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Professional Development Needs of Turkish Teachers in an Era of National Reforms

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Abstract: An emerging consensus in the teacher education literature confirms that supporting educational reforms and improving designs for national programs can be accomplished simply by maximizing the match between teachers' expressed needs and the content by which those professional development needs are met. This paper presents an interpretation of findings on Turkish teachers' in-service training needs during an era of massive reform. The findings indicate that teachers do not report a strong need for any professional development program content. Analyses are based on survey data from 1,730 Turkish teachers from 352 primary schools. The results raise the discussion of whether teachers simply do not want to participate or actually do not need to participate in any more training during this era of massive educational reforms. The paper concludes by outlining policy and practice implications arising from the research.

Introduction

As the changing world of teaching requires considerable educational change and reform, the educational system in Turkey has also been subject to massive reform attempts during the last two decades. In 1997, the primary school system changed from a 5-year compulsory education system to an 8-year compulsory education system to reduce dropouts and ensure that girls stayed longer in the education system. In 2003, after confronting disappointing international exam scores, Turkey's education system was faced with another massive curricular reform that, through a constructivist approach, mandated a significantly transformed instructional philosophy, teaching styles, teacher and student roles, and curricular organization. In 2012, the primary school system structure was changed again from an 8-year compulsory education system to a controversial 4+4+4 system that extended compulsory education from 8 years to 12 years and required the recruitment of more teachers and establishment of more school buildings. Meanwhile, massive infusions of educational technology have been initiated nationally, with 12,800 primary and secondary school students using tablet computers in pilot schools that also have smart boards installed in each classroom. Following a nationwide pilot study, the Turkish Ministry of National Education (MNE) aims to provide 570,000 smart boards to classrooms and one tablet computer to each student (12 million total) in Turkey (MNE, 2013). Although such massive reforms may seem perfect on paper, they bring with them many challenges for teachers such as new difficulties in lesson planning, inadequate subject matter knowledge, insufficient teacher ability to use

new pedagogies, poor textbook quality, considerable difficulty caused by teachers' and students' changing roles, and lack of sufficient support and in-service training for teachers (De Jong, Veal, & van Driel, 2002; Guo, 2007). In discussing the possible side effects of massive educational reforms, the literature confirms that reform attempts either succeed or fail depending on the quality, quantity, and timing of professional development support provided to teachers (Guskey, 2003; Roeser et al., 2012). Thus, during an era of educational reform, teaching quality improvement goes hand in hand with teacher professional development improvement.

Although Turkey has been undergoing massive educational reform for the last two decades, only a few studies have documented teacher-requested professional development needs in specific educational sectors. For example, Turkish social studies teachers have reported needing training on material and activity development, the use of materials, and contemporary issues in social studies education (Oztaskin, 2010). Turkish teachers who graduated from degree programs other than teacher education have reported training needs regarding preparing yearly plans, preparing for course sessions, using instructional materials, and managing crowded classrooms (Gokce, 2010; Uney, 2006). Novice teachers have reported needing in-service training on confronting the challenges of heavy workloads, social status identity, and classroom management (Ozturk, 2008). Recent studies conducted with science and mathematics teachers show that because the Ministry of Education has insufficiently supported teacher training, many Turkish teachers have problems with changing educational paradigms (Babadogan & Olkun, 2007). Teachers are not informed about or included in in-service training programs on reformed curricula by school administrators. Furthermore, since the quality and quantity of the training programs are not at the desired level, teachers do not feel competent to teach the new content knowledge (Elmas et al., 2014; Taneri & Engin-Demir, 2011). According to Scheerens' (2010) findings on teachers' professional development in the OECD countries, there is no available information on the type of professional development teachers perceive that they need. Thus, the recent perceived needs of Turkish teachers are also not reflected in the OECD TALIS report.

Heightened interest in teacher education in recent years highlights the vital role of teachers in the education system, asserting that "The quality of education system cannot exceed the quality of its teachers" (Barber & Mourshed, 2007). Thus, it is essential to understand teachers' professional development as a way of accomplishing the basic goals of education. In Turkey, there are two ways teachers are educated: (a) by graduating from a department of education and (b) by earning a certificate from a pedagogical formation program. In the former situation, teacher candidates first take the highly competitive university entrance examination. The duration of primary school teacher education and the duration of secondary school teacher education at the university are 4 and 5 years respectively. The pedagogical formation program of teacher education is described like this: Alternatively certificated teachers are trained in a short time (approximately 14 weeks) and are from departments other than education departments, such as science and art or engineering departments. However, this method not only affects the quality of teacher education negatively but also causes the spread of belief among all university students "If you cannot be anything, be a teacher" (Altan, 1998, p. 416). This practice has resulted in the devaluing of teaching as a profession by teachers themselves and by society. Gokce (2010) documented this claim by showing that 66% of the teachers who graduated from departments other than education departments applied for teaching positions because they could not find jobs related to the profession for which they trained.

After completing these programs, teacher candidates are awarded teaching certificates, which are not sufficient for appointment to teach in the public school system. To be hired as a public school teacher, candidates must take the Government Staff Selection

Exam, whose questions test knowledge of Turkish grammar and reading, math, the principles of Kemal Atatürk, geography, civics, current events and Turkish culture, in addition to education-related subjects such as learning and development, curriculum and instruction, counseling, and pedagogical content knowledge. The examination score determines the school and city in which the candidate will work. MNE determines the number of teachers who will be recruited and the minimum required examination score for teachers from each subject area.

The Turkish K-12 education system, which requires children to start primary school at the age of 66 months, is under the supervision and control of MNE. It is known as the most centralized education system among OECD countries (Fretwell & Wheeler, 2001). In this system, MNE implements highly structured top–down educational reforms that affect the whole country's youth. Following initial teacher preparation, in-service training of teachers, defined as training that teachers experience from day one of teaching until retirement (Henderson, 1978), then becomes the answer to the need for the teaching force's long-term professional growth. Professional development literature confirms that effective training programs should be aligned with reform efforts if educational reforms are to be implemented effectively (Desimone, 2009; Desimone et al., 2002; Guskey, 2003; Vukelich & Wrenn, 1999).

Teachers' in-service training was one of the strategic objectives declared by the World Bank Turkey Report (2005), which heavily emphasized the need for initial training, induction, support, and continuing professional development. During the past decade, Turkish national data have shown marked increases in human resources, money, and time devoted to improved and expanded in-service teacher education efforts. Although there have been encouraging improvements in the number and variety of professional development activities and of the quantity of funds devoted to teachers' professional development, the effectiveness of these mandatory training programs in their design, implementation, and follow-up support have been questioned by teacher educators and educational researchers in Turkey. Thus, this study's purpose is to determine the in-service training content Turkish teachers report needing, considering the massive, nationally mandated and centrally administered reforms. Understanding what teachers need could provide useful suggestions for teacher education and development policy and information for educational reformers regarding the success of their efforts. To achieve this ambitious and practical purpose, two research questions guided the study:

1. What do Turkish teachers report needing for in-service training in an era of educational reforms?
2. How do teachers' self-reported in-service needs differ depending on gender, subject area, educational background, and teaching experience?

Method

Population and sample

The population of this study was all K-8 classroom teachers working in Turkish public schools. To provide each member of the population an equal chance of being selected, and to maximize the study's external validity, we used cluster random sampling. The researchers performed the sampling procedure on the population in two steps. (a) selection of cities: for each of Turkey's 26 sub-regions the researchers randomly selected one city; and (b) selection of schools. The researchers determined the number of schools by dividing the number of schools in each city by 40 (the number of schools in Tunceli, which has the smallest number of schools). Then, 352 primary schools from the 26 cities were selected by

simple random sampling. Six volunteer teachers from each school were invited for a total of 2112 participants. The project, part of a PhD dissertation completed at Middle East Technical University, was financed by a grant from the MNE Educational Research and Development Department (ERDD). ERDD mailed all questionnaires in sealed envelopes to each teacher in selected schools via school principals. ERDD also sent a formal support letter to each participant explaining the study's significance, data collection procedure, and return deadline; ERDD also provided financial support for return mailing. After paying mailing expenses and allowing necessary time (approximately 2 months) to complete the questionnaire, 1730 teachers returned completed forms in sealed envelopes at the beginning of spring 2012, yielding a return rate of 81.9%. The high return rate might be explained in part by good timing: teachers have no final exams or term projects to manage at this time of year. The demographic characteristics of participating teachers are presented in Table 1.

	N	%
Gender		
Female	907	52.4
Male	758	43.8
Missing	65	3.8
Teaching Experience		
0-5	724	41.8
6-10	455	26.3
11-15	263	15.2
16 and more	259	15.0
Missing	29	1.7
Branch		
Classroom Teacher	459	26.5
Math	248	14.3
Science and Technology	247	14.3
Turkish	260	15.0
English	244	14.1
Social Sciences	242	14.0
Missing	50	1.8
Faculty Graduated		
Education	1396	80.7
Other	334	19.3

Table 1: d*emographic characteristics of teachers*

Design and data collection instrument

The researchers collected data via the In-Service Training Needs of Teachers scale, a 5-point scale ranging from "Never need" to "Strongly need" and consisting of 52 items. They developed the data collection instrument using the following steps.

First, the researchers identified basic themes and constructed an initial item pool, drawing from previous studies and other related documents (MNE training course catalogues and teacher education programs). After conducting interviews with 10 K-8 teachers, the researchers formed the initial scale. To maximize the face and content validity of the instrument, the researchers solicited expert opinions from seven academics from the Curriculum and Instruction, Elementary Math and Science, Educational Leadership and Administration, and Educational Evaluation and Measurement departments, seven K-8 teachers, two experts from the In-Service Teacher Training Department of MNE, and two district directors. After acting on the expert opinions, the researchers reduced the scale to 52 items. The researchers then conducted a pilot study with 490 teachers.

To examine the factor structure of the scale, the researchers performed an exploratory factor analysis (EFA). Before the analysis, the researchers tested the assumptions of the EFA,

which included proof of metric variables, correlations above .30, Bartlett's Test of Sphericity, KMO (Kaiser-Mayer-Olkin) value (>.60), multivariate normality, and absence of outliers. Results showed that it was possible to continue the factor analysis. To the 490 teachers' data the researchers applied EFA–common factor analysis with the oblimin rotation method. EFA yielded for eight factors with eigenvalues greater than 1.0, and 52 items with factor loadings greater than .30. The eight-factor solution accounted for 69% of the variance. The factors were labeled as professional teaching knowledge, content area knowledge, technology use in education, introduction for national and international exams, guidance and special education, communication and social skills, self-development, and development of social consciousness. Cronbach Alpha coefficients of each factor ranged from .86 to .95.

Data analysis

To describe teachers' reports of their needs for in-service training content, the researchers summarized the survey data using descriptive statistics and presented the results in terms of means and standard deviations. The scale's range (4) was divided by the number of scale points (5), and the result (0.80) was used to determine the size of each unit of a transformed scale. Therefore, the researchers interpreted the five-point scale so that a response of 5.00-4.21 signified "strong need," 4.20-3.41 indicated "regular need," 3.40-2.61 indicated "occasional need," 2.60-1.81 indicated "rare need," and 1.80-1.00 indicated "no need."

To measure the effects of demographic characteristics on teachers' expressed in-service needs, the researchers analysed the data using a one-way analysis of variance (ANOVA). The ANOVA used eight dependent variables, namely, needs of professional teaching knowledge, content area knowledge, technology use in education, introduction for national and international exams, guidance and special education, communication and social skills, self-development, and development of social consciousness; and four independent variables, gender, teaching experience (0–5 years, 6–10 years, 11–15 years, and 16 years or more), subject area (classroom, math, science and technology, social studies, Turkish, and English), and teachers' college background (education or other). The researchers checked the necessary assumptions before performing the analyses, checked variable normality using the Kolmogorov-Smirnov and Shapiro-Wilk normality tests and by inspecting skewness and kurtosis values, and checked variance homogeneity using Levene's test, which resulted in p>.05 suggesting equal error variances among groups for all dependent variables.

Results

Content of in-service training programs

Broadly speaking, the responding teachers reported little need for or interest in receiving in-service training on any of the content topics named in the survey. The most-needed in-service training topic was guidance and special education. Even so, according to the scale these topics were needed only occasionally. According to the transformed scale values, teachers rarely or occasionally need in-service training on other content. The least-needed training category was communication and social skills. The content of in-service training programs teachers reported needing (albeit at low levels) is presented in Table 2.

Categories	*M*	*SD*
Guidance and Special Education	3.13	.82
Introduction for National and Internationals Exams	2.96	.94
Self-Development	2.79	.84
Professional Teaching Knowledge	2.63	.75
Technology Use In Education	2.62	.92
Subject Area Knowledge	2.58	.79
Development of Social Consciousness	2.29	.84
Communication and Social Skills	1.93	.82

Table 2: teacher needs with respect to general content categories (N=1730)

To examine the teachers' ratings of content categories in more detail, responses for each content category were analysed separately.

First, in the guidance and special education category, teachers reported that they regularly needed training on education of gifted students. Moreover, teachers occasionally needed in-service training on working with students with learning disabilities, students needing psychological help, and education of poor children who work and are at risk of dropping out. Other requested topics included prevention of crime and violence in educational institutions, providing for individual differences in education, and educational coaching. However, even though educational coaching is a new role mandated by MNE, teachers did not report much need for it.

Second, in the introduction for national and international exams category, teachers reported regularly needing training on learning about the Progress in International Reading Literacy Study (PIRLS), the Trends in International Mathematics and Science Study (TIMSS), and the Programme for International Student Assessment (PISA). Furthermore, teachers reported occasionally needing in-service training on the Study for Determination of Student Achievement (OBBS) and the changing Turkish transition system from primary education to secondary education.

In the self-development category, teachers reported that they occasionally needed training in foreign languages, project planning and management, health and first aid knowledge, speed reading techniques, and problem solving methods. Although the researchers expected that public speaking skills would be a high priority, teachers reported that it was rarely needed. Apparently, most teachers believe that their public speaking performance is just fine or that their public speaking is not likely to be improved by the kinds of in-service training workshops that they have experienced heretofore.

In the professional teaching knowledge category, teachers reported only occasionally needing training on new approaches in education, changing paradigms and educational systems, planning social activities, and providing guidance to prospective teachers. They reported rarely needing training on teaching methods and principles, assessment and measurement techniques, learning and development, instructional planning, basic classroom management methods, and ethics in education.

In the category technology use in education, teachers reported regularly needing in-service training on tablet and smart board usage. Moreover, teachers reported occasionally needing in-service training on preparing effective teaching materials with Flash and similar software and on preparing effective teaching material with MS Office software. For the remainder of the technology topics, teachers rated them as rarely needed.

In the category content area knowledge, teachers only occasionally said that they needed in-service training on learning new topics in their subject area, developing and using learning materials and activities in their subject areas, and curriculum changes and reforms. For the other content subcategories, teachers reported rarely needing training.

In the category development of social consciousness, teachers reported rarely needing

each item presented in Table 3.

Finally, under the category communication and social skills, teachers reported that they rarely needed in-service training on communication with students and parents, adapting to a new workplace, or on communication with colleagues. Teachers seemed to feel that they were already sufficiently proficient as communicators and socially adept leaders and therefore needed no in-service education in this area. All results are summarized in Table 3.

	M	*SD*
Guidance and Special Education		
Education of gifted students	3.41	1.05
Education of students with learning disabilities	3.26	.98
Education of students who need psychological help	3.20	.98
Educational coaching	3.13	1.05
Education of children who work and are at risk	3.08	.99
Prevention of crime and violence in educational institutions	2.99	1.03
Meeting individual differences and needs in education	2.83	1.00
Introduction for National and International Exams		
Introduction to PIRLS, TIMSS and PISA	3.50	1.21
Introduction to national exam ÖBBS	2.76	1.11
Introduction to changed transition system (SBS)	2.62	1.07
Self-Development		
Learning a foreign language	3.13	1.34
Project planning/management	2.97	1.11
Health and first aid knowledge	2.84	1.10
Speed reading techniques	2.78	1.15
Problem solving methods	2.70	1.03
Effective public speaking	2.30	1.09
Professional Teaching Knowledge		
Changing paradigms and educational systems	3.07	1.04
New approaches in education	2.94	1.02
Planning a social activity	2.77	1.02
Guidance for prospective teachers	2.61	1.15
Teaching methods and principles	2.58	.97
Assessment and measurement techniques	2.57	1.03
Learning and development	2.56	1.04
Instructional planning	2.55	.99
Basic methods of classroom management	2.50	1.05
Ethics in teaching	2.09	.99
Technology Use in Education		
Tablet and smart board usage	3.57	1.18
Preparing effective teaching material with Flash and similar software	2.94	1.19
Preparing effective teaching material with MS Office software	2.76	1.20
MS Office programs usage (Word, Excel, PowerPoint, etc.)	2.53	1.19
Projector use	2.44	1.16
Preparing instructional content with the help of the Internet	2.41	1.18
Basic computer skills	2.22	1.12
Internet usage (Search, download, email, etc.)	2.03	1.09
Subject Area Knowledge		
Curriculum changes/reforms	2.87	1.00
Developing learning material/activity in my subject area	2.84	1.02
Usage of learning materials in my subject area	2.66	1.02
Learning new topics in my subject area	2.62	1.04
Examining/selecting educational sources and tools in my subject area	2.59	1.02
Helping students to develop positive attitudes in my subject area	2.56	1.05
Relating my subject area to daily life	2.35	.99
Revising topics in my subject area	2.13	.95
Development of Social Consciousness		
Basic disaster preparedness	2.57	1.08

Media literacy	2.48	1.05
Protection of the environment and sustainable development	2.26	.99
Consumer consciousness and rights	2.17	.98
Democratic citizenship and human rights	2.12	.93
Preserving cultural and environmental values	2.10	.93
Communication and Social Skills		
Communication with students	1.98	.93
Communication with parents	1.97	.92
Adapting to new workplace (city, district, grade level)	1.92	.95
Communication with colleagues	1.85	.91

Table 3: reported in-service training needs of teachers

Audiences of in-service training programs

The researchers used ANOVA to examine whether demographically different kinds of teachers reported needing different training program content. The results showed few significant differences in training needs reported with respect to teachers' demographic characteristics. The null hypothesis was that there would be no significant difference in teachers' reported needs depending on their demographic characteristics. The ANOVA analysis failed to reject the null hypothesis for teacher characteristics of gender, subject area, teaching experience, and college affiliation with regard to needs on professional teaching knowledge, development of social consciousness and communication and social skills. However, ANOVA did reject the null hypothesis for gender (F[1,1645]=5.55, p<.05, η^2=.00) and teaching experience (F[3,1679]=4.72, p<.05, η^2=.01) with regard to guidance and special education needs. Less experienced female teachers (M=3.50, SD=.91) were more likely to report needing in-service training in managing special-needs students than were more experienced teachers (M=2.95, SD=.92) and male teachers (M=3.21, SD=1.01).

Similarly, ANOVA results showed significant effects of gender (F[1,1633]=4.79, p<.05, η^2=.00), subject area (F[5,1663]=2.33, p<.05, η^2=.01), and teaching experience (F[3,1665]=5.60, p<.05, η^2=.01) on teacher reports of needs for introduction for national and international exams. Again, less experienced female teachers (M=3.63, SD=1.17) reported needing in-service training to prepare children to excel on these tests more than did more experienced teachers (M=3.13, SD=1.16) and male teachers (M=3.22, SD=1.25).

With regard to self-development needs, ANOVA test results were statistically significant with respect to subject area (F[5,1679]=7.22, p<.05, η^2=.02), teaching experience (F[3,1683]=2.92, p<.05, η^2=.01) and the faculty from which they graduated (F[1,1709]=8.99, p<.05, η^2=.01). Furthermore, technology use in education needs of teachers revealed significant differences with regard to gender (F[1,1649]=6.88, p<.05, η^2=.00), subject area (F[5,1679]=2.33, p<.05, η^2=.01), and teaching experience (F[3,1682]=15.98, p<.05, η^2=.03). However, all these variables had very small effects on reported need levels for preparation for national and international exams. That is, the differences between teachers with respect to their gender and teaching experience on these variables were statistically significant but not practically significant.

Discussion

The purpose of this study was to determine the kinds of professional development programs that Turkish K-8 teachers report needing. Close examination reveals that teachers reported relatively higher levels of need for training in topics not taught in education departments as courses (i.e. changing paradigms and educational systems, new approaches in education,

planning a social activity, introduction of national and international exams, gifted education, smart board usage, and guidance for prospective teachers). It makes sense that teachers did not clamor to repeat their teacher preparation curricula. But the low levels of interest expressed in topics related to change suggests teachers who are not deeply committed to continuous improvement or to trying novel approaches.

Guskey (2003) found that the most frequently cited professional development needs of teachers were associated with reform initiatives, and other researchers strongly support the importance of teachers' professional development for the success of reform movements (Crevola, Hill, & Fullan, 2006; Guskey, 2002; Nye, Konstantopoulos, & Hedges, 2004; Sandholtz, 2002). However, in this study, although Turkish primary school curricula have experienced many reforms and been subject to radical changes, participants reported only rarely or occasionally needing training in curriculum changes/reforms, learning new topics in their subject area, and revising topics in their subject area. These results conflict with the current literature, which reports that Turkish teachers do not feel competent about new curricular content knowledge (Elmas et al., 2014; Taneri & Engin-Demir, 2011).

Why do Turkish teachers not report needing to participate in such programs if they do not feel competent in teaching reformed curricula? One possible reason might be that participating in too much compulsory and low quality training on the curricular and transition system changes has alienated teachers since they do not see the training programs on educational reforms as helpful (Oztaskin, 2010; Yalin, 2001). These results give key feedback to MNE by suggesting that the teaching force sees little potential value in attending short in-service workshops that concentrate on developing stronger content knowledge, since content knowledge development takes a relatively long time and may expose professional weaknesses that teachers are reluctant to reveal.

Considering that some of Turkey's educational reforms focus on technological changes, the most important issue must be improving and supporting teachers in accordance with these technological changes and developments. Literature confirms that teachers who participated in technology related training programs were found to be more confident and have greater self-efficacy in integrating technology into their instruction and more convinced of its advantages in supporting students' learning of English language, math, science, and social studies (Bennison & Goos, 2010; Lee & Buxton, 2013; Lumpe, Czerniak, Haney, & Beltyukova, 2012). In the category technology use in education, teachers rated the need for training in using smart boards the highest. As mentioned in the introduction, smart boards will be widespread in Turkish schools in the near future, and teachers reported that they are anticipating the need for assistance to prepare to use this technology. The literature on professional development is consistent with these findings, reporting that the teachers lack the technological knowledge, skills, and training to use smart boards and tablet computers effectively in their classrooms (Ciftci, Taskaya, & Alemdar, 2013; Kayaduman, Sirakaya, & Seferoglu, 2011).

When looking more closely at teacher ratings of the category development of social consciousness, researchers found unexpected results. It is widely believed that one of the pillars of a good society is advanced individual consciousness (Scott, 2005). Therefore, it is difficult to explain teachers' reports of low need for professional development regarding social consciousness, unless they believe that a complex and sensitive topic like developing social consciousness may not be addressed effectively or helpfully in a typical in-service development program. It is also possible that, as with content knowledge results, the responding teachers believe that their social consciousness needs no further development or challenge. The survey was administered in fall 2011. It would be interesting to compare these results with the results of a similar set of questions administered after the nationwide Gezi protest movement that swept Turkey in spring and summer 2013.

An examination of the analysis of variance results reveals that our data are not similar to those published in the international literature, which concludes teachers' reports of their in-service training needs differ significantly with medium to large effects according to gender, teaching experience, subject matter, and school type (Ball & Cohen, l999; Hursen, 2012; Johnson & Kardos, 2002; Yuen & Ma, 2002). To our surprise, this study revealed that for Turkish teachers none of these variables mattered. Whether one is female or male, novice or experienced in teaching, teaches math, English, or any other subject, graduated from a teacher's college or not, none of these teacher characteristics were associated with large differences in teachers' reported training needs and training program preferences. It is difficult to explain these results, except in terms of a strong and overriding negative halo effect. That is, perhaps all Turkish teachers surveyed believe that in-service training is a waste of their time and energy.

Applied scholars in the field of teacher education should further examine these findings: (a) whether Turkish primary school teachers really feel so well-qualified in their subject matter areas that they do not need any additional content knowledge or skills; and (b) whether primary school teachers in Turkey perceive the in-service training programs they typically undergo as inconvenient, poorly designed, practically worthless exercises. If the first possibility explains the case, a strong need exists to change the perceptions of Turkish teachers who believe that they are qualified enough to continue teaching the youth of the country without adding new knowledge and skills. Otherwise, the way Turkish society perceives the teaching profession—"If you cannot be anything, you will be a teacher"—will not change for a long time. If Turkish teachers have found that required in-service training programs are unattractive in format and in schedule, are not aligned with their needs, or never seem to improve, MNE needs to address these problems. Guskey (2002) argues that one of the reasons for the failure of in-service training programs is the failure to pay attention to teacher motivation. As the literature suggests, MNE needs to consider offering incentives, such as salary increases, designing in-service training programs that are imperative for recruitment or preferment because "the incentives, challenges, support and feedback occurring in teachers' work context [give] them the opportunity to gain new competencies" (Clement & Vandenberghe, 2000, p. 86). In answering the overarching question "How can we best design professional development accordingly the needs of teachers, which lies at the heart of nearly every educational effort to improve student achievement?" attention must also be paid to developing state of the art professional development programs. To ensure this, scholars and the leadership of MNE must analyse the current findings on teachers' design preferences for effective professional development and incorporate design features of effective professional development programs well established in the international research literature (eg. Borko, Jacobs, & Koellner, 2010; Desimone, 2011; King, 2011; Opfer & Pedder, 2011; Smylie, 2014).

Conclusion

This study focused on exploring one essential factor—the content of training—affecting the effectiveness of teacher development training in cases where national education reforms have been mandated. Teacher perceptions naturally have consequences. If the content of mandatory professional development programs is seen to be redundant or irrelevant to teacher needs, little or no useful learning will take place. If teachers believe that their training is weak or inconvenient, the training will fail to support the intended reforms. Ministries should begin think of teachers as customers to whom they should market and whom they must persuade that the improved design of training really is new and improved in

specific ways. This study of Turkish primary school teachers in a time of intensive national reforms provides a less than adequate empirical basis for developing a more effective and teacher-centered, needs-based professional development plan for the entire Turkish education system. However, the study does raise doubts about the validity of the assumption, widely held in national and state ministries and departments of education, that the effectiveness of the national teacher corps can be improved rapidly to achieve the goals of national reforms by simply prescribing in-service training content without having a clear vision of the pedagogical content and skills teachers must have, assessing teachers for their current capabilities, developing well-designed programs, and, finally, evaluating the effectiveness of those programs.

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