Full Length Research Paper

Identification of inclusive education classroom teachers’ views and needs regarding in-service training on special education in Turkey

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The aim of the study is to identify the views and needs of classroom teachers providing inclusive education in Turkey regarding in-service training on special education. Research was conducted in Bolu Province of Turkey with 222 teachers. Identification Tool for Teachers’ In-Service Training Needs (ITTIST) developed for the current study was used in this research. Reliability and validity studies for ITTIST were undertaken as the first step followed by analysis of the scores obtained from the teachers based on ITTIST through descriptive analysis and one-way analysis of variance. Results showed that in-service training needs of inclusive education classroom teachers related to special education were at high levels. The study also presented teachers’ need for general knowledge about students with special educational needs (SEN), social skills training, use of least restrictive environments, and forming goals and assessment. Obtained results were discussed in terms of increasing teacher capacity in inclusive education practices.

Key words: Inclusive education, in-service training, needs of teachers, teacher expectations, students with special needs.

INTRODUCTION

Inclusive education of students with SEN is a matter of human rights, whereby access to quality education is coupled with respect and equity in the learning environment (Moran, 2007; Rioux and Pinto, 2010; Killoran et al., 2014). Inclusive education practices in Turkey started in 1983 following the enactment of students with SEN Act and since then a growing number of students with SEN has been educated with their peers in general education schools. Today, 66,941 primary, 80,107 secondary and 14,247 high school students benefit from inclusive practices based on Decree Law 573 on Special Education (MoNE, 2014a). However, it is not possible to claim that inclusive practices are organized adequately and effectively in Turkey (Aydin and Şahin, 2002; Sucuoğlu, 2004). It is also stated in literature that there are various obstacles that prevent inclusive to be effective (Sindelar, 1995). One of the leading obstacles to efficient inclusive education is the lack of teacher training on inclusive education prior to service (Evans et al., 1996). Classroom teachers lack the necessary training and the required skills to provide appropriate practices for SEN students.

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Therefore, many students with learning difficulties or challenging behaviors cannot benefit from classroom practices to the desired extent. Consequently, it is crucial for classroom teachers to utilize the most effective methods, strategies, and techniques for inclusive classroom settings (Author, 2013; Evans et al., 1996).

Various studies have been undertaken in Turkey related to inclusive education practices. These studies include teachers' problems, expectations and suggestions about inclusive education (Sadioğlu et al., 2013) and teachers' competencies in inclusive practices (Babaoğlan and Yılmaz, 2010). Teachers' attitudes towards inclusive education (Gökdere, 2012) and their views (Demir and Аçar, 2011; Erinçkin et al., 2012; Sadioğlu et al., 2012) were also investigated. It was identified in these studies that the majority of the teachers have problems in teaching and do not receive sufficient support and training from guidance teachers and their schools (Babaoğlan and Yılmaz, 2010; Sadioğlu et al., 2012). Researches also present those classroom teachers have negative attitudes and views regarding inclusive education and do not support inclusive education practices. Solutions proposed in all studies commonly emphasize the need for quality and effective in-service training and provision of knowledge regarding students with SEN and inclusive education (Babaoğlan and Yılmaz, 2010; Demir and Аçar, 2011; Erinçkin et al., 2012; Sadioğlu et al., 2012).

Although in-service training is considered to be crucial in education by teachers and politicians, it is stated to be ineffective to meet the needs of the participants and therefore does not provide the expected impact (Morrison and Brady, 1985, cited in Calabrese and Bowser, 1988). In-service training should meet the needs of teachers and include subjects, knowledge and skills needed by them (Özer, 2004). Studies emphasize that in-service training activities should be organized after training needs are identified (Buell et al., 1999; Calabrese and Bowser, 1988; Karagiorgia and Symeoub, 2007; Schlichter and Olenchak, 1992) through collection of teacher views (Kanlı and Yağbasan, 2002; Turgut, 2012).

There are studies in literature that investigate the general in-service needs of classroom teachers (Calabrese and Bowser, 1988; Karagiorgia and Symeoub, 2007; Schlichter and Olenchak, 1992), in-service needs regarding specifically inclusive practices (Buell et al., 1999), and what teachers would like to learn about special education (Laprairie et al., 2010). Investigating teacher needs about inclusive education through these studies, Buell et al. (1999) found that classroom teachers need training on preparing individualized education plan, adapting materials and the curriculum, providing individualized support and writing behavioral goals.

Although there are no studies in Turkey focusing on in-service training needs of inclusive education classroom teachers related to special education, there are various studies on the in-service training needs of classroom teachers (Gültekin et al., 2010; Tanyel, 1999) and some of these studies identify the need for training on special education topics. For instance, Ergin et al. (2012) identified that teachers need training on attention deficit, learning difficulty and hyperactivity, while Gültekin et al. (2010) mentioned training needs related to support for students with SEN. A recent comprehensive study by the Ministry of Education (MoNE, 2008) shows that approximately half of the teachers (47.3%) need knowledge about students' characteristics such as special learning difficulties, attention deficit and hyperactivity disorders, autism and gifted students. While in-service training needs of teachers are presented in Turkey with the help of studies, the content and topics of these activities are determined by MoNE General Directorate of Special Education Guidance and Counselling Services. It is believed that the number of studies that investigate teachers' in-service training needs should be increased and in-service training activities provided by MoNE should be given high priority. No studies are available in Turkey about what topics are considered important by classroom teachers in students with SEN. Topics considered important by teachers regarding students with SEN education are thought to be related to their attitudes towards these students. Therefore, identification of issues regarded to be crucial by teachers as well as their in-service training needs is considered important and that obtained findings will highly contribute to literature. In this context, current study aims to identify in-service training needs of inclusive education teachers regarding special education.

The study sought answers to the following questions:

1. What are the teachers' views regarding in-service activities?
2. What are the teachers' needs regarding in-service activities related to special education?
3. What topics do teachers regard as important in the education of students with SEN?
4. What are the effects of teacher characteristics on their in-service training needs?

**METHODOLOGY**

**Participants**

Working group of the study was composed of 222 primary school teachers at schools with students with SEN in Bolu Province, Turkey. Teachers' characteristics are provided in Table 1.

Table 1 presents that 54.1% were in 36-55 age range; 54.1% of the teachers were females and 45.9% were males. It is observed that the teachers taught first (31.1%) or second (32.9%) classes in general and the majority graduated from classroom teaching
Table 1. Demographic characteristics of respondents.

<table>
<thead>
<tr>
<th>Age</th>
<th>n</th>
<th>%</th>
<th>Years of teaching experience</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 25</td>
<td>6</td>
<td>2.7</td>
<td>&lt; 1</td>
<td>7</td>
<td>3.2</td>
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<tr>
<td>25-35</td>
<td>82</td>
<td>36.9</td>
<td>1-5</td>
<td>26</td>
<td>11.7</td>
</tr>
<tr>
<td>36-55</td>
<td>120</td>
<td>54.1</td>
<td>6-10</td>
<td>37</td>
<td>16.7</td>
</tr>
<tr>
<td>&gt; 55</td>
<td>14</td>
<td>6.3</td>
<td>&gt; 10</td>
<td>152</td>
<td>68.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Students diagnosed/ Undiagnosed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Diagnosed 102 54.1</td>
</tr>
<tr>
<td>Male</td>
<td>Undiagnosed 120 45.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class level</th>
<th>Class size</th>
<th>Graduated Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>10-20</td>
<td>Primary school 159 71.6</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>20-30</td>
<td>Others 63 28.4</td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>&gt;30</td>
<td></td>
</tr>
<tr>
<td>4&lt;sup&gt;th&lt;/sup&gt;</td>
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</tr>
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</table>

<table>
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<tr>
<th>Educational level</th>
<th>Graduated Program</th>
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</thead>
<tbody>
<tr>
<td>Associate</td>
<td></td>
</tr>
<tr>
<td>License</td>
<td></td>
</tr>
<tr>
<td>Master's degree</td>
<td></td>
</tr>
</tbody>
</table>

departments of faculties of education (71.6%) and had more than 10 years of teaching experience (68.5%). The number of students in the classrooms of participating teachers was either between 20 and 30 or more than 30.

Students with SEN in the classrooms of these teachers were composed of two groups. First group included students referred to school by Research and Guidance Centers as inclusive students (54.1%, n=102) who were diagnosed with intellectual disabilities, behavioral-emotional disorders and/or learning difficulties. The students in the second group did not have formal diagnoses but considered markedly slower/different compared to peers by their teachers in academic achievement and behavior (45.9%, n=120). Both groups were included in the study since the families of these children did not consult Research and Guidance Centers although referred by their schools for fear of being labeled as “handicapped” (Author, 2011). Therefore, these students were also regarded as students with SEN in the current study.

Research model

Current study is a descriptive study that examined the special education related in-service training needs of primary school teachers (1-4<sup>th</sup> grades) working in inclusive classrooms.

Data collection instrument

Identification Tool for Teachers’ In-Service Training Needs (ITTIST) developed for the current study was used in the research. ITTIST is composed of three sections. There are nine questions in the first section that seek knowledge regarding teachers’ classroom and personal lives and the second section consists of nine questions aiming to identify teachers’ views regarding in-service training activities as well as information about these activities. Questions in the second section are related to the number of in-service training activities teachers attended, the content of these trainings, the degree of usefulness of these trainings, the reasons for preferring these activities, the institutions they would like to receive in-service activities from and the time and location they would prefer for these activities.

The third section includes a total of 40 items and collects two types of data. First data group can be obtained by teacher assessments on their needs for special education related in-service trainings. Teachers mark zero (0) if the topic on special education is never/not necessary for them, one (1) if the topic is partially necessary, and two (2) if the topic is highly necessary. The total score that can be obtained from the tool is between 0 and 80. The topics in the tool include the characteristics of students with SEN, laws and family services on special education, preparation of individualized education programs, teaching of academic and non-academic skills, teaching methods, and assessment and controlling problem behaviors. Second group of data is obtained by having teachers assess the topics they see as crucial in the education of students with SEN. A similar assessment system is included in Gresham and Elliott’s (1990) Social Skills Rating System and social skill in the each item of scale is scored zero (0) if it is not regarded important for classroom achievement, one (1) if it is important, and two (2) if it is very important (Gresham and Elliott, 1990). In the current study, inclusive classroom teachers were expected to identify the topics they found important in the education of students with SEN by using the importance dimension of ITTIST.

ITTIST development phases. Development of ITTIST consisted of four phases: preparing the test plan and writing test items, undertaking validity and reliability studies, and finalizing the test.
1. Preparing the test plan and writing test items. ITTIST was prepared by examining literature (Buell et al., 1999; Calabrese and Bowser, 1988; Karagiorgia and Symeou, 2007; Schlichter and Olenchak, 1992) and classroom teaching undergraduate programs.

2. Validity Studies. In the current study, content and construct validity were used in validity studies of ITTIST. A total of six experts (two from assessment-evaluation field and four from in-service training and special education fields) were consulted for content validity. The experts were asked to evaluate each item in ITTIST for dimensions of intelligibility, suitability for the represented behavior, topic, language, and expression by rating (1: Poor, 5: Very Good) each item, and make notes of their suggestions on the scale. Later, the means, standard deviation, and coefficient of variation for experts’ assessment were calculated for each item. Results of analyses showed that the smallest of evaluation scores for ITTIST items was 3.85 (range: 3-5), the highest standard deviation was 0.8 (range: 0-1.90) and the highest coefficient of variation was 45% (range: 0.26% - 45.0%). Since these values did not exceed the criteria, no items were removed from ITTIST. However, expressions regarding the statements were revised following the suggestions. For construct validity, in the first phase, principal components factor analysis - an exploratory factor analysis - was used to identify construct validity followed by item-total correlations.

**Factor analysis.** Firstly, Kaiser-Meyer-Olkin (KMO) and Barlett Tests were implemented. Yurdagül (2010) reports that if KMO values, regarded as suitability criteria, falls below .60 the data set cannot demonstrate factoring but they will when KMO values are closer to 1 (Cited in Yurdagül, 2010). According to KMO test results for ITTIST, suitability of ITTIST data set for factor analysis was “perfect” (KMO=.92). Bayram (2004) states that correlation matrix obtained from Barlett test is used to test whether it is a unit matrix (Cited in Yurdagül, 2010). Barlett test result on ITTIST data ($\chi^2$=7,489.93, $SD$=.78, $p$=.00) was found significant. These results demonstrated that data set was suitable for factor analysis.

Principal components analysis showed that 40 items in the scale were collected under seven factors whose Eigenvalues were higher than 1. The variance explained by the seven factors was found to be 70.59%. Common variance for the seven factors identified for the items was found to change between 51 and 88. Accordingly, these seven factors observed as important factors in the analysis explain the majority of the total variance in the items and the variance related to the scale. According to rotation results, it was seen that there were 16 items in the first factor, three in the second, six in the third, five in the fourth, four in the fifth, two in the sixth, and one in the seventh factor. All factorial load values were .46 and above. However, since it was reported that item numbers in any dimension cannot be less than three (Comrey, 1988) and there is only one item in the seventh factor, the factor structure was first limited to six, and then to five, and factor analysis procedure accordingly was repeated.

Table 2 presents the factor load matrix of ITTIST items according to factor analysis results. Results of factorial rotation showed that the first factor of the scale was composed of 17 items (24, 25, 26, 12, 13, 14, 15, 16, 17, 18, 19, 51, and 52), the second factor items (3, 10, 11, 5, and 6), the third 5 items (7, 8, 9, 10, 11), and the fifth 4 items (20, 21, 22, 23). Load values of items in the first through fifth factors change between .52-.91, .46-.73, .54-.77, .63-.85, and .38-.74 respectively.

Factors were named by taking it em contents into consideration. The first factor was named “teaching, assessment and behavior control” since all items here were related to teaching methods, assessment and behavior control. Items in the second factor were about individualized education program (IEP) development and teaching academic skills. Therefore, this factor was named “IEP preparation and academic skill teaching”. Items in the third factor were related to general knowledge about SNS. As a result, this factor was named “general knowledge about SNS”. Items in the fourth factor were related to legislations about special education and services for parents so that this factor was named “legislation and family”. Finally, items in the fifth factor were related to teaching non-academic skills. Therefore, this factor was called “non-academic skills teaching”.

**Item-Total Correlations.** As Table 2 displays, item-total correlation coefficients for item analysis in the validity study changed between 0.26 and 0.75. Table 3 shows eigenvalues, variance explained, cumulative variance and Cronbach's alpha each factor.

Explained total variance gives the values before and after the rotation. Results of analysis represent that all factors in the initial solution have eigenvalues greater than 1. When Table 3 is analyzed, five factors emerge. The first factor explains 37.49% of the total variance, the second factor explains 5.72%, and the third factor explains 1.97%, fourth factor explains 1.91%, fifth factor explains 1.25%. Results of analysis display that five factor structure of ITTIST explains 67.79% of the variance regarding the scale, and the common variance for these five factors changed between 30-87%.

**Reliability study.** Cronbach Alpha was used to calculate reliability of ITTIST. Table 3 presents the Cronbach Alpha values for the five factors of the scale. Cronbach Alpha values were found to be .96, .85, .83, .88, and .82 for the first through fifth factors respectively and .95 for the whole scale. Reliability coefficients of .70 and higher for psychological tests are generally regarded to be sufficient for reliability of test scores.

**Finalizing the Test. These** procedures demonstrated that ITTIST was a reliable and valid scale that could be used to identify special education related in-service training needs of inclusive classroom teachers. Test items were reorganized based on factor analysis results and ITTIST received its final form.

**Data collection and analysis**

Necessary permits were obtained from Bolu Directorate of National Education and 222 voluntary teachers were contacted to answer the scale. SPSS 21.0 package program was used to analyze the data and descriptive statistics were utilized. Frequencies, means and standard deviations of teachers’ ITTIST scores were calculated. Levene F Test and Single Sample Kolmogorov Smirnov (K-S) test were used to identify variance homogeneity and score distribution normality respectively. It was observed that condition of variance homogeneity was met ($p>.05$ for full scale and sub scales) and distribution of scores was ($p=.00$) normal. One-way analysis of variance (ANOVA) was utilized to determine the effects of teachers’ demographic characteristics on their in-service training needs. $p<.05$ was accepted as level of significance in all tests.

**RESULTS**

Teachers’ participation in in-service training activities and their views regarding these activities

Teachers’ responses in the second section of ITTIST to
Table 2. Item factor loadings and item-total correlation matrix in ITTIST.

<table>
<thead>
<tr>
<th>No</th>
<th>Factors</th>
<th>Items</th>
<th>1. Item-total correlation</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5. Item-total correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>Assessment of problem behaviors</td>
<td>.91</td>
<td></td>
<td>.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Identification of problem behaviors</td>
<td>.89</td>
<td></td>
<td>.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Identification and implementation of appropriate methods to increase</td>
<td>positive behaviors</td>
<td>.88</td>
<td>.72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Using preventive strategies for problem behaviors</td>
<td>.87</td>
<td></td>
<td>.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Forming, teaching and monitoring classroom rules</td>
<td>.87</td>
<td></td>
<td>.72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Using effective classroom management strategies</td>
<td>.86</td>
<td></td>
<td>.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Identification and implementation of effective rewards to increase</td>
<td>appropriate behaviors</td>
<td>.86</td>
<td>.72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Using cooperative teaching method</td>
<td>.81</td>
<td></td>
<td>.69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Using brain storming method</td>
<td>.80</td>
<td></td>
<td>.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Using induction method</td>
<td>.79</td>
<td></td>
<td>.69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Using inquiry learning method</td>
<td>.79</td>
<td></td>
<td>.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Using discovery learning method</td>
<td>.79</td>
<td></td>
<td>.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Monitoring and recording development of skills following teaching</td>
<td>.77</td>
<td></td>
<td>.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Providing detailed assessment before teaching</td>
<td>.69</td>
<td></td>
<td>.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Making broad and general assessment before teaching</td>
<td>.68</td>
<td></td>
<td>.60</td>
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<tr>
<td>32</td>
<td>Grading and graduation</td>
<td>.67</td>
<td></td>
<td>.61</td>
<td></td>
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</tr>
<tr>
<td>38</td>
<td>Opinions of punishment methods</td>
<td>.51</td>
<td></td>
<td>.48</td>
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<tr>
<td>16</td>
<td>Preparing teaching materials</td>
<td>.73</td>
<td></td>
<td>.52</td>
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</tr>
<tr>
<td>17</td>
<td>Teaching academic skills</td>
<td>.72</td>
<td></td>
<td>.50</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>18</td>
<td>Preparing different teaching activities</td>
<td>.69</td>
<td></td>
<td>.53</td>
<td></td>
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</tr>
<tr>
<td>12</td>
<td>Preparing individualized education program</td>
<td>.69</td>
<td></td>
<td>.46</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>13</td>
<td>Adopting teaching for students with special needs</td>
<td>.68</td>
<td></td>
<td>.53</td>
<td></td>
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<tr>
<td>15</td>
<td>Forming short-term goals for academic skills</td>
<td>.68</td>
<td></td>
<td>.49</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>19</td>
<td>Ensuring the use of academic skills at different times and in different</td>
<td>environments</td>
<td>.66</td>
<td>.30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Forming annual goals for academic skills</td>
<td>.46</td>
<td></td>
<td>.26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Knowledge about learning difficulties</td>
<td>.76</td>
<td></td>
<td>.45</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Knowledge about students with autism</td>
<td>.71</td>
<td></td>
<td>.42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Knowledge about intellectual disabilities</td>
<td>.69</td>
<td></td>
<td>.41</td>
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</tr>
<tr>
<td>6</td>
<td>Knowledge about other disabilities (vision, hearing, physical etc.)</td>
<td>.62</td>
<td></td>
<td>.51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Knowledge about gifted students</td>
<td>.61</td>
<td></td>
<td>.49</td>
<td></td>
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</tr>
<tr>
<td>3</td>
<td>Knowledge about emotional and behavioral problems</td>
<td>.53</td>
<td></td>
<td>.50</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>9</td>
<td>Legal rights of families of students with special needs</td>
<td>.84</td>
<td></td>
<td>.46</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Existing support systems for families of students with special needs</td>
<td>.78</td>
<td></td>
<td>.53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Needs of families of students with special needs</td>
<td>.77</td>
<td></td>
<td>.46</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Knowledge about special education acts</td>
<td>.65</td>
<td></td>
<td>.45</td>
<td></td>
<td></td>
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<tr>
<td>11</td>
<td>Social Institutions and services for families of students with special</td>
<td>needs</td>
<td>.62</td>
<td>.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Teaching self –care and daily living skills</td>
<td>.73</td>
<td></td>
<td>.57</td>
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<td></td>
<td></td>
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<tr>
<td>20</td>
<td>Teaching social skills</td>
<td>.72</td>
<td></td>
<td>.54</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Ensuring the use of non-academic skills at different times and in different</td>
<td>environments</td>
<td>.65</td>
<td>.54</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Using direct teaching method</td>
<td>.38</td>
<td></td>
<td>.52</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

questions regarding in-service training needs were analyzed and frequencies were calculated. Results are
Table 3. Eigenvalues, variance explained, cumulative variance and Cronbach’s alpha of each factor.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
<th>Rotation Sums of Squared Loadings</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
<td>Cumulative %</td>
<td>Total</td>
</tr>
<tr>
<td>Factor 1</td>
<td>14.25</td>
<td>37.49</td>
<td>37.49</td>
<td>14.25</td>
</tr>
<tr>
<td>Factor 2</td>
<td>5.72</td>
<td>15.05</td>
<td>52.55</td>
<td>5.72</td>
</tr>
<tr>
<td>Factor 3</td>
<td>1.97</td>
<td>5.20</td>
<td>57.75</td>
<td>1.97</td>
</tr>
<tr>
<td>Factor 4</td>
<td>1.91</td>
<td>5.03</td>
<td>62.79</td>
<td>1.91</td>
</tr>
<tr>
<td>Factor 5</td>
<td>1.25</td>
<td>3.32</td>
<td>66.12</td>
<td>1.26</td>
</tr>
</tbody>
</table>

Table 4. The opinions of teachers in-service training activities.

<table>
<thead>
<tr>
<th>No of events</th>
<th>n</th>
<th>%</th>
<th>Useful?</th>
<th>n</th>
<th>%</th>
<th>Why did you join?</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>72</td>
<td>32.4</td>
<td>Yes</td>
<td>96</td>
<td>43.2</td>
<td>For development</td>
<td>192</td>
<td>86.4</td>
</tr>
<tr>
<td>10</td>
<td>29</td>
<td>13.1</td>
<td>Partly</td>
<td>118</td>
<td>53.2</td>
<td>For it is compulsory</td>
<td>27</td>
<td>13</td>
</tr>
<tr>
<td>1</td>
<td>18</td>
<td>8.1</td>
<td>No</td>
<td>8</td>
<td>3.6</td>
<td>For participation certificate</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>18</td>
<td>8.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>16</td>
<td>7.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Which institution did you receive?</td>
<td>n</td>
<td>%</td>
<td></td>
<td>n</td>
<td>%</td>
<td>Where would you like to take?</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>MoNE</td>
<td>90</td>
<td>42</td>
<td>In my school</td>
<td>100</td>
<td>45</td>
<td>During business hours</td>
<td>52</td>
<td>23.4</td>
</tr>
<tr>
<td>Other locations</td>
<td>44</td>
<td>19</td>
<td>Holiday destinations</td>
<td>63</td>
<td>29</td>
<td>Weekday hours late</td>
<td>68</td>
<td>30.6</td>
</tr>
<tr>
<td>University</td>
<td>88</td>
<td>39</td>
<td>Within the province</td>
<td>59</td>
<td>26</td>
<td>Weekend</td>
<td>33</td>
<td>41.8</td>
</tr>
<tr>
<td>How many days would you like to take?</td>
<td>n</td>
<td>%</td>
<td></td>
<td>n</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Day</td>
<td>19</td>
<td>8.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3 days</td>
<td>80</td>
<td>42.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 week</td>
<td>94</td>
<td>36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than one week</td>
<td>29</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Presented in Table 4.

Findings show that approximately one third of the teachers participated in five (32.4%) in-service training activities, followed by teachers who participated in these activities ten times (13.1%), one or two times (8.1%) and 20 times (7.2%). Approximately half of the teachers (42%) received in-service training from MoNE whereas the other half received in-service training (39%) from universities. Half of the teachers (53.2%) stated that in-service training they attended was partly useful as response to the question “Was the in-service training you attended useful?” Majority of the teachers (86.4%) attended in-service training courses for professional development and the others (13%) stated that they attended these activities since it was compulsory to attend.

The other questions in the Second Section are related to teachers’ views regarding in-service trainings. Study results pointed to the fact that the ratio of teachers who preferred attending in-service training courses in their own schools (45%) was high compared to the ratio of teachers (42.3%) who preferred other locations (holiday destinations (29%), within the province (26%) and other time frames (such as at weekends (41.8%) or different durations (for 1-3 days)).

Teachers’ needs regarding special education related in-service training activities

Table 5 presents the results of descriptive statistics
Table 5. Descriptive statistics obtained from ITTIST.

<table>
<thead>
<tr>
<th>Factors</th>
<th>n</th>
<th>M</th>
<th>Median</th>
<th>Ss</th>
<th>Min.</th>
<th>Max.</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training, assessment and behavior control</td>
<td>222</td>
<td>1.51</td>
<td>1.70</td>
<td>.54</td>
<td>0</td>
<td>2</td>
<td>1.69</td>
<td>2.28</td>
</tr>
<tr>
<td>Preparing IEP and teaching academic skills</td>
<td>222</td>
<td>1.50</td>
<td>1.62</td>
<td>.44</td>
<td>0</td>
<td>2</td>
<td>.93</td>
<td>.63</td>
</tr>
<tr>
<td>General knowledge about students with special education needs</td>
<td>222</td>
<td>1.79</td>
<td>2.00</td>
<td>.33</td>
<td>0</td>
<td>2</td>
<td>2.22</td>
<td>6.00</td>
</tr>
<tr>
<td>Legislation and Family Services</td>
<td>222</td>
<td>1.55</td>
<td>1.6</td>
<td>.46</td>
<td>0</td>
<td>2</td>
<td>.72</td>
<td>.15</td>
</tr>
<tr>
<td>Teaching non academic skills</td>
<td>222</td>
<td>1.66</td>
<td>1.75</td>
<td>.44</td>
<td>0</td>
<td>2</td>
<td>1.84</td>
<td>3.41</td>
</tr>
<tr>
<td>Test General</td>
<td>222</td>
<td>63.0</td>
<td>66.0</td>
<td>14.3</td>
<td>0</td>
<td>80</td>
<td>1.47</td>
<td>2.93</td>
</tr>
</tbody>
</table>

obtained from ITTIST. The highest level of need is represented by 80, the highest score that can be obtained from the scale. Teachers obtained an average of 63 in the current study which points to a high level need for in-service training activities.

Table 6 demonstrates results of number (n) and percentage (%) calculations undertaken to determine the need for each topic included in ITTIST. Investigation of Table 4 shows that teachers need general knowledge about students with SEN, the most (M=1.79) among the topics included in ITTIST. The first five topics in which teachers expressed their need to learn about special education were found to be “knowledge about learning difficulties” (Item2) (85.6%), “knowledge about intellectual disabilities” (Item1) (84.7%), “knowledge about emotional and behavioral problems” (Item3) (83.3%), “knowledge about gifted students” (Item4) (83.3%), and “teaching social skills” (Item20) (82.0%) respectively.

Findings also pointed to the topics teachers needed the least. Five of these topics were found to be “opinions of punishment methods” (Item2) (34.2%), “forming annual goals for academic skills” (Item14) (34.7%), “grading and graduation” (Item32) (45.0%), “making broad and general assessment before teaching” (Item29) (46.8%), and “providing detailed assessment before teaching” (Item30) (52.7%).

Topics found important by teachers in the education of students with SEN

In order to identify the topics that teachers found important for students with SEN, percentages of teachers who assigned 0, 1, and 2 points to each item in ITTIST were calculated as in Gresham and Elliott’s (1990) study so the topics found to be very important, important or unimportant by the majority of teachers were determined. The topics assigned 2 points by more than 50% of the teachers were considered to be important or critical topics. Table 6 displays the number (n) and percentage (%) distributions of teachers who assigned scores for “unimportant, important or very important” to identify each item in ITTIST for the question “how important is this item for education?”

According to Table 6, all the rest of the 40 items in ITTIST were found to be “very important/critical” in the education of students with SEN by more than 50% of the teachers. Topics regarded to be very important in the education of students with SEN by teachers generally were under the dimension of “general knowledge about students with SEN”. Topics considered as important by three fourths of teachers (range: 75.7 - 76.1%) were “knowledge about emotional and behavioral problems” (Item3), knowledge about gifted students” (Item4), “knowledge about learning difficulties” (Item2), and “teaching self-care and daily living skills” (Item 21) in that order.

Topics considered as not very important by teachers in the education of students with SEN were under the following dimensions: teaching, assessment and behavior control (3 items), preparing IEP and teaching academic skills (2 items), and teaching non-academic skills (1 item). Topics regarded as not very important by the majority of teachers were “forming annual goals for academic skills” (Item14) (32.4%), “opinions of punishment methods” (Item38) (35.1%), “grading and graduation” (Item32) (45.5%), “making broad and general assessment before teaching” (Item29) (48.6%), “using direct teaching method” (Item23) (49.5%), and “ensuring the use of academic skills at different times and environments” (Item19) (49.5%).

Effect of teacher characteristics on teachers’ in-service training needs

One way variance analysis (ANOVA) was implemented to determine whether ITTIST scores changed according to teachers’ grade levels, program of graduation, and seniority. Table 7 presents ANOVA results.

Results display that teachers’ program of graduation, seniority or grade levels they serve have no effect on their special education related in-service needs (p>.05).
Table 6. The numbers (n) and percentage (%) distributions of teachers who allocated 2 points (very essential / very important) for all items in "How much training/information do you need? and "How important do you find the training/information?" subscales in ITTIST.

<table>
<thead>
<tr>
<th>Items</th>
<th>How much training/information do you need?</th>
<th>How important do you find the training/information?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Knowledge about intellectual disabilities</td>
<td>188 84.7</td>
<td>162 73</td>
</tr>
<tr>
<td>2. Knowledge about learning difficulties</td>
<td>190 85.6</td>
<td>168 75.7</td>
</tr>
<tr>
<td>3. Knowledge about emotional and behavioral problems</td>
<td>185 83.3</td>
<td>169 76.1</td>
</tr>
<tr>
<td>4. Knowledge about gifted students</td>
<td>185 83.3</td>
<td>169 76.1</td>
</tr>
<tr>
<td>5. Knowledge about students with autism</td>
<td>168 75.7</td>
<td>155 69.8</td>
</tr>
<tr>
<td>6. Knowledge about other disabilities (vision, hearing, physical etc.)</td>
<td>171 77.0</td>
<td>165 74.3</td>
</tr>
<tr>
<td>7. Knowledge about special education acts</td>
<td>119 53.6</td>
<td>118 53.2</td>
</tr>
<tr>
<td>8. Needs of families of students with special needs</td>
<td>127 57.2</td>
<td>136 61.3</td>
</tr>
<tr>
<td>9. Legal rights of families of students with special needs</td>
<td>119 53.6</td>
<td>136 61.3</td>
</tr>
<tr>
<td>10. Existing support systems for families of students with special needs</td>
<td>139 62.6</td>
<td>142 64.0</td>
</tr>
<tr>
<td>11. Social Institutions and services for families of students with special needs</td>
<td>148 66.7</td>
<td>154 69.4</td>
</tr>
<tr>
<td>12. Preparing individualized education program</td>
<td>142 64.0</td>
<td>137 61.7</td>
</tr>
<tr>
<td>13. Adopting teaching for students with special needs</td>
<td>150 67.6</td>
<td>143 64.4</td>
</tr>
<tr>
<td>14. Forming annual goals for academic skills</td>
<td>77 34.7</td>
<td>72 32.4</td>
</tr>
<tr>
<td>15. Forming short-term goals for academic skills</td>
<td>130 58.6</td>
<td>120 54.1</td>
</tr>
<tr>
<td>16. Preparing teaching materials</td>
<td>150 67.6</td>
<td>136 61.3</td>
</tr>
<tr>
<td>17. Teaching academic skills</td>
<td>159 71.6</td>
<td>140 63.1</td>
</tr>
<tr>
<td>18. Preparing different teaching activities</td>
<td>157 70.7</td>
<td>139 62.6</td>
</tr>
<tr>
<td>19. Ensuring the use of academic skills at different times and in different environments</td>
<td>123 55.4</td>
<td>110 49.5</td>
</tr>
<tr>
<td>20. Teaching social skills</td>
<td>182 82.0</td>
<td>164 73.9</td>
</tr>
<tr>
<td>21. Teaching self –care and daily living skills</td>
<td>176 79.3</td>
<td>168 75.7</td>
</tr>
<tr>
<td>22. Ensuring the use of non-academic skills at different times and in different environments</td>
<td>156 70.3</td>
<td>155 69.8</td>
</tr>
<tr>
<td>23. Using direct teaching method</td>
<td>119 53.6</td>
<td>110 49.5</td>
</tr>
<tr>
<td>24. Using cooperative teaching method</td>
<td>143 64.4</td>
<td>126 56.8</td>
</tr>
<tr>
<td>25. Using induction method</td>
<td>120 54.1</td>
<td>112 50.5</td>
</tr>
<tr>
<td>26. Using brain storming method</td>
<td>127 57.2</td>
<td>115 51.8</td>
</tr>
<tr>
<td>27. Using discovery learning method</td>
<td>144 64.9</td>
<td>127 57.2</td>
</tr>
<tr>
<td>28. Using inquiry learning method</td>
<td>135 60.8</td>
<td>122 55.0</td>
</tr>
<tr>
<td>29. Making broad and general assessment before teaching</td>
<td>109 46.8</td>
<td>108 48.6</td>
</tr>
<tr>
<td>30. Providing detailed assessment before teaching</td>
<td>117 52.7</td>
<td>112 50.5</td>
</tr>
<tr>
<td>31. Monitoring and recording development of skills following teaching</td>
<td>140 63.1</td>
<td>131 59.0</td>
</tr>
<tr>
<td>32. Grading and graduation</td>
<td>100 45.0</td>
<td>101 45.5</td>
</tr>
<tr>
<td>33. Identification of problem behaviors</td>
<td>170 76.6</td>
<td>151 68.0</td>
</tr>
<tr>
<td>34. Assessment of problem behaviors</td>
<td>169 76.1</td>
<td>144 64.9</td>
</tr>
<tr>
<td>35. Using preventive strategies for problem behaviors</td>
<td>164 73.9</td>
<td>144 64.9</td>
</tr>
<tr>
<td>36. Identification and implementation of appropriate methods to increase positive behaviors</td>
<td>175 78.8</td>
<td>156 70.3</td>
</tr>
<tr>
<td>37. Identification and implementation of effective rewards to increase appropriate behaviors</td>
<td>159 71.6</td>
<td>147 66.2</td>
</tr>
<tr>
<td>38. Opinions of punishment methods</td>
<td>76 34.2</td>
<td>78 35.1</td>
</tr>
<tr>
<td>39. Forming, teaching and monitoring classroom rules</td>
<td>164 73.9</td>
<td>143 64.4</td>
</tr>
<tr>
<td>40. Using effective classroom management strategies</td>
<td>168 75.7</td>
<td>147 66.2</td>
</tr>
</tbody>
</table>
Table 7. Teacher in-service training needs in relation to class level taught, graduated program, and teaching experience.

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>143.59</td>
<td>3</td>
<td>47.87</td>
<td>.229</td>
<td>.876</td>
</tr>
<tr>
<td>Within Groups</td>
<td>45592.86</td>
<td>218</td>
<td>209.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45736.46</td>
<td>221</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduated Program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>671.35</td>
<td>5</td>
<td>134.27</td>
<td>.644</td>
<td>.667</td>
</tr>
<tr>
<td>Within Groups</td>
<td>45065.10</td>
<td>216</td>
<td>208.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45736.46</td>
<td>221</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>285.64</td>
<td>3</td>
<td>95.21</td>
<td>.457</td>
<td>.713</td>
</tr>
<tr>
<td>Within Groups</td>
<td>45450.81</td>
<td>218</td>
<td>208.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45736.46</td>
<td>221</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DISCUSSION

Current study aims to identify special education related in-service needs of inclusive classroom teachers. Identification Tool for Teachers’ In-Service Training Needs (ITTIST) developed for this purpose was used in the research to investigate teachers’ views on in-service training, their in-service training needs, topics they regarded as important in the education of students with SEN and the effects of teacher characteristics on their in-service training needs. Following section discusses the research findings in line with literature.

First important finding of the research is number of teachers who are attending in-service training in Bolu. Approximately half of the participating teachers stated that they attended in-service training courses organized by MoNE. According to 2012-2013 Education and Training Statistics of Turkey, 261,497 teachers are employed in primary schools. There is no record of statistics for in-service training organized for primary school teachers by MoNE for the same year. Approximately 530 primary school teachers are employed in Bolu Province where the study was conducted, and the number of classroom and subject matter teachers attending the annual local in-service training activities organized by Bolu MoNE is about 130. In other words, only one fourth of the teachers in the province are attending in-service training activities and the number is believed to be rather low. Half of the teachers in the current study expressed that they found the in-service trainings partly useful. All these findings point to the fact that satisfactory in-service training is not provided to teachers in Turkey and teachers attending these activities benefit from these activities partly. These findings are supported by similar findings obtained in Turkey (Ergin et al., 2012; MoNE, 2008).

Second important finding of the current study is related to the level of inclusive classroom teachers’ needs for special education related in-service training. Teachers in the study obtained an average score of 63 from ITTIST in which the highest score is 80. This finding suggests that teachers have a high level need for special education related in-service training. This finding is parallel to findings from other studies in the literature (Ergin et al., 2012; Gültekin et al., 2010; MoNE, 2008). For instance, a comprehensive study undertaken by MoNE (2008) shows that approximately half of teachers needs training on special education topics. On the other hand, in-service training activities organized or will be organized by MoNE in the last five years (2009-2014) for classroom teachers in general education (MoNE, 2014b) do not include trainings for inclusive practices for classroom teachers or trainings on special education during 2009-2012, while there is merely one training activity organized in 2013 and one to be organized for 2014. This situation makes one think that there is little emphasis on inclusive practices in in-service training activities organized by MoNE. More studies should be conducted in this field and the results should be forwarded to MoNE to suggest increasing the in-service training activities in the field.

Another important finding obtained in the study is the fact that inclusive classroom teachers need information regarding SEN students and teaching social skills the most in special education and need the least knowledge about opinions of punishment methods, forming annual goals for academic skills, grading and graduation, making broad and general assessment before teaching, and providing detailed assessment before teaching.

While these findings obtained from the current study are parallel to study results in Turkey (Ergin et al., 2012; Gültekin et al., 2010; MoNE, 2008), they are not consistent with findings in the literature. In their study,
Buell et al. (1999) reported that teachers needed knowledge the most on preparing IEP, adapting materials and curriculum, providing individual support, and writing behavioral goals. The reason that teachers needed knowledge about students with SEN the most; in other words they need to learn general knowledge about special need students. This may be related to the fact that they have limited knowledge about inclusive education and special education. Studies which examined teachers’ views on inclusive education (Babaoğlan and Yiğmaz, 2010; Nişamoğlu, 2006) emphasized the fact that teachers do not receive any training on inclusive education and they feel incompetent in inclusive practices. Similarly, literature also states that teachers are not sufficiently trained pre-service regarding inclusive education and students with SEN (Evans et al., 1996; King-Sears, 1995; Pugach and Seidl, 1995; Sindelar, 1995). Based on all these findings, it is suggested to include basic knowledge that teachers need in in-service training activities that will be organized.

Current study showed that teachers do not feel the same amount of need to learn about using punishment methods as they need to learn other topics. It is pleasing that a high number of teachers did not need to learn about these methods but one third of the participant teachers were still found to highly need to learn this topic while two third of them partially needed it. However, it is known that punishment is less effective and lasting than reinforcement in changing student behavior and while it may seem to solve the problem for the moment, the behavior may resurface again easily. Therefore, teachers are suggested not to use punishment (Eripek, 1988). Topics of grading and graduation-on assessments are included among the topics needed the least by the teachers however these are highly important topics in the education of students with SEN. Especially, assessment is highly necessary and crucial to provide quality special education services and develop IEPs (Gürsel and Vuran, 2010).

Topics needed to be learned the least are also the topics considered to be less important in the education of special need students. The most important and highly needed topics for teachers are related to student characteristics and the topics regarded the least important are related to assessment, adopting education, and teaching methods. These findings can be explained by teacher expectations regarding students with SEN. Teachers have lower expectations for students with SEN compared to peers with normal developmental patterns (Author, 2011). These low expectations affect their behavior standards. For instance, in a classical study Brophy and Good (1970) identified and distinguished teacher behaviors towards students for whom teachers had high and low expectations (Cited in Rubie-Davies, 2010). Researchers demonstrated that teachers displayed high level of behavioral standards to students for whom they had high expectations and often rewarded these students as their expectations were met. On the other hand, they displayed low level of behavioral standards to students for whom they had low expectations and they rewarded these students less often even when these students behave more positively compared to students for whom higher expectations were cultivated. The findings of the current study which pointed to the fact that teachers felt less need to learn about the education of students with SEN and methods to deal with their behaviors may be explained the results obtained by Brophy et al. (Brophy, 1983; Brophy and Good, 1970 Cited in Rubie-Davies, 2010).

The last finding of the study points to the need for investigating teachers’ expectations based on their program of graduation. In-service special education training needs of teachers in the current study did not differ according to their program of graduation or their students’ grade levels. There are no studies in Turkey that investigated the in-service training needs of teachers based on teacher characteristics; however, studies conducted on classroom teacher candidates (İzci, 2005; Orel et al., 2004) showed that teachers were not equipped with knowledge and skills regarding inclusion and special education and they needed to be trained in these areas. This lack of knowledge basically results from the fact that the undergraduate curriculum does not include necessary information on special education (Author, 2013). Literature review points to lack of sufficient training on special education for teachers before they start teaching (Nguyet and Ha, 2010). Therefore, it is suggested to teach similar topics to all inclusive classroom teachers who will participate in in-service training activities regardless of their program of graduation or the levels of students they teach.

Current study is one of the rare studies on inclusive classroom teachers’ need for special education related in-service training and it is believed that findings of the current study will contribute to both to literature and to practices in a few areas. The first area of contribution is the identified level of teacher needs. Approximately three fourth of teachers stated that they needed special education related in-service training. Therefore, it is suggested that all in-service training course that will be organized should include the topics that are needed.

The second important contribution of the current study is the identification of topics found the least important by teachers for students’ with SEN. Teachers should be informed of the importance of these topics, especially the importance of teaching and behavior strategies for students with SEN in-service training courses and should be provided with knowledge about these topics.

Current study has an important limitation since the data obtained for the study are limited to voluntary teachers.
employed in the province of Bolu. Therefore, replications of the study or undertaking similar studies are necessary to generalize the findings.

Conflict of Interests

The author has not declared any conflict of interests.

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