

Evaluation of an in-Service Training Program Developed about Measurement and Evaluation*

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Abstract

In the present study, the purpose is to evaluate the effectiveness of “Awareness of Measurement and Evaluation” in-service training program organized by the Ministry of National Education by using “participant-oriented program evaluation approach”. The study is qualitative research in phenomenological design. The participants of the study are 85 voluntary teachers selected from among 8th grade teachers having participated in the in-service training program in 2014. The data collection tool is composed of questions that will allow the teachers to evaluate the in-service training program given about measurement and evaluation. The data collected in the study were analyzed according to content analysis approach. The analysis revealed that majority of the teachers think that the objectives of “Awareness of Measurement and Evaluation” in-service training program are at the comprehension level of cognitive domain and these objectives do not meet their needs. Majority of the teachers are of the opinion that the content of the in-service training program is adequate. Most of the teachers finding the content inadequate believe that the content is mostly directed towards reminding their prior information and does not include topics such as alternative methods and techniques used in measurement and evaluation; assessment and writing exam questions”. Almost all of the participants find some aspects of the in-service training program positive such as its learning and teaching process, use of audio-visual materials, consideration of learner-instructor interaction, inclusion of methods and techniques putting the learner in the center, focus on practice and presentation of samples that can be used in class. Moreover, the teachers made some suggestions for future measurement and evaluation in-service programs in terms of “preparation of a draft program” and “planning of the program”.

Keywords: in-service training, measurement and evaluation, program evaluation, participant-oriented program evaluation

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Ölçme ve Değerlendirmeye Yönelik Hazırlanan Hizmet İçi Eğitim Programının Değerlendirilmesi

Öz

Bu araştırmada, MEB tarafından düzenlenen “ölçme ve değerlendirmeye yönelik farkındalık” hizmet içi eğitim programının etkililiğinin “katılımcılara yönelik program değerlendirme yaklaşımı” işe koşularak değerlendirilmesi amaçlanmıştır. Çalışma, olgu bilim deseninde nitel bir araştırmadır. Araştırmanın katılımcılarını, 2014 yılında hizmetiçi eğitim programına katılan 8. sınıf öğretmenlerinden gönüllü olan 85 öğretmen oluşturmaktadır. Veri toplama aracı, öğretmenlerin, ölçme ve değerlendirmeye ilişkin verilen hizmet içi eğitimi değerlendirmelerine olanak sağlayacak sorulardan oluşmaktadır. Araştırmada elde edilen veriler, içerik analizi yaklaşımına göre analiz edilmiştir. Araştırmada, öğretmenlerin çoğunluğu, “Ölçme Değerlendirmeye Yönelik Farkındalık” hizmet içi eğitim programının amaçlarını bilişsel alanın alt basamaklarında görmekte, amaçların gereksinimlerini karşılamadığını düşünmektedir. Öğretmenlerin çoğu aldıkları hizmet içi eğitim programının içeriğinin yeterli olduğu görüşündedir. İçeriği yetersiz bulan öğretmenlerin çoğunluğunun sunduğu neden, içeriğin ön bilgileri hatırlatmaya yönelik olması ve gereksinim duydukları “ölçme ve değerlendirmede kullanılan alternatif yöntem ve teknikler; değerlendirme ve soru yazımı” gibi konulara yer verilmemesidir. Araştırmada öğretmenlerin hemen hepsi, hizmet içi eğitimin öğrenme-öğretme sürecini; görsel-işitsel materyallerin kullanılması, öğrenen-öğretici etkileşiminin önemsenmesi, öğreneni merkeze alan yöntem ve tekniklere yer verilmesi, uygulamaya önem verilmesi ve derslere uyarlanabilecek örneklere yer verilmesi gibi özellikler belirterek olumlu değerlendirmişlerdir. Ayrıca öğretmenler, gelecekte ölçme ve değerlendirme ile ilgili yapılacak hizmet içi eğitimlere ilişkin “program taslağının hazırlanmasına” ve “programın planlanmasına” yönelik öneriler getirmişlerdir.

Anahtar Sözcükler: hizmet içi eğitim, ölçme ve değerlendirme, program değerlendirme, katılımcılara yönelik program değerlendirme yaklaşımı

Introduction

In teaching programs prepared in 2005 and revised in 2013, meanings and functions loaded on the elements of the programs changed depending on education philosophies and learning approaches the programs rely on. It is emphasized that in relation to one important element of the programs; that is, measurement and evaluation dimension, an important change occurred because process-based evaluation was employed. In the programs, conception of evaluation seeing evaluation separated from instruction and mostly employing multiple-choice tests was replaced by a new conception of evaluation emphasizing the togetherness of evaluation with teaching process and focusing on student observations, performance tasks, check lists, portfolios, peer assessment and self-assessment to measure student performance. In the measurement and evaluation of student achievement, in addition to written and oral exams, multiple evaluation approaches started to be capitalized on (Akbayır et al., 2006; Arslan et al., 2009; Özenç, 2013; Tuncer, 2010). At that point, though the teaching programs are evaluated positively as they attach importance to evaluation of teaching process, they were criticized as they did not elaborate some concepts related to measurement and evaluation and they were not understood by teachers (Gözütok, Akgün & Karacaoğlu, 2005) and they did not include examples and explanations illustrating and demonstrating how ways of performance-based state determination should be used to measure higher cognitive skills (Kutlu, 2005).

Besides the transformation observed in the teaching programs, considering the reflections of international large-scale tests and limitations of the former exam systems, centralized national exams administered by the Ministry of National Education were also revised, and different applications were conducted especially in relation to passage from primary education to secondary education. Instead of one-shot exams consisting of multiple choice questions, a new system considering in-class performance and marks assigned by teachers was established.

All these changes observed in the teaching programs and national exams reminded teachers of their measurement and evaluation responsibilities; made teachers' competencies in the field of measurement and evaluation more important and increased the expectation for quality evaluation. Assignment of roles and duties to teachers regarding measurement and evaluation that are different from former ones gave rise to question of how competent teachers are in terms of knowledge and skills required to fulfill these roles and duties. In literature, since the first application of the program, there has been a great deal of research focusing on this question and this research revealed that teachers experience serious problems while employing measurement and evaluation approaches of this new teaching program. One of the common findings of this research is that teacher lack information and skills required for the development and administration of alternative measurement and evaluation tools and making use of their outcomes (Acar & Anıl, 2009; Adıyaman, 2005; Arıbaş & Göktaş, 2014; Bal & Özkülekçi, 2010; Çelikkaya, Karakuş & Demirbaş, 2010; Erdemir, 2007; Gelbal & Kelecioğlu, 2007; Kabapınar & Ataman, 2010; Karacaoğlu & Acar, 2009; Karadüz, 2009; Özenç, 2013; Şenel Çoruhlu et al., 2009; Tuncer, 2010). In the early periods when these programs were initiated, some

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research conducted to evaluate the programs reported that teachers experience the most problems in relation to measurement and evaluation dimension (Birgin & Tutak, 2006; Gözütok, Akgün & Karacaoğlu, 2005). Since then many researchers have pointed out the need for in-service training programs to overcome these problems (Arıbaş & Göktaş, 2014; Gözütok, Akgün & Karacaoğlu, 2005; Karacaoğlu & Acar, 2009; Kartallıoğlu, 2005; Kılıç, 2005; Şenel Çoruhlu et al., 2009; Tuncer & Yılmaz, 2012).

Successful and effective application of novelties related to measurement and evaluation in the classroom environment requires teachers to acquire new information and skills. For this purpose, the Ministry of National Education responsible for creating solutions to these problems has organized many in-service training programs about measurement and evaluation. Supporting teachers with in-service training programs is of great importance for teachers to implement many experiential innovations in relation to measurement and evaluation. For these in-service training programs to be functional and effective, they need to be continuously evaluated and developed. However, in recent years, there has been very little research focusing on the evaluation of the effectiveness of the in-service training programs about measurement and evaluation (Çepni & Şenel-Çoruhlu, 2010); hence, there is a great need for such research. In this regard, the current study aims to evaluate the effectiveness of “Awareness of Measurement and Evaluation” in-service training program organized by the Ministry of National Education in the city of Kocaeli in April and May 2014 by using “participant-oriented program evaluation approach”. In this line, answers were sought for the following questions;

1. What are the opinions of teachers about the objectives of the in-service training program?
2. What are the opinions of the teacher about the content of the in-service training program?
3. What are the opinions of the teachers about the learning-teaching process of the in-service training program?
4. What are the suggestions of the teachers for future in-service training programs about measurement and evaluation?

The present study is believed to make some contributions to the determination of the shortcomings of in-service training programs about measurement and evaluation and thus to the continuation of the program development cycle.

Method

Research Model

This study aiming to evaluate the effectiveness of “Awareness of Measurement and Evaluation” in-service training program is qualitative research in phenomenological design. The main purpose of phenomenological studies is to investigate how people perceive their own experiences by focusing on these experiences (Patton, 1990). By describing individuals’ experiences in social

organizations and perceptions shaped as a result of experiences, phenomenological science contributes to the development of human resources (Gibson & Hanes, 2003). Within the context of the present study, the aim is to evaluate an in-service training program organized by the Ministry of National Education through the experiences of the participants and to contribute to future in-service training programs.

Participants

The participants of the study are 85 voluntary teachers selected from among the 8th grade teachers participating in “Awareness of Measurement and Evaluation” in-service training program organized by the Ministry of National Education in the city of Kocaeli in April-May 2014. Of the participants, 24 are males and 61 are females. Of the participating teachers, 16 are Turkish language teachers, 15 are Mathematics teachers, 13 are Revolution History and Kemalism, 19 Science and Technology teachers, 7 are Religious Culture and Moral Knowledge teachers and 15 are Foreign Language teachers. Twenty nine of the teachers have been working as a teacher for 0-4 years, 27 for 5-9 years, 12 for 10-14 years, 9 for 15-19 years, 4 for 20-24 years and 4 for 25 years or more.

Data Collection Process

First written permission was obtained from the participants. The data of the study were collected at schools where the in-service training program was given in Çayırova and İzmit provinces of the city of Kocaeli and in the building of governor of Körfez province where the in-service training was given between 20th of April and 25th of May, 2014. The data collection tool is comprised of questions allowing the participants to evaluate the in-service training program they have participated in about measurement and evaluation. The participants were asked these questions in written form; “1. What are your opinions about the objectives of the in-service training program? 2. What are your opinions about the content of the in-service training program? 3. What are your opinions about the learning-teaching process of the in-service training program? 4. What are your suggestions for future in-service training programs addressing the topic of measurement and evaluation? And they were asked to give written responses to these questions. As the participants were not evaluated in the in-service training program, the participants were not asked questions about measurement and evaluation dimension of the program. Data collection procedure lasted 25-30 minutes.

Data Analysis Process

The data collected in the current study were analyzed according to content analysis approach by using NVivo8.0. program package. The collected data were loaded into the program. Responses to each question asked to the participants were analyzed and coded on their own. The data derived from this process were reread to determine their similarities and differences, then the related codes were brought together, conceptual meaning of each section made up of codes was attempted to be found and then they were thematized. For instance, the similar codes obtained from

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the responses given to the question “What are your suggestions for future in-service training programs addressing the topic of measurement and evaluation?” were determined to be in-service training programs should be conducted in seminar period, participants’ branches should be taken into account while constructing participating groups, participation in service-training programs should be voluntary and they were thematized under the theme of “planning of the program”. The themes are supported with direct quotations.

Validity and Reliability Studies

In order to increase the credibility (internal validity) of the study, the number and characteristics of the participants are explained in detail and data collection and analysis processes are thoroughly discussed. In addition to this, research report was sent to two experts specialized on both related research topics (measurement and evaluation specialist and program development specialist) and qualitative research methods and their opinions were sought about the suitability of the research report. In line with the feedback taken from the experts, some corrections were made. In order to establish the external validity of the study, how the qualitative data collection tools were developed, how the data were collected and analyzed are explained in detail.

While the findings of the present study are presented, they are presented as they are without making any interpretation; the themes and sub-themes emerging as a result of data analysis are frequently supported with direct quotations. In the analysis of the qualitative data, computer-assisted data analysis programs are considered to be increasing the accountability (transparency) in qualitative research. Moreover, these programs contribute to the validity of the study by making the researcher close to the data; to the reliability of the study by providing certainty and completeness and to the generalizability of the study by providing means of dealing with large number of samplings (Kuş, 2006). In the current study, in the analysis of the qualitative data, Nvivo 8.0 qualitative data analysis program package was used to enhance the validity and reliability of the study.

The suggestion made by LeCompte and Goetz (1982) to improve reliability is to confirm the obtained data by seeking the opinions of another researcher (Yıldırım and Şimşek, 2006). In order to establish the reliability in the analysis of the data derived from the teachers’ responses, analysis of the data obtained from each participant was conducted by one of the researchers. Each created code and direct quotations related to the codes were examined by another researcher. Following the examination of the second researcher, both researcher came together to reach a consensus on controversial codes and themes and then necessary adjustments were made. For the reliability calculation of the analyses conducted, the formula proposed by Miles and Huberman (1994) was used [$\text{Reliability} = \frac{\text{Agreement}}{\text{Agreement} + \text{Disagreement}}$]. The calculations revealed that the reliability of the analyses of the data collected from the teachers is 81%.

Findings

In this section, findings obtained from the analysis of the teachers' opinions about "Awareness of Measurement and Evaluation" in-service training program are presented.

The Teachers' Opinions about the Objectives of "Awareness of Measurement and Evaluation" In-service Training Program

Majority of the teachers (f=61) stated that the objectives of "Awareness of Measurement and Evaluation" in-service training program are at the knowledge and comprehension levels of cognitive domain. Some of the teachers, on the other hand, stated that the objectives of "Awareness of Measurement and Evaluation" in-service training program are at the application level of cognitive domain. Some of the teachers with relatively shorter professional career (f=10) emphasized that the objectives of the program are very similar to the objectives of the course they took in their undergraduate education and those of the courses they studied while preparing for KPSS exam and thus, the objectives of the in-service training program did not meet their needs. In this connection, some excerpts from the teachers' statements are given below:

T16. It has objectives reminding us of our previously learned information.

T3. It is good that the program has practice-oriented objectives.

T81. The one prepared by the ministry was unnecessary for me because while I was preparing for KPSS, I learned all of it.

T46. ...it does not have the objectives I am interested in because I am not preparing for KPSS. This seminar reminded me of my old days when I was preparing for the exam.

The Teachers' Opinions about the Content of "Awareness of Measurement and Evaluation" In-service Training Program

The findings obtained as a result of the analysis of the teachers' opinions about the content of "Awareness of Measurement and Evaluation" in-service training program are presented in Table 1.

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Table 1

The teachers' Opinions about the Content of "Awareness of Measurement and Evaluation" In-Service Training Program

Themes	f
Opinions about the adequacy of the content	42
Opinions about the inadequacy of the content	17
It only reminds the information already possessed	11
It does not include alternative methods and techniques used in measurement and evaluation	4
It does not include topics related to evaluation	1
There is no detailed information about how to write question	1
Total	59

As can be seen in Table 1, the teachers' opinions about the content of "Awareness of Measurement and Evaluation" in-service training program are collected under two themes which are "opinions about the adequacy of the program" and "opinions about the inadequacy of the program". Most of the teachers (f:42) stated that the content is adequate because they wonder about the content of the program and there are some topics that will help them to improve their weak sides. In this regard, some excerpts from the teachers' statements are given below:

T65. It has a content good enough for us to see our shortcomings in the field of measurement and evaluation.

T66. I think necessary information was given ... I found it quite useful as I will be able to conduct better evaluations from now on.

T68. Its content is adequate. Particularly the information given about international exams (PISA, TIMS) and TEOG exam was really good.

Some of the teachers (f=17) stated that the in-service training program was inadequate. The main reason stated by these teachers for finding the program inadequate is that the content is very similar to what they learned during their undergraduate education. Another reason stated by the teachers for the inadequacy of the program is that the program does not introduce methods and techniques that can be used in determining whether students have achieved the goals at school. Only one of these teachers stated that the content is inadequate as there are not enough topics related to evaluation and another teacher found it inadequate because of the lack of information about how to write exam questions. In this regard, some excerpts from the teachers' statements are given below:

T8. ...As a newly appointed teacher, I got fed up with seeing the issues related to evaluation I had already known again and again.

T85. *It was an unnecessary application. We had already taken this training at university more precisely.*

T15. *Information presented in the seminar is not applicable in school life.*

T29. *It may have included old and new methods of measurement.*

T5. *There is no content addressing evaluation.*

The Teachers’ Opinions about the Learning-teaching Process of “Awareness of Measurement and Evaluation” In-service Training Program

The findings obtained as a result of the analysis of the teachers’ opinions about the learning-teaching process of “Awareness of Measurement and Evaluation” in-service training program are presented in Table 2.

Table 2

The Teachers’ Opinions about the Learning-Teaching Process of “Awareness of Measurement and Evaluation” In-Service Training Program

Themes	f
Instructor’s having effective communication skills	74
Use of audio visual materials	32
Consideration of learner-instructor interaction	17
Inclusion of methods and techniques putting the student into center	11
Attaching importance to application	7
Presentation of samples that can be used in class	5
Total	146

As can be seen in Table 2, when the teachers’ opinions about the learning-teaching process of “Awareness of Measurement and Evaluation” in-service training program are examined, it is seen that almost all of the teachers indicate that the learning-teaching process of the program is good enough by emphasizing the elements such as “instructor’s having effective communication skills”, “use of audio visual materials”, “consideration of learner-instructor interaction”, “inclusion of methods and techniques putting the student into center”, “attaching importance to application”, “presentation of samples that can be used in class”. In this regard, some excerpts from the teachers’ statements are given below:

T3. *The instructor’s displaying strong communication skills kept the class lively.*

T21. *Utilization of audio visual materials kept the attention alive.*

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T3. *Application-oriented teaching of the course was good.*

T9. *A method encouraging the learner to participate was followed.*

T63. *Use of different methods and techniques made the class dynamic.*

T5. *Teaching with examples increased the retention.*

Apart from these opinions, one teacher stated that group works were abused and another teacher stated that more time should have been spent on methods and techniques putting the students into center; thus, they found the learning-teaching process inadequate. In this regard, some excerpts from the teachers' statements are given below:

T2. *Group works were abused.*

T75. *The learning-teaching process was good. But, it was directed towards the transfer of information rather than discussion of problems and finding solutions.*

The Teachers' Suggestions for Future In-service Training Programs Addressing the Issue of Measurement and Evaluation

The teachers' suggestions for future in-service training programs addressing the issue of measurement and evaluation were collected under two main themes which are "preparation of a draft program" (f=96) and "planning of the program" (f=70). The teachers' suggestions for the development of a draft program for future in-service training programs addressing the issue of measurement and evaluation are presented in Table 3.

As can be seen Table 3, the teachers' suggestions for the preparation of a draft program for future in-service training programs addressing the issue of measurement and evaluation were collected under two themes which are "suggestions related to its content" and "suggestions related to teaching-learning process". Most suggestions were made by the teachers for the content of the draft program to be developed for future in-service training programs about measurement and evaluation. The teachers' suggestions for the content of future in-service training programs were subsumed under two themes which are "suggestions related to topics to be included in the content" and "suggestions related to organization of the content".

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Table 3

The Teachers' Suggestions for the Development of a Draft Program for Future In-Service Training Program Addressing the Issue of Measurement and Evaluation

Themes	f
Preparation of a draft program	96
Suggestions for the content	74
Suggestions for the topics to be included in the content	69
Information should be given about TEOG	22
Information should be given about validity and reliability	14
Evaluating the validity and reliability of the exams they conduct	8
Elimination of mistakes from measurement	6
Information should be given about the principles to be considered in writing question	10
Alternative measurement evaluation methods and techniques should be included	10
Information should be given about the evaluation of exams	9
Establishment of objectivity in evaluation	7
Evaluation of performance and project works	2
Topics related to evaluation of skills should be included	2
Information should be given about the evaluation of inclusive students	1
The topic of formation of the table of evaluation criteria should be dealt with	1
Suggestions for the arrangement of the content	5
The content should be organized according to "modular content organization approach"	3
The content should be reduced	2
Suggestions for learning-teaching process	22
More application should be included in in-service training programs	21
Methods and techniques putting the student into center should be included	1

The highest number of teachers suggested that information about TEOG should be included in the content (f=22). Then they suggested that information about validity and reliability should be given so that they could evaluate the validity and reliability of their exams (f=14). The other suggestions of the teachers are giving information about the main principles of writing question (f=10), introducing alternative measurement and evaluation methods and techniques (f=10), giving information about the evaluation of exams (f=9), about the evaluation of skills (f=2), about the evaluation of inclusive students (f=1), about the formation of the table of evaluation criteria (f=1). Teachers' suggestions for the organization of the content of the in-service training program to be conducted in future are organization of the content according to modular content organization approach (f=3) and reduction of the content (f=2). Below are presented some excerpts to show the teachers' opinions about the issue:

T52. *Gaining detailed information about TEOG*

T10. *Things to be done for a test to be reliable and comprehensive*

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T4. What should be considered in writing question?

T80. Seminars addressing process evaluation should be held

T36. Gaining information about branch-specific alternative measurement and evaluation techniques

T58. I would like to learn about newly emerging approaches in measurement and evaluation.

T77. Teachers should be informed about the measurement and evaluation of inclusive students

T72. Seminars should be held not only to inform how to measure knowledge but also how to measure skills particularly in the field of science

T45. The topics of measurement and evaluation should be dealt with separately in detail

T7. The content should be divided into modules

T18. ...The time is too short to handle so many topics

Teachers stated that while designing the learning-teaching process of future in-service training programs, methods and techniques putting the student into center (f=1) and application should be included (f=21). In this regard, excerpts from teachers' statements are presented below:

T36. The content should not be suffocated with theoretical information; more emphasis should be put on application

T65. A seminar called application in the field of measurement and evaluation can be organized

T33. Discussion method should be used

The teachers' suggestions about the planning of the in-service training program to be organized about measurement and evaluation are presented in Table 4.

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Table 4

The Teachers' Suggestions about the Planning of the In-Service Program to Be Organized in Future about Measurement and Evaluation

Themes	f
Planning of the program	70
The in-service training should be organized in seminar period	29
Branch variable should be taken into consideration while forming participating groups	22
Participation in the in-service training program should be on voluntary basis	8
Needs analysis should be conducted before the development of the in-service training program	4
The number of participants should be reduced	3
The number of instructors should be increased	2
Length of service should be taken into consideration while forming participating groups	2

As can be seen in Table 4, the highest number of teachers suggested that the in-service training to be organized in future should be given during seminar period; otherwise, it would not be useful as they were very busy (f=29). They also stated that for improving the efficiency of the future in-service training program, branch variable should be taken into account while forming participating groups (f=22). Some of the teachers also argued that participation in the future in-service training program should be on voluntary basis for participants to be more interested and engaged (f=8). Four of the teachers making suggestions for the future in-service training program suggested that needs analysis should be conducted before developing the in-service training program. And three of the teachers stated that the number of participants should be reduced to increase the efficiency. Two of the teachers think that the number of instructors should be increased in the future in-service training program.

And finally two of the teachers stated that length of service should be considered while forming participating groups. In this regard, some excerpts from the teachers' statements are given below:

T10. Organization of branch-specific seminars would be more useful.

T18. Participation should be on voluntary basis.

T57. Authorities from the Ministry should participate in so that the problems of teachers could be better understood and solved.

T29. Teachers should be consulted about seminar topics in advance

T80. The number of participants should be reduced.

T58. Teachers should be divided into groups of 0-5, 5-10 and 10-15 years of service.

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Results, Discussion and Suggestions

The current study investigated the secondary school eight grade teachers' opinions about "Awareness of Measurement and Evaluation" in-service training program organized by the Ministry of Education. As a result of the analysis of the collected data, following results were obtained.

Majority of the teachers think that the objectives of "Awareness of Measurement and Evaluation" in-service training program are at the comprehension level of cognitive domain and these objectives do not meet their needs. Another remarkable finding of the study is that teachers with relatively shorter professional career found the in-service training program unnecessary emphasizing that the objectives of the program are very similar to the objectives of the course they took in their undergraduate education. The reason for the teachers' thinking in this way may be lack of needs analysis while planning the in-service training program. As implied by the name given to this in-service training by the Ministry of National Education, this in-service training aims to raise the teachers' awareness of measurement and evaluation. Another reason for this opinion of the teachers may be that they are forced to participate in this training by the Ministry of National Education and that they have to participate through they do not need such a training. When the literature focusing on the evaluation of in-service training programs is examined, it is seen that there are some studies reporting that information and skills aimed to be inculcated in teachers are inadequate in meeting teachers' needs and these findings concur with this finding of the current study (Arıbaş et al., 2012; Başkan, 2001; Gülmez, 2004, Yalın, 2001).

Most of the teachers think that the content of the in-service training program is adequate. The reason proposed by most of the teachers finding the content inadequate is that it only reminds them of their prior information. Another reason may be not conducting needs analysis. Other reasons proposed by the teachers finding the content inadequate are that topics related to alternative methods and techniques used in measurement and evaluation and evaluation and question writing are not included. The reasons proposed by the teachers for the inadequacy of the content show that they have needs in these areas. Moreover, there are some studies in literature indicating that teachers need to be educated about alternative methods and techniques used in measurement and evaluation. For instance, Gözütok et al. (2005), Kartallıoğlu (2005), Çoruhlu, Nas and Çepni (2009), Gök and Şahin (2009), Tuncer and Yılmaz (2012), Özenç (2013) concluded that there is a need for training of teachers about alternative measurement and evaluation techniques. Birgin, 2010; Candur, 2008 and Ersoy (2008) found that teachers mostly use multiple-choice tests and they do not draw on alternative measurement and evaluation techniques due to lack of information. These finding indirectly support the related finding of the current study.

Another finding of the current study is that almost all of the teachers reported positive opinions about the learning-teaching process of the in-service training

program. The reason proposed by almost all of the teachers for this viewpoint is that the instructor has an effective communication skill. The other reasons stated by the teachers having positive opinions are the use of audio-visual materials in the learning-teaching process, importance attached to learner-instructor interaction, employment of methods and techniques putting the student into center, importance attached to application and presentation of samples that can be used in class. In literature, some studies were found concurring with this finding. For instance, Arıbaş, Kılınç, Demir and Göldağ (2012), Yalın (2001) and Çatmalı (2006) found that the teachers reported positive opinions about the qualifications of the instructors giving the in-service training; Özer (2004), Tekin and Ayas (2005) and Özen (2006) found that the teachers think that there are some application-oriented classroom activities and this concurs with the finding of the study.

No evaluation was performed to determine whether the teachers participating in “Awareness of Measurement and Evaluation” in-service training program achieved the objectives of the program. As a result of this, measurement and evaluation dimension of the program in the current study could not be evaluated.

The teachers’ suggestions for the future in-service training program addressing the issue of measurement and evaluation are related to “preparation of a draft program” and “planning of the program”. The teachers’ suggestions for the preparation of a draft program are related to content and learning-teaching process. Suggestions about the content are related to how the content should be and how the content should be organized. The teachers’ suggestions about how the content should be are related to TEOG exam, reliability and validity of exams, principles to be considered in writing question, alternative methods and techniques, evaluation of exams and evaluation of skills. Moreover, the teachers emphasized the need for the use of modular approach and reduction of the content. In literature, there are studies emphasizing teachers’ need for education about evaluation of skills (Akçadağ, 2010), alternative measurement and evaluation methods and techniques (Acat and Demir, 2007; Anıl and Acar, 2009; Atikol, 2008; Candur, 2007; Çalık, 2007; Doğan, Karakaya and Gelbal, 2007; Erdal, 2007; Erdoğan, 2007; Gelbal and Kelecioğlu, 2007; Kanatlı, 2008; Kazu, Pullu and Demiralp, 2008; Özdemir, 2010; Şenel Çoruhlu et al., 2009; Yaşar et al., 2005). Moreover, there are some other studies pointing out the need for teachers to be trained about measurement and evaluation in general (EARGED, 2007; Gültekin, Çubukçu & Dal, 2010; Yaşar et al., 2005). In the study by Sarıgöz (2011), the teachers drew attention to intense content of in-service training programs.

The teachers’ suggestions for the learning-teaching process are inclusion of more application and use of methods and techniques putting the student into center. The teachers think that the objectives of the in-service training program are not at application level and that the learning-teaching process is not based on application and these opinions are in compliance with each other. This consistency also shows that the elements of program development function as a dynamic whole (Demirel, 2005; Varış, 1997). Parallel to the findings of the current study, some other findings

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reported in the literature point out teachers' demand for application-based structuring of in-service training programs (Arıbaş et al., 2012; Çatmalı, 2006; Sarıgöz, 2011; Yalın, 2001).

In relation to the planning of the program, majority of the teachers stated that the in-service training program should be organized within the seminar period. Again, majority of the teachers emphasized that in the formation of participating groups, branch variable and voluntary participation should be taken into consideration. Some other teachers are of the opinion that in-service training programs should be designed according to needs analysis, the number of participants should be reduced, the number of instructors should be increased and length of service should be taken into consideration. The findings related to the planning of the program concur with the findings of the studies in literature. For instance, there are some other studies reporting that teachers want in-service training programs to be held within the seminar program (Turgut, 2012) and participation in these programs to be on voluntary basis (Arslantaş and Özkan, 2013; Turgut, 2012). The reason for teachers' wanting the length of service in the formation of participating groups may be their belief that in-service training needs may differentiate depending on the length of service. There are some other similar findings reported in literature (Serin and Korkmaz, 2014). It was expected that the teachers would like any in-service training program to be constructed according to the branches of the participants because the teachers believe that their in-service training needs may vary depending on branch. Again, in many studies, it is emphasized that in-service training programs are developed without conducting needs analysis, considering the needs of teachers and teachers see this as a problem (Ataklı, 1987; Avşar, 2006; Çatmalı, 2006; Eyecisoy-Oturak, 2014). The extent to which topic-based not problem-based in-service training programs meet the needs of teachers should be discussed.

In light of the findings of the current research, it is clear that in-service training programs planned and conducted by the Ministry of National Education should be offered either at the beginning or end of the school year when teachers are not very busy. The problem of mandatory participation in in-service training programs could be solved in different ways such as participation in in-service training programs may find reflections in teachers' service points and teachers who can improve themselves can be rendered advantageous in appointment. One of the important findings of this study is teachers' desire for in-service programs to be developed based on needs. Thus, while planning similar in-service training programs, needs analysis should be conducted. In order to enhance the efficiency of in-service training programs, groups can be constructed based on branch, the number of participants can be reduced and the number of instructors can be increased.

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