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The views concerning in-service teacher education courses in Science teachers' professional development

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Abstract

The main aim of this research is to identify administrators' and science teachers' views regarding in-service teacher training courses. Semi-structured interviews and questionnaires have been utilized for collecting the data. The interviews were conducted with 6 head teachers (administrators) and 6 science teachers. A questionnaire developed by the researchers was conducted upon 109 teachers from seven primary schools. The results showed that there were discrepancies between the results of questionnaires and the interviews. In the questionnaires, most of the teachers indicated that the in-service training courses were helpful in their professional development. In the interviews, even though most of the head teachers found in-service training courses to be helpful in teachers' professional development, most of the teachers did not share the same opinion. Both the questionnaires and the interviews revealed some reported deficiencies and expectations from in-service training courses.

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1. Introduction

Needs are never-ending and continuous (Kalkandelen, 1979). Therefore, each professional group is in need of regular in-service trainings (Özyürek, 1981; Taymaz, 1997; Yağcı, 2003). As a requirement of life-long education, in-service trainings aim to provide the knowledge, skills and attitudes which secure employees success in their professions, and their well being which results to increased productivity (Yalın, 2001). Adapting to new technologies and new scientific information supports our effectiveness in work (Özdemir, 2004). The acquisition of professional knowledge and skills which help to follow developments in the teaching profession and adapting new technology and tools is acquired through in-service training activities (Çatmatlı, 2006). So what does in-service training mean? According to a Turkish dictionary published by the Turkish Language Associations (TDK, 2010) the in-service training is a form of training to develop professional knowledge and skills, provided at work while employees are at actual work. For Maaske (1955), entering a profession, requires for progress and development of the profession itself. In-service training of teachers, both in the continuous development of our society and the education system itself is a major factor in the austere function as a teacher, while constantly developing itself and providing the possibility to attend in-service training activities. As the major component of both the continuous development of our society and the education system itself, teachers' function is considered tough. They must constantly develop their abilities, so it is possible for them to attend in-service training activities (MEB, 1968). In-

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service training should be designed to enhance the quality and efficiency while this structure must be planned in advance.

Öztürk Akar (2007) conducted study to identify the needs of biology teachers' in-service training and to enhance the effectiveness of existing professional development activities. She came to the conclusion that in terms of their experience and the needs, there were differences between teachers who work in Southeastern Anatolia, Eastern Anatolia and the Black Sea region and teachers working in other areas. Aydın (2008) studied the teachers' perceptions towards in-service training and the support they received from their administrators and found significant differences in the use of knowledge and skill levels in schools and in their personal characters. Baran (2008) sought to determine the views of primary school teachers regarding the implementation of computer education through distance in-service training. Teachers thought that remote in-service training increased the quality of education and promoted their own professional development. Gönen and Kocakaya (2005) aimed to evaluate high school physics teachers' views regarding in-service training. Despite that a large majority of teachers perceived the in-service training as necessary, the number of in-service training they have actually attended was under the expectations. Uçar and İpek (2006) reported that teachers and administrators found in-service training as necessary but not effective. Çiftçi (2008) analyzed in-service training programs prepared for music teachers between the years 1960- 2006.

Literature, records the perspectives regarding in-service training towards different branches. In this research, the main purpose is to identify administrators' and science teachers' views concerning in-service teacher education courses.

2. Methodology

Mix methods are utilized in this research. The scope of this research comprised for administrators and science teachers from primary schools in the Nevşehir province at the academic term of 2009- 2010.

For collecting the relevant data, semi-structured interviews inquiring the factors effecting professional development and a 5 point Likert-type questionnaire ($\alpha = .79$) regarding "science teachers' perception towards the factors effecting their professional development" were developed and applied (Kaya, 2011).

The factor analysis yielded for three factors which were labeled as "The factors effecting Professional Development", "The views concerning Professional Development", "The views on in-service training". For this study, only "The views on in-service training" factor with a Cronbach's Alpha Internal Consistency coefficient of 0.71 was utilized. The questionnaire was conducted upon 109 teachers from seven primary schools. Despite the fact that the questionnaire is consisting of 27 questions related to the factors effecting professional development, in this study, only the results of six questions related to in-service training will be presented.

For the Interviews, 6 science and technology teachers and 6 school administrators were randomly selected. The interview form included 8 open-ended questions which aimed to reveal participants' views concerning the factors effecting professional development. In this study, only the data concerning in-service training will be presented. Interviews with the participants were conducted in 7 different primary schools and lasted approximately 25 minutes each. With the permission of the interviewees the interviews were recorded. While the analysis of the interviews was carried out with content analysis, the analysis of the questionnaires was made with descriptive analysis.

3. Findings

The participants were asked about their views regarding the contribution of in-service training to their professional development. The results are presented in Table 1.

Table 1. The views concerning the contribution of in-service training to teachers' professional development (interview results)

Views	Administrators		Teachers	
	f	%	F	%
In-service training did contribute to my professional development	4	67	1	17
In-service training did not contribute to my professional development	2	33	5	83

The interviews revealed that 67% of administrators and only 17% of teachers having perceived that in-service training did contribute to their professional development; however, 33% of administrators and 83% of teachers stated contrary. Such as;

"Due to in-service training we get insight about any changes in our profession in a very short period of time". (A1)

"I don't think that in-service training has any impact on my Professional development". (T5)

The participants were asked about their views concerning the deficiencies of in-service training courses. The results are shown in Table 2.

Table 2. The reported deficiencies of in-service training courses (interview results)

Views	Administrators		Teachers	
	f	%	f	%
Staff for in in-service training are not competent	2	33	4	67
Difficulties experienced in terms of space	3	50	1	17
Difficulties experienced in-service training schedule.	2	33	1	17
I think that friends just went to the in-service training programs for having off time	1	17	-	-
Numbers of courses are not sufficient	1	17	-	-
The in-service training is not practice-based	-	-	1	17

The majority (67%) of teachers and 33% of administrators reported that the staff in in-service training was not competent. For instance:

"The most important problem of in-service training activities is that the staff is not professionally competent. You only see a power-point presentation and a person who only reads the power point presentation" (A2).

Half of the administrators and 17% of the teachers pointed out the difficulties they experienced in terms of physical conditions:

"From time to time constraints concerning space are not taken very seriously" (A3)

Teachers' views concerning the in-service training courses as collected by the questionnaires are presented in Table 3.

Table 3 : Teachers views concerning the in-service training courses (questionnaire results)

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
	(%)	(%)	(%)	(%)	(%)
In-service training programs contributed to my professional development	10,1	43,1	26,6	18,3	1,8
In-service training programs are prepared by branches.	33,0	29,4	11,9	21,1	4,6
Coverage of time was sufficient in-service training programs	3,7	27,5	18,3	45,0	5,5
To date, the teachers were active in attended in-service training programs.	1,8	15,6	15,6	49,5	17,4
The physical conditions of in-service training programs were appropriate	2,8	33,9	27,5	27,5	8,3
In-service training programs given by experts can contribute to my professional development.	78,9	19,3	0,9	0,9	-
At the end of in-service training programs, feedback from the teachers about the program should be received	49,5	48,6	1,8	-	-
In the preparation of in-service training programs, social and cultural activities should also be arranged.	45,9	46,8	6,4	0,9	-

As visualized in Table 3, only 53,2% of the teachers reported a contribution of in-service training programs towards their professional development. 62,4% mentioned that in-service training programs were prepared by branches, however mostly pointed out their negative views. Teachers stated that time coverage was not sufficient and that the teachers were not active in the in-service training programs. On the other hand, 35,8% of the teachers observed that the physical conditions of the programs were not appropriate. The majority suggested that in-service training should be provided through experts and feedback from the teachers about the programs should be regarded important whilst social and cultural activities should also be arranged.

4. Discussion

The results show that there are discrepancies between the results of questionnaires and interviews. In the questionnaires, more than half of the teachers indicated that the in-service education courses were helpful in their professional development. In the interviews, even though most of the head teachers found in-service education courses to be helpful in teachers' professional development, the vast majority of teachers did not join this opinion. These results might be interpreted as that in-service training programs contribute to teachers' professional development, but some of the shortcomings of existing programs have to be eliminated. Similarly, in Aydın's (2008) and Baran's (2008) studies, teachers found in-service training programs as useful in developing their profession. In Uçar & İpek's (2006) study, administrators and teachers found in-service training programs as necessary but not effective.

A positive result was that in the questionnaires, teachers seemed to be satisfied from in-service training programs being prepared according to the respective branches. Both the questionnaires and the interviews revealed that there are some reported deficiencies in in-service teacher education courses and their expectations. These were; the lack of professional competence of the staff, problems emerging due to physical conditions and the time schedules. In the interviews, administrators and teachers also individually stated that in-service training is not practice-based while some of the teachers do not take these programs seriously and the numbers of the courses are not sufficient. These problems may emanate due to the reason that teachers did not have actively participated in in-service training programs as pointed out by teachers in the questionnaires. Accordingly, Öztürk Akar (2007) also pointed out the same problem and suggested that in order teachers to effectively perform their profession, they should take active part in visual, hands-on (practical) and interactive activities and be conscious of the importance of professional development.

5. Conclusion and suggestions

Qualified in-service training programs will contribute to the teachers' professional development. According to the results, it might be concluded that the deficiencies of in-service training programs brought forward by the participants, include the contribution of these programs to professional development. The elimination of these shortcomings and teachers' active participation in these programs may improve the effectiveness, quality and importance of these programs, as well as improving the quality of in-service training programs. Teachers should diligently participate and accept these programs as opportunities for their professional development.

References

- Aydın, D. (2008). Öğretmenlerin, Yöneticiler Tarafından Hizmet İçi eğitim Programıyla Desteklenmesi Sonucunda Kazandıkları Bilgi ve Becerileri Eğitime Yansıtma Düzeylerinin İncelenmesi (İstanbul-Beykoz İlçesi Örneği), Yeditepe Üniversitesi, Yüksek Lisans Tezi, İstanbul.
- Baran, F. (2008). Milli Eğitim Bakanlığı'nın Uzaktan Hizmet İçi Eğitim Yöntemiyle Bilgisayar Eğitimi Uygulamasına İlişkin Öğretmen Görüş ve Önerileri, Yeditepe Üniversitesi, Yüksek Lisans Tezi, İstanbul.
- Büyüköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö. E., Karadeniz, Ş. ve Demirel, F. (2008). *Bilimsel Araştırma Yöntemleri*, Pegem Akademi Yayıncılık, Ankara.
- Çatmatlı, M. (2006). "Gelecek İçin Eğitim" Hizmet İçi Kursunun Değerlendirilmesi, Balıkesir Üniversitesi, Yüksek Lisans Tezi, Balıkesir.
- Çiftçi, E. (2008). Türkiye'de Milli Eğitim Bakanlığı Tarafından Müzik Öğretmenlerine Verilen Hizmet İçi Eğitimin İncelenmesi ve Müzik Öğretmenlerinin Hizmet İçi Eğitim İhtiyaçlarının Belirlenmesi, Gazi Üniversitesi, Doktora Tezi, Ankara.
- Gönen, S. & Kocakaya, S. (2005). Fizik Öğretmenlerinin Hizmet İçi Eğitimler Üzerine Görüşlerinin Değerlendirilmesi, *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi*, Sayı: 17.
- Kalkandelen, A. H. (1979). *İşletmeler, KİT'ler ve Kamu Kuruluşları İçin Hizmet İçi Eğitim El Kitabı*, Ajans Türk Gazetecilik ve Matbaacılık, Ankara.
- Kaya, V. H. (2011). Fen ve Teknoloji Öğretmenlerinin Profesyonel Gelişimlerini Etkileyen Etkenlere Yönelik Görüşler, Yüksek Lisans Tezi, Ahi Evran Üniversitesi, Fen Bilimleri Enstitüsü, Kırşehir.
- Maaske, R. J. (1955). *Türkiye'de Öğretmen Yetiştirme Hakkında Rapor*, Maarif Basımevi, Ankara.
- Milli Eğitim Bakanlığı (1968). *Milli Eğitim Hizmetinde Öğretmen ve Eğitim Uzmanları (Durum ve Sorunları)*, XI. Milli Eğitim Şurası, Talim ve Terbiye Başkanlığı Ankara.
- Özdemir, Ç. (2004). *Öğretmenlik Mesleğine Giriş*, Asil Yayın ve Dağıtım, Ankara.
- Öztürk Akar, E. (2007). Biyoloji Öğretmenlerinin Hizmet İçi Eğitim İhtiyaçları ve Gözlemlenen Bölgesel Farklılıklar, *Eğitim ve Bilim*, Cilt 32, Sayı:143.
- Özyürek, L. (1981). *Öğretmenlere Yönelik Hizmet İçi Eğitim Programlarının Etkinliği*, Ankara Üniversite Eğitim Fakültesi Yayınları, Ankara.
- Taymaz, H. (1997). *Hizmet İçi Eğitimi, Kavramlar, İlkeler, Yöntemler*, Ankara.
- Türk Dil Kurumu. (2010). Büyük Türkçe Sözlük, Web: <http://tdkterim.gov.tr/bts/>, adresinden 01.01.2010'da alınmıştır.
- Uçar, R. & İpek, C. (2006). İlköğretim Okullarında Görev Yapan Yönetici ve Öğretmenlerin MEB Hizmet İçi Eğitim Uygulamalarına İlişkin Görüşleri. *Yüzüncü Yıl Üniversitesi, EğitimFakültesi Dergisi*, Cilt:III, Sayı:I.
- Yağcı, E. (2003). Kamu Kurum ve Kuruluşlarındaki Hizmet İçi Eğitim Etkinlikleri, *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, Sayı: 9, Sayfa 249-256.
- Yalın, H. İ. (2001). Hizmet İçi Eğitim Programlarının Değerlendirilmesi, *Milli Eğitim Dergisi*, Sayı: 150.