteboards (SMART Boards), internet network access and tablet computers for improving the quality of education, ensuring equal opportunity for students and enhancing ICT use in teaching and learning (MEB, 2012). To certify teachers' ICT instruction skills, MoNE took its responsibility to provide in-service training for teachers to improve their ICT use and skills in teaching. Nevertheless, the attempts to provide INSET training for Information Technology were not found to be effective due to the trainings not being tailored to the teachers needs, and training sessions failing to provide hands-on activities and practice (Yıldırım, 2007). Yıldız, Sarıtepeci and Seferoğlu (2013) evaluated the contributions of in-service training to the teachers' professional development within the Fatih Project framework. They noted that; teachers' ICT literacy needs improving and that learners' efficient use of ICT could be enhanced through participation in well-planned training. Küçüktepe and Baykın (2014) also mentioned the inefficiency of in-service training to improve ICT instruction skills of English language teachers. They observed that contrary to expectations the in-service was rather more theoretical than practical in content, and that the training was more likely about the introduction of Fatih Project to

the teachers rather than actual practical application of ICT skills. The timing of the in-service also affected teachers negatively as it was compulsory during the mid-term break. To overcome the difficulties of providing in-service training, Mirici (2006) suggested creating an e-service training model where teachers, MoNE experts, and school based experts or ‘formatters’ might interact with each other. Jung (2005) also advocated providing ICT teacher training in which ICT could be chosen either as the core technology (main content focus or core delivery technology) or as a complementary technology (part of the methodology of facilitating/networking technology). To emphasize the supplementary status of ICT in INSET, Jung (2005) proposed that teachers are more likely to recognize the benefits of ICT by actively experiencing ICT skills through training content. Teachers’ perceptions or attitudes toward the ICT integrated training have been taken into account for the evaluation of the training programs (Mouzakis, 2008); however, teachers’ self -evaluation, as a reflective action on their professional development, has not been taking place in the field of teacher education. In the same vein with Jung (2005) and Mirici (2006), Çakmak (2008) suggests that the electronic INSET model be integrated with pedagogical knowledge within ICT so that teachers’ needs and pedagogical content converge with each other in an integrated, meaningful and inclusive way. She also posits that self-evaluation of participating teachers after the online (or distant) training will be an efficient tool to evaluate the quality of the training program and would serve as an appropriate part of the INSET cycle in which needs assessment is followed by design, the design is followed by implementation and the implementation is followed by evaluation (Roberts, 1998).

Regarding self-evaluation as an element for establishing sustainability and raising awareness of the development in INSET design and one of the crucial components of INSET cycle (Roberts, 1998), the present study aims to examine novice English teachers’ self -evaluation of ICT skills, use and pedagogical content knowledge in an integrated training program called e-INSET NET. It is an EU-funded project (Ref: LLP-LdV-TOI-2007-TR-024) for providing electronic in-service training for novice English teachers to augment their professional development. It is believed that the results will contribute to

existing studies in which the efficiency of in-service training is debated and alternative (i.e., web-based or learning management system-based) training models are proposed. The present study emphasizes the value of integrating the teachers' pedagogical knowledge with ICT skills and use through the implementation of an alternative and integrated INSET model and its beneficial effect on professional development.

Method

This study is based on a quantitative research design and has used descriptive statistics to analyze the data collected. The data was collected through three questionnaires, which were about the description of current state of teachers' ICT use and skills, and the self-evaluation of teachers' professional development after training. Self-evaluation approach was applied since it was aimed "to obtain the clarity about true quality of practice" and ensure the awareness of the participants' practices that is "an essential prerequisite to developing professional identity and beginnings of understanding of what the role of teacher actually involved" in the process of training (McNamara & O'Hara, 2008, pp. 178-179). Three research questions related to the present study are as follows:

- 1) How do novice English teachers evaluate their levels of ICT skills before and after the electronic training?
- 2) What is the frequency of the use of ICT tools by novice English teachers'?
- 3) How do the novice English teachers evaluate their pedagogical content knowledge development in teaching skills after the training?

Participants

Thirty eight novice English teachers from different regions of Turkey with a year of teaching experience participated in the electronic training implementation e-INSET NET. The selection procedure started with the call for voluntary participation in the e-INSET NET

program made through City Directorate of National Education to all the schools in Turkey. The participation list with the contact details of each candidate was submitted to the researchers by mail. There were 158 English teacher candidates in total who volunteered and applied for the e-INSET NET. However, the sampling criteria specified novice English teachers defined as those who “have very little (e.g. less than two years) experience behind them” (Gatbonton, 2008, p. 162). Therefore, of 158 applicants only 38 novice English teachers met the criteria for novice teachers and these were selected for participation in the study. The selected teachers were contacted by phone at the initial stage and they were given information about the training and provided the password for accessing learning management system on the project website (<http://e-inset.mersin.edu.tr/>). The participation of teachers was full both for the training and the data collection procedures. That is, all of 38 English teachers participated both in training and self-evaluation. The sample consisted of 9 men (23.7%) and 29 women (76.3%) and the age of the participants ranged between 24 and 30. During the research period, 35 teachers were working at secondary schools and 3 teachers at high schools.

Training design

The e-INSET NET program is comprised of two integrated units. The first one is the *Technical Unit* called European Computer Driving License (ECDL) and was created by the team from the University of West Bohemia in Pilsen, Czech Republic. ECDL is a European qualification standard in basic computer skills and consists of 7 modules through which a computer user develops the skills and competencies to be computer literate. These modules are as follows: *Security for IT Users, IT User Fundamentals, Word Processing (MS 2007 version), Spreadsheets, Database, Presentation, and Using email and the Internet*. The content of the modules is enhanced by graphic and animation components. The medium of the instruction is English. The second *Pedagogical Content Unit* is composed of 3 modules: *Second Language (L2) Reading, L2 Listening, and L2 Writing*. These units were developed by a team of language teaching professionals from Middle East Technical University and Mersin University in response to a needs analysis. The aim of the course was to provide inclusive,

integrated, constructive and alternative training for novice English teachers in the very first year on the job when they are fresh out of school and most need assistance and support for professional development (Roberts, 1998). Each module in the Technical Unit offers information presentation and self-learning activities. Modules in the Pedagogical Content Unit also followed a similar structure with more hands on activities and discussion sessions moderated by tutors in the systems. Useful resources for further information were also provided for extra reading. The content was accessible through the project website and all participating teachers were provided personal passwords to log into the learning management system. Prior to the actual training, a video clip was uploaded to the program website to explain the goals of the training. The online guide for the technical features of the program was also available to aid teachers in accessing both technical and pedagogical training units. A help desk in the form of online chat was set up to overcome possible problems that participating teachers might encounter. The system was open for six months and accessible at any-time from anywhere as long as the participating teachers were online. The participation to the program was generally after 6 p.m. on weekdays and over the weekends. The training lasted six months. Afterwards, all participating teachers were asked to prepare a teaching material using both ICT and pedagogical content skills to contribute to the national material resources of English language teaching. This assignment was the tangible outcome of the training process which enabled participants to transfer their new knowledge into the context of their practice.

Data instruments

Three questionnaires were developed by the researchers: the first one related to the level of ICT skills. There were 3 levels: *advanced beginner*, *intermediate* and *advanced intermediate*. This questionnaire was applied before and after the training. The second questionnaire was developed to examine the frequency of ICT use in a professional context; it included 5 responses (*never*, *rarely*, *sometimes*, *mostly* and *often*) and administered before training. The third questionnaire was developed for the self-evaluation of teachers' professional development after training and included an attitude scale of the Likert type ranging from *I strongly disagree*, *I disagree*, *undecided*, *I*

agree, and I strongly agree. The items on the questionnaire were designed to elicit responses for understanding novice English teachers' self-evaluation of ICT skills, frequency of ICT use in professional life and pedagogical content knowledge. In order to ensure the reliability of the third questionnaire, Cronbach's alpha value was measured ($\alpha = .94$).

Data collection

Data was collected over two different intervals during the six-month-training period. The data related to the level of ICT skills was acquired both before and after the e-INSET NET program. The self-evaluation questionnaire designed for pedagogical content for skill teaching was administered after the e-INSET NET program.

Data Analysis

The quantitative data were analyzed using descriptive statistics to examine the novice English teachers' self-evaluation of ICT skills, use and pedagogical content knowledge. The frequency in the forms of percentage, mean and standard deviation were summarized for the analysis.

Results and discussion

The first question focused on self-evaluation of novice English teachers' levels of ICT skills before and after the electronic training.

Table 1. Novice Teachers' Self-evaluation for the Levels of ICT Skills before (pre-training) and after e-INSET NET Program (post-training)

	Pre-training frequency	Pre- training percent	Post-training frequency	Post- training percent
Adv. beginner level	12	31.6	4	10.5
Intermediate level	18	47.4	18	47.4
Adv. intermediate level	8	21.1	16	42.1
Total	38	100	38	100

As seen in Table 1, the results indicate after the training there is decrease in the percentage of advanced beginner (from 31.6% to 10.5%) and increase in the percentage of the advanced intermediate skills (from 21.1% to 42.1%). This implies that there has been an improvement in ICT skills from the teachers' perspective. This improvement suggests that through an alternative and integrated program, teachers of English can better their ICT use and proficiency.

The second question highlighted the frequency of ICT use in a professional context. The results are given in Table 2 below.

Table 2. The Frequency of ICT Use for Professional Life

ICT use	Percent (%)					Mean	SD
	Never	Rarely	Sometimes	Mostly	Often		
Text processing	2.6	5.3	31.6	39.5	21.1	3.71	0.96
Spreadsheets	2.6	18.4	26.3	39.5	13.2	3.42	1.03
Databases	21.1	21.1	28.9	28.9	0	2.66	1.12
Multimedia presentations	5.3	2.6	36.8	21.1	34.2	3.76	1.13
Documental bases	2.6	5.3	23.7	42.1	26.3	3.84	0.97
Audiovisual media	2.6	7.9	18.4	26.3	44.7	4.03	1.10
Educative software	2.6	7.9	21.1	28.9	39.5	3.95	1.09
Authoring systems and languages for the design of multimedia applications	2.6	10.5	31.6	36.8	18.4	3.58	1.00
Internet: Research of information and resources (navigator)	2.6	0	0	23.7	73.7	4.66	0.75
Internet as a medium of communication (email, mailing lists, forum, chat)	2.6	0.0	15.8	13.2	68.4	4.45	0.95
Design of web-sites	13.2	21.1	26.3	23.7	15.8	3.08	1.28

Advanced website design:								
Languages and authoring tools	21.1	26.3	21.1	15.8	15.8	2.79	1.38	

As shown in the Table 2, most of the novice English teachers (73.7%) often use internet for the research of information and resources, 68.4 % of them also often use the internet as a medium of communication. 42.1% of them mostly use documental programs and 39.5% of them use text processing and spreadsheets.

The final questionnaire emphasized novice English teachers' self-evaluation of pedagogical content knowledge for skill teaching after the training. The data is displayed in Table 3 below.

Table 3. Novice English Teachers' Self-evaluation of Pedagogical Content Knowledge after the Training

Items	Percent (%)					Mean	SD	
	I don't agree at all	I don't agree	Undecided	I agree	I strongly agree			
Reading	The Reading Module enabled me to understand the models of reading better.	0.0	0.0	2.6	52.6	44.7	4.42	0.55
	I feel I have gained further knowledge about creating reading activities.	0.0	2.6	5.3	42.1	50.0	4.39	0.71
Listening	The Listening Module helped me reconstruct certain concepts such as process and product oriented listening and listening approaches.	0.0	2.6	7.9	55.3	34.2	4.21	0.70

	I feel I have learnt useful tips to prepare listening activities.	0.0	5.3	10.5	44.7	39.5	4.18	0.83
	The Writing Module helped me understand the process of preparing rubrics for writing assignments	0.0	2.6	10.5	57.9	28.9	4.13	0.70
Writing	I feel I have learnt the vital concepts of writing such as unity and coherence.	0.0	0.0	2.6	47.4	50	4.47	0.56

As seen in the Table 3, most of the participating teachers have positive attitudes toward professional development in regards to teaching skills. They strongly agree that they have gained further knowledge about creating reading, listening, and writing materials (50%, 39.5% and 50% respectively). They agree that the content of reading (52.6%), listening (55.3%), and writing helped them better understand the issues and topics (57.9%).

The first result indicates that, there is a significant improvement in their self-perception of the participating teachers' self-evaluation of ICT skills before and after the program of ICT proficiency level. A number of participants (n=12) regarded themselves as being at the beginner level and ended at either an intermediate or an advanced intermediate level of proficiency. The increase seems to support the motivational factor of learning. Participating teachers were all volunteers and they were motivated to learn by taking part in the program actively, which might have satisfied their expectations and encouraged more active involvement in improving ICT skills for preparing teaching materials. Successfully integrating both technical and pedagogical content knowledge provided by the e-INSET NET program may have encouraged them to regard themselves as more proficient than before. It should be noted that the participants' success on

the task could also be attributed to prior knowledge which could be counted as uncontrolled variable in research design.

The second result demonstrates that the novice English teachers have basic competence with ICT skills and that they often use the internet, text processing and multimedia presentations in their professional life. It can be inferred that novice English teachers are able to manage and use basic ICT tools. This finding is consistent with the study by Çelik and Aytın (2014) as participant teachers regarded themselves as equipped with basic computer skills.

The third and final result shows that the novice English teachers have positive attitudes towards both content and material development for teaching. This supports the studies by Moonen (2001) and Mouzakis (2008), which state respectively that teachers have positive attitudes towards alternative training programs for their professional development and that they are comfortable with alternative training and find such programs beneficial.

Conclusion and Recommendations

This study aimed to examine novice English teachers' self-evaluation of ICT skills use and pedagogical content knowledge in an integrated training program called e-INSET NET, which is an EU-funded project for providing electronic INSET for novice English teachers for the enhancement of their professional development. The content of the training program was created in response to a need analysis and provided through the learning management system on the e-INSET NET project website. The result of the study indicates that participating teachers showed a transition in their self-perception of ICT skills from low level to advance intermediate level of proficiency. Novice teachers often use the internet, text processing and multimedia presentation in a professional context. This highlights that novice English teachers have basic ICT skills that they frequently use in their professional life. The final point is that novice English teachers had positive attitudes toward their improved capacity for language skill teaching and presumably were satisfied with the alternative and integrated training content. Satisfaction was to be expected as the content was developed on the basis of needs analysis. The convergence of what they needed to know and what they were taught ensured satisfaction

and positive attitudes towards training process for professional development (Carl, Fung, & Chan, 2002). Self-evaluation after the training program in INSET design is vital to reframe what has been learned and acquired as teaching skills. In light of the results, the present study offers three basic implications. Firstly, there should be more implementations to promote the use of e-tools for professional development. It would be beneficial to observe more cases to support the idea that web-based, alternative tools for INSET are practical, efficient and desired. Secondly, integrated INSET schemes are more meaningful when done in response to a careful needs assessment and supported by task-based learning. Involvement in tasks brings self-confidence which is a vital source for motivation. Last but not least, that a feeling of satisfaction can affect the self efficacy of teachers in a positive way. Satisfaction with their training encourages teachers to feel more secure and confident in applying what they have learned from the training process to the real life classroom.

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Genişletilmiş Özet

Giriş

Son yıllarda hizmetiçi eğitimin mesleki gelişim üzerinde etkisinin önemliliğine vurgular yapılmaktadır. Hizmetiçi eğitim öğretmenlerin mesleki bilgi ve becerilerini geliştirmeleri amacıyla eğitim faaliyetlerine katılmalarıdır (Roberts, 1998). Hizmetiçi eğitimin süreç ve tasarımı yetişkin öğrenme teorisi prensiplerini temel alır. Bu öğrenme teorisine göre, öğrenme deneyim ve kavramsal şemaların gelişmesiyle oluşur. Yetişkin (burada öğretmen) için, mesleki öğrenme, ihtiyaç analizi, müfredat geliştirilmesi ve teori ile uygulamanın birleştirilmesi gibi ön koşulların hazırlanmasıyla oluşabilir. Öğretmenler hizmetiçi eğitim öncesinde ne öğrenmeye ihtiyaç duydukları ile eğitim esnasında ne öğrendikleri arasında bir bağlantı kurduğu sürece bu deneyimden en iyi biçimde yararlanırlar. Ön koşulların olmayışı ya da eksikliği, öğretmenin öğrenme isteği üzerinde ters/olumsuz etki gösterebilir. Bu sebeple, öğretmenler bu tür etkinliklere isteksiz katılabilir ya da eğitim etkinliklerini bir yük gibi görebilirler. Özer'in (2001) çalış-

masında, Türkiye'deki öğretmenler mesleki gelişime ihtiyaç duyduklarını, hizmetiçi eğitim faaliyetlerini mesleki bilgi ve gelişimde önemli gördüklerini belirtmişlerdir. Fakat aynı zamanda öğretmenler hizmetiçi eğitimlerin ek zaman ve masraf gerektirmesinden ve ihtiyaca yönelik olmamasından dolayı katılma gönüllüğü göstermediklerini vurgulamışlardır. Böyle bir durumda öğretmenlerin kendi imkanlarını (yer, zaman ve bütçe olarak) zorlamayacak şekilde ve onların ihtiyaçlarına yönelik elektronik hizmetiçi eğitim tasarımlarının gerekliliği ortaya çıkmıştır. Bu çalışmanın amacı, yeni mezun İngilizce öğretmenlerine elektronik hizmetiçi eğitim sağlamak üzere Avrupa Birliği fonundan hibe desteğiyle hazırlanan e-INSET NET adlı bütünleştirilmiş hizmetiçi eğitim programı uygulaması sonrasında, öğretmenlerin bilgisayar beceri ve kullanımı ile pedagojik içerik bilgileri konusunda kendi özdeğerlendirmelerinin incelenmesidir. Bir başka deyişle, bu çalışmayla, öğretmenlerin geri dönütleri dikkate alınarak pedagojik içerik bilgisiyle bütünleştirilmiş bir bilgisayar teknoloji içeriğinin geliştirilmesiyle hazırlanan hizmetiçi eğitim programının mesleki gelişime etkisi olup olmadığı incelenmiştir. Çalışmada, ihtiyaç analizi ile geliştirilen bütünleştirilmiş alternatif hizmetiçi eğitim programı sonrasında, öğretmenlerin özdeğerlendirmelerine göre, hizmetiçi eğitim programının mesleki gelişime etkisi açısından değeri ve yararlılığı ortaya konmuştur.

Yöntem

Bu çalışma betimsel istatistik yöntemlerine dayandırılarak yapılmıştır. Çalışmada kullanılan araştırma soruları aşağıdaki gibidir:

- 1) Göreve yeni başlamış İngilizce öğretmenleri bilgi ve iletişim teknolojileri becerilerini elektronik hizmetiçi programından önce ve sonra nasıl değerlendirmektedirler?
- 2) Göreve yeni başlamış İngilizce öğretmenlerinin bilgi ve iletişim teknolojileri araçlarını kullanım sıklığı nedir?

- 3) Göreve yeni başlamış İngilizce öğretmenleri elektronik hizmetiçi programından sonra pedagojik içerik bilgisi gelişimlerini nasıl değerlendirmektedirler?

e-INSET NET hizmetiçi eğitim uygulamasına Türkiye'nin her ilinden, İl Milli Eğitim Müdürlükleri aracılığıyla gönüllülük usulüyle yeni göreve başlamış öğretmenler davet edilmiş. Başvuru yapan 158 kişi arasından, örneklem kriteri olan hizmet yılı 1 seneyi geçmemiş yani yeni mezun İngilizce öğretmeni olarak görev yapan 38 kişi (9 erkek, 29 kadın) seçilmiştir. Bu kişiler uzaktan sağlanan, bütünleştirilmiş e-INSET NET hizmetiçi eğitimine uzaktan öğrenme yönetim sistemi aracılığıyla aktif olarak katılmıştır. e-INSET NET programı öncesinde ve sonrasında yapılan anketlerle öğretmenler bilgisayar becerilerinin, kullanımlarının ve pedagojik içerik bilgilerinin özdeğerlendirmelerini yapmışlardır.

Eğitim tasarımı

e-INSET NET hizmetiçi eğitim programı iki alt programdan oluşan bütünleştirilmiş bir eğitim modülüdür. İlk modül *Teknik Bölüm* adı altında 7 alt modülden oluşan ve Avrupa Bilgisayar Yetkinlik Sertifikası (ABYS/ECDL) içeriklerini kapsayan modüldür. İkinci modül ise *Pedagojik İçerik Bölüm* adlı modüldür. Bu modülde yabancı dilde okuma, yazma, dinleme gibi dil becerilerine ve test hazırlama konusuna yer verilmiştir. Modüller Çek Cumhuriyeti'nden West Bohemia Üniversitesi'nden, Türkiye'den Orta Doğu Teknik Üniversitesi ve Mersin Üniversitesi'nden bilgisayar ve İngiliz dili eğitimi uzmanları tarafından hazırlanmıştır. Eğitim modülleri hem teorik bilgiye hem de pratiğe dayalı ipuçları sunan bilgiler içermektedir. Bu modüller sırasıyla önce teknik ve sonra pedagojik içerik olarak uzaktan eğitim erişim platformuna yüklenmiş ve katılımcıların erişimine açık tutulmuştur. Katılımcıların akşam saat altıdan sonra ve hafta sonları daha sıklıkla sisteme girdikleri gözlemlenmiştir. İkinci modül sonrası öğretmenlerden görev yaptıkları okullarda kullanılan ders kitaplarını temel alarak, bilgi ve iletişim teknolojileri araçlarını kullanarak bir materyal hazırlamaları istenmiştir. Bu materyal hizmetiçi eği-

tim sonunda teorik bilginin pratiğe geçirildiği somut bir ürün ve program çıktısı olarak değerlendirilmiştir.

Veri toplama araçları

Bu araştırma için 3 ölçek geliştirilmiştir: Bu ölçeklerden ilki Bilgi ve haberleşme teknolojileri becerilerinin mevcut durumunu tespit etmek için kullanılmış ve eğitim programı başlamadan önce katılımcı öğretmenlere uygulanmış bir ankettir. Bu ölçeğe göre katılımcı öğretmenlerin ileri-başlangıç, orta seviye, orta-ileri seviye olarak 3 ayrı seviyede oldukları saptanmıştır. İkinci olarak, öğretmenlerin Bilgi ve haberleşme teknolojileri kullanım sıklığını ortaya çıkaran ölçek kullanılmıştır. Üçüncü olarak hazırlanan ölçek ise, bu program sonrasında mesleki gelişimlerinin özdeğerlendirmesini içeren Likert tipi ölçektir. Bu anketin güvenilirliği için, Cronbach Alpha güvenirlik katsayısı hesaplanmıştır ($\alpha = .94$).

Ölçekler platform üzerinden öğretmenlere sunulmuş ve veriler altı aylık süre içinde program başında ve sonunda olmak üzere iki aşamada toplanmıştır.

Veri analizi

Veriler SPSS programı yardımıyla betimsel istatistik kullanılarak analiz edilmiş ve yüzdelik, ortalama ve standart sapma değerleri bulunmuştur.

Bulgular ve tartışma

e-INSET NET hizmetiçi eğitimi sonrasında, ileri-orta düzeydeki öğretmenlerin bilgisayar beceri ve kullanımında gelişme gösterdiklerini düşündükleri (program başında %21.1 iken sonunda %42.1) tespit edilmiştir. Program başında bir grup öğretmen (%31.6) kendilerini ileri-başlangıçta görürken program sonunda bu seviyede bir düşüş olması (%10.5) öğretmenlerin seviye ilerlettiklerini düşündüklerini ortaya koymuştur. Öğretmenlerin bilgi ve iletişim teknolojileri kullanım sıklığının nedenlerinin sırasıyla internet yoluyla

bilgi edinme (%73.7), interneti iletişim aracı olarak kullanma (%68.4), sesli-görsel çoklu ortam kullanma (%44.7) ve eğitimsel program kullanma (%39.5) olduğu görülmüştür. Son olarak öğretmenler, İngilizce yazma, okuma ve dinleme eğitim paketlerinden pedagojik içerik bilgisi olarak yararlandıklarını, e-INSET NET'in bu anlamda etkili olduğunu belirtmişlerdir. Başka deyişle, öğretmenler pedagojik içerik bilgi edinimi özdeğerlendirmelerinde, beceri öğretimi üzerine olumlu gelişme gösterdiklerini ortaya koymuşlardır. Okuma (%42.1), dinleme (%44.7) ve yazma becerilerini (%47.4) geliştirdikleri ve bu becerilerle ilgili aktiviteler hazırlama konusunda bilgi edindikleri görüşüne katılmışlardır. Ayrıca, hizmetiçi eğitim programının Pedagojik İçerik Bölümü ile ilgili olarak, okuma (%52.6), dinleme (%55.3), ve yazma (%57.9) modül içeriğinin faydalılığı ve bu üç beceriyle ilgili kavramları daha iyi anlamalarına yardımcı olduğu görüşüne de katılmışlardır.

Bu çalışmada, ihtiyaç analizine dayalı ve hizmetiçi eğitim çalışmalarına katılım konusunda yer ve zaman açısından esneklik tanıyan alternatif hizmetiçi tasarımlarının öğretmenlerin mesleki bilgi ve becerilerini arttırdığı yönünde bir sonuç çıkmıştır. Buna ek olarak, bilgisayar becerileri ve kullanımı ile pedagojik içerik bilgisinin bütünleştirildiği bir hizmetiçi eğitim tasarısı, teori ile uygulamayı bir araya getirmektedir. Böylelikle teknik bilgi ve beceri ile, pedagojik içerik bilgisinin birbirinden ayrıştırılmadığı, bütüncül hizmetiçi eğitim programı örneği sunulmaktadır. Knowles'un (1984) yetişkin öğrenim kuramı prensiplerine göre yetişkinleri motive eden iç faktörlerdir. Bu sebeple, öğretmenlerin ihtiyaç ve ilgilerinin, mesleki gelişim program planlamasına dahil edilmesi, deneyimlerinin pratiğe geçirilmesi ve program değerlendirilmesine aktarılması gerekmektedir. Bulgular öğretmenler için ihtiyaç analizine dayalı bütünleştirilmiş hizmetiçi eğitimin tatminkarlık ve daha fazla katılımı cesaretlendirici bir motivasyon unsuru olabileceğine işaret etmektedir. Çelik ve Aytın'ın (2014) çalışmasında belirtildiği gibi, öğretmenler temel bilgisayar becerilerine sahip olduklarını düşünmektedirler. Fakat temel bilgisayar bilgisini geliştirmeleri ve bunun alan bilgisiyle bütünleştirilmesi konusunda hizmetiçi eğitime ihtiyaç duyabilirler. Moonen (2001) ve Mouzakis (2008) çalışmalarında elektronik ortam aracılığıyla oluşturulan, zaman ve mekan açısından kolaylık ve esneklik sağlayan hiz-

metiçi eğitim programlarının öğretmenleri olumlu tutum ve davranışa yönlendireceği ve hizmetiçi eğitime katılımlarını arttıracığından bahsetmişlerdir. Bu çalışma benzer bir çıkarımı yapmaktadır. Oluşan olumlu tutum ve davranış, iç faktörlere dayalı motivasyonu artırıp eğitimden memnun kalma durumu yaratacak böylelikle hizmetiçi eğitim bir yük veya gereklilikten çıkıp isteğe bağlı, öğretici ve bütünleşik bir mesleki gelişim olarak algılanacaktır.

Sonuç ve öneriler

Bu çalışmanın amacı, yeni mezun İngilizce öğretmenlerine elektronik hizmetiçi eğitim sağlamak üzere Avrupa Birliği fonundan hibe desteğiyle hazırlanan e-INSET NET adlı bütünleştirilmiş hizmetiçi eğitim programı uygulaması sonrasında, öğretmenlerin bilgisayar beceri ve kullanımı ile pedagojik içerik bilgileri konusunda kendi özdeğerlendirmelerinin incelenmesidir. Bu amaçla hazırlanacak program içeriği için ihtiyaç analizi yapılmış, bu doğrultuda alanda uzman eğitimcilerin desteğiyle içerikler geliştirilmiş ve uzaktan eğitim sistemiyle katılımcı olan yeni mezun İngilizce öğretmenlerine sunulmuştur. Bu eğitim sonunda ileri-başlangıç düzeyindeki öğretmenler orta ve ileri-orta düzey seviyesine doğru bir geçiş göstermişlerdir. Yeni mezun İngilizce öğretmenleri mesleki ortamlarında sıklıkla internet, metin işlemcisi ve çoklu ortam sunum araçlarını kullandıklarını belirtmişlerdir. Bu da öğretmenlerin mesleki yaşamlarında bilgi ve iletişim teknolojileri araçlarıyla bilgi ve kaynak edinme, internet aracılığıyla iletişim kurma ve görsel-sesli çoklu ortam kullanma yönünde eğilimleri olduğunu ortaya koyar. Son olarak da yeni mezun bu öğretmenler materyal geliştirme konusunda bilgi ve pratik kapasitelerini geliştirdikleri konusunda olumlu fikir beyan etmişler ve programdan memnun kaldıklarını belirtmişlerdir. Çalışmanın başında yapılan ihtiyaç analizi sayesinde, program sonunda elde edilen öğretmen tatminkarlıkları beklenen bir sonuç olmuştur. Bu sonuç, hizmetiçi programları için içerik geliştirmede ihtiyaç analizi çalışmasının programa katılımı isteklendirme açısından önemli olduğunu vurgulamaktadır. Program sonrası yapılan özdeğerlendirme öğrenilen beceri ve bilgiyi yeniden şekillendirip, öğretmenin mesleki gelişimi için gereken bilgi ve becerilerinin farkındalığını ortaya çıkartmaktadır. Bu çalışmanın bulguları ışığında, üç çıkarım yapılabilir. Birincisi, uzaktan eğitim araçları

kullanılarak yapılan hizmetiçi eğitimler için daha çok uygulama yapılmalıdır. İkincisi, ihtiyaç analizinden sonra geliştirilen içerik bütünlüştürülmüş (teknik ve pedagojik) içerik olmalıdır. Böylelikle, mesleki bilgi ve beceriyi teknik ve pedagojik bütünlükle ele alan, teörinin pratiğe geçirildiği bir hizmetiçi programı ortaya çıkacaktır. Son olarak da hizmetiçi eğitimin sağladığı memnuniyet başarı ve öğrenme istekliliği yarattığından bu tür alternatif ve bütünlüştürük programlar öğretmenin özyeterlilik anlayışına katkı sağlayacaktır.