EXAMINING THE METHODS AND STRATEGIES WHICH CLASSROOM TEACHERS USE IN THE EDUCATION OF GIFTED STUDENTS

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Abstract: Teachers are the leading people who are the most responsible for students' education. The method and strategies that the teacher chooses influence the student's academic, cognitive and affective development directly. In each class, there are students whose cognitive qualities are different from each other. Gifted students differentiate from their peers in relation to their learning speed and perception capacity in terms of their potential when compared with their peers. The teacher plays a critical role in the development of inborn competent of these students having such qualities. The aim of this study is to examine the methods and strategies which classroom teachers know and use in the education of gifted students.

The research population is composed of classroom teachers working in formal educational institutions within the borders of Tekirdağ city. Taken into consideration attainability, 177 teachers from 72 schools out of the research population were included in the study with the method of random sampling. In the research, interpretive sequential design was used as a model. The study was implemented in two phases. In the first phase, data were collected from teachers participating in the research on the methods they know and use in educating gifted students through a form made up by the researchers. In the second phase, interviews were implemented with 17 of the willing teachers participating in the first phase of the study in order to determine the method/ strategies they use in educating gifted students and the problems they encounter while using the method/strategies. As a device of data collection, semi-structured interview forms developed by the researchers were used.

As a result of the research, it was discovered that the strategy which is the most known and used is "resorting to the supplementary reading sources". The problems they encounter while using the method/ strategies they know are crowded classes, too much workload, economical limitations in attaining materials and equipment, lack of knowledge and insufficiency of in-service education.

Keywords: Gifted student, classroom teacher, method, strategy, teacher education

INTRODUCTION

Gifted students differentiate from their peers cognitively in terms of their perceptional speed, learning depth and their interests. These students need comprehensive educational opportunities and services which cannot be supplied with normal programmes (Renzulli & Reis, 1985; Csikszentmihalyi & Robinson, 1986). General educational classes consisting of students at the level of mixed ability are relatively lower than gifted students' levels.

The teacher is a teaching leader who knows the individual differences of students in his class and establishes teaching experiences which are suitable for this. When considered that each student has different interests, abilities and skills, educational programmes need to be organized in such a way that they can meet the student's needs (Levent, 2011).

According to Bloom taxonomy, while a student with average intelligence needs activities related to the application level that can be said to be high level and upper gains (analysis, evaluation, creation) less, the gifted student is more prepared to acquire gains including advanced thinking processes (Gross, 2004). Therefore, they need education focusing on developing problem solving skills as well as creative and critical thinking skills.

When considered in the context of the education of gifted students, what is expected basically from teachers is that they should know teaching strategies that can be implemented to students whose cognitive capacities are higher than their peers (Karnes, Stephens & Whorton, 2000; Rogers, 2007; Sak, 2010) and that they should have the ability to develop the advanced thinking skills of these students (Rogers, 1989; Karnes, Stephens & Whorton, 2000; Rogers, 2007).

The researchers who are accepted as the authority in the area of the education of gifted students argue that teachers should know the characteristics of gifted students very well in order to meet the educational needs of these students and that they should have enough knowledge in the subject of differentiation of curriculum (Pigge & Marso, 1987; Cross & Dobbs, 1987; Feldhusen & Huffman, 1988; Hanninen, 1988; Lyon, Vaassen & Toomey, 1989; Parke, 1989; Hansen & Feldhusen, 1990; Cramer, 1991; Feldhusen, 1991; Copenhaver & McIntyre, 1992; Feldhusen,

1997; Davalos & Griffin, 1999; Gallagher, 2000; Toll, 2000). On the other hand, the researches covering classroom teachers (Gökdere & Ayvacı, 2004; İnan, Bayındır & Demir, 2009; Şahin, 2013), teachers from different branches (Robinson, 1985; Johnson, Vickers & Price, 1995; Gökdere, Küçük & Çepni, 2003; Gökdere, 2004; Gökdere & Çepni, 2005; Kontaş, 2009; Hemphill, 2009; Kıldan, 2011; Dyrda, 2012) and the candidates of preschool ushers teachers (Şahin, 2012) indicate that teachers' knowledge regarding gifted students is not enough. The main strategies used in the education of gifted individuals can be called acceleration, enrichment and grouping. With enrichment strategy, it is aimed to develop creative thinking, problem solving, critical thinking and scientific thinking skills. In the content, there are subjects where these processes are developed, projects, performance homework and activities. The projects of independent studies and researches, visiting cultural and scientific areas or vocational institutions, inviting speakers, weekend programs, learning centres made up in the classes or school's source room, activities implemented within the scope of counselling, summer programs or camps can be given as the examples of enrichment in content (Ataman, 2004; Davaslıgil, 2004).

Acceleration is a strategy based on enabling a student to participate in the program based on his proficiency instead of calendar age. There are different types of implementations such as acceleration, taking lectures from the university, being enrolled in school early, international bachelor program, enrolling in two different programs simultaneously, curriculum compacting and taking lessons from the upper classes (Sak, 2010).

Grouping is to give education by bringing together students whose skills, interests and learning styles are similar. In relation to teaching aims, different grouping types can be constructed. These can be counted as: special school, school within school, fully special class, part-time special class, XYZ classifying, mixed ability class, regrouping based on the lesson, accelerated class, similar skill groups in the class, mixed skill groups in the class and multi-levelled groups in the class (Benbow, 1998).

The aim of this research is to investigate method/ strategies which classroom teachers working in general elementary schools know and use and the problems they encounter with while using these. Within the framework of this aim, the following questions are tried to be answered:

1. What method/ strategies do classroom teachers know and use in the education of gifted individuals?
2. What kind of problems do they encounter with while using method/ strategies they know and use in the education of gifted individuals?

METHOD

Research method

In this research, interpretive sequential design which is one of the mixed designs was used in order to determine the method/strategies which teacher know and use in the education of gifted students in their classes and the problems which teachers encounter with while using these methods/strategies. The reason for choosing this design is that qualitative data was consulted in order to explain quantitative data obtained initially (Cressweel, 2003).

Working group

Two different sampling methods were used in order to maintain the study in two phases and implement both qualitative and quantitative data devices together. In the first phase of the research, simple random sampling method was preferred. While the working group was made up, it was considered that teachers actually work in Tekirdağ city in Turkey, that they work at a formal elementary school, and that at least a gifted student was identified in their class. In this context, 121 schools provincial-wide in Tekirdağ were visited, and teacher having these criteria were determined. Through this way, data were collected from 177 teachers in 42 different schools.

In the second phase of the research in which qualitative data were collected, the working group which was interviewed according to the purposeful sampling method was decided on. According to this sampling method, the individuals carrying the criteria determined earlier were selected as the sampling (LeCompte, Preissle & Tesch, 1993). Thus, it was aimed to study in depth the cases which were thought to have rich information. The research was implemented between October 2012 and January 2013.

In the first phase of the study, the gender, age, graduation grade, vocational seniority of the teacher who the data collected from, whether or not they took education concerning this subject and the class size were determined. 85 of the participants (48%) were female while 92 (52,00%) were male. 10 of the teachers (5,60%) were between 20-25 age group, 18 (10,20%) between 26-30, 22 (12,40%) between 31-35, 23 (13,00%) between 36-40, 47 (26,60%) between 41-45, and 57 (32,20%) were 46 and over. All the teachers (100%) were bachelors. Moreover, 28 of them (15,80%) have worked for 5 and less, 23 (13%) between 6-10 years, 28 (15,80%) between 11-15 years, 27 (15,30%) between 16-20 years, and 71 (40,10%) 21 years and over in their teaching job. Four of the teachers (2,26%) stated that they took education concerning the subject while 173 (97,74%) said that they did not take any education for this subject. The distribution of the teachers' class sizes change between 17 and 37.

The qualities of 17 teachers included in the second phase of the study are given below: 8 of the teachers (47,06%) who were interviewed were female while 9 (52,94%) were male. 5 of these teachers (29,41%) were between 26-30 age groups, 6 (35,29%) were between 31-35 years old, 5 (29,41%) between 36-40, and 1 (5,88%) was between

41-45 years old. All the teachers (100%) were bachelors. 3 of the teachers participating in the study have worked for 5 years or less, 5 (29,41%) between 6-10 years, 6 (35,29%) between 11-15, and 3 (17,65%) between 16-20 years in their teaching job. 2 of the teachers (11,75%) expressed that they took education regarding the subject while 15 of them (88,25%) expressed that they did not take this kind of education. The distribution of the teachers' class sizes change between 20 and 34.

Data collection devices

Data were collected in order to find out the methods which the teachers know and use in the first phase and to find out the problems which they encountered with while using these method/strategies. Quantitative data collection device was used in the first phase while qualitative data collection device was used in the second phase.

In the first phase, a data collection form developed by the researchers was used. The data collection form was composed of six questions for finding out the participants' vocational and personal qualities and two open ended questions for determining the methods/strategies which they knew in the education of gifted students and which of these methods/strategies they use. The answers given to the open ended questions were written in the data form by the ones conducting surveys. Then, the accuracy of the written things was affirmed by being read to the teachers. The research data were collected with the help of 30 university students, eager for the study, who took the lecture "Research Method and Techniques". While the data were collected, the face-to-face interview technique was used. The interview technique out of qualitative evaluation devices was used in order to determine what kind of problems the teachers encounter with while using the method/ strategies they prefer in the education of gifted students. The interview data were collected by means of a form prepared according to the semi-structured interview technique. This technique was preferred since it is a very effective method to collect data concerning individuals' experiences, opinions, complaint, feelings and beliefs (Yıldırım & Şimşek, 2011). The interview from consisted of a single question. In the face-to-face interviews with the participants, a sound recording apparatus was used in order to prevent the data loss. Then, the sound recordings were transcribed and made ready for the analysis. In the next stage, the transcription of the interview data was made to be confirmed by the teachers. The interviews were carried out by 17 of the eager teachers who participated in the first phase of the study.

Data analysis

In the analysis of the quantitative data in the research, the frequencies and percentage of the answers the participants gave were calculated. The analysis of the quantitative data was performed by means of the inductive analysis out of the content analysis types (Miles & Huberman, 1994; Yıldırım & Şimşek, 2011). In the content analysis, firstly the answers which the participants gave to the questions in the interviews were transcribed. NVIVO 10 content analysis program was in the analysis of the research data. In the first stage of the data analysis, the answers given to the question were analysed by the researchers, and themes, sub-themes, codes and frequencies emerging as a result of these analyses were made up of. Also, codes in the form of S1were given to each participant in order to hide their identities, and the names of the schools where they work were kept secret.

FINDINGS

The Methods/ Strategies which the teachers know and prefer to use

In the research, it was firstly tried to determine the methods/ strategies which the teachers know in the education of gifted students in their classes. The percentage and frequencies of the methods/ strategies which the teachers know are given in Table 1.

Table 1. The methods/ strategies which the teachers know

The known methods/strategies	n	%
Using to supplementary reading sources	100	56,50
Using the grouping strategy	45	25,40
Individualizing education	29	16,38
Consulting to in-class creative techniques (brainstorming, six thinking hats)	21	11,86
Increasing the hardship levels of activties	16	9,04
Giving additional responsibility in the class (assistant teacher)	8	4,52
Using to the technique of enrollment upper class	6	3,40
Taking credits from the upper classes	2	1,10

When the methods/ strategies which the teachers know were examined, it was discovered that the most well-known method/ strategy is "Using to supplementary reading sources" (56,50%). It was respectively followed by "Using the grouping strategy" (25,40%), "Individualizing education" (16,38%), "Using to in-class creative techniques (brainstorming, six thinking hats)" (11,86%), "Increasing the hardship levels of activties" (9,04%), "Giving additional responsibility in the class (assistant teacher)" (4,52%), "Using to the technique of enrollment upper

class" (3,40%) and "Taking credits from the upper classes" (1,10%). The percentage and frequences of the methods/strategies which they use in the education of gifted students are given in Table 2.

Table 2. The methods/ strategies which the teachers use

The implemented methods/strategies	n	%
Using to supplementary reading sources	76	42,90
Individualizing education	22	12,43
Giving additional responsibility in the class (assistant teacher)	21	11,90
Using the grouping strategy	10	5,60
Increasing the hardship level of activities	9	5,10
Using to in-class creative techniques	8	4,50
Using to the technique of enrollment upper class	1	0,60
Taking credits from the upper classes	-	-

When the methods/strategies which the teachers use were examined, it was determined that the mostly implemented method/ strategy was "Using to supplementary reading sources" (42,90%). It was respectively followed by "Individualizing education" (12,43%), "Giving additional responsibility in the class (assistant teacher)" (11,90%), "Using the grouping strategy" (5,60%), "Increasing the hardship level of activities" (5,10%), "Using to in-class creative techniques (brainstorming, six thinking hats)" (4,50%), and "Using to the technique of enrollment upper class" (0,60%). Also, although "Taking credits from the upper classes" took part in the well-known strategies, it was discovered that it was not consulted in the implementation.

The problems encountered while the preferred methods/ strategies were used

Another subject examined in the research was what kind of problems the teachers encountered with while they used the methods/ strategies they consulted to in the education of gifted students in their classes. The percentage and frequencies of the data obtained from the inetrviews performed with the classroom teachers are given Table 3.

Table 3. The problems which the teachers encountered with while implementing the methods/strategies

The problems encountered	n	%
Insufficient knowledge and inadequacy of in-service education	10	58,82
Crowded classes	9	52,94
Excessive workload	7	41,18
Economical limitations in reaching educational materials and equipment	5	29,41

A large number of teachers who were interviewed stated that the primary one of the problems which they encountered while implementing the methods/strategies they know in the education of gifted students was insufficient knowledge and inadequacy of in-service education (9/17).

> *"... I was asking more difficult questions than those I was asking to the others. I discovered that he began not to do his homework, and I began to give him homework which I gave to the others... I was performing group studies, the other children made him all of their homework and studies, and I cancelled the group studies as I could not stand..."* (S12)
>
> *"... I was consulting to such methods as brainstorming and creative activities in the class. But brilliant ideas did not come from the other students, all the brilliant ideas came from my gifted student. Despite all, education cannot be maintained through only one student, and I abandoned these methods since the others found them difficult..."* (S16)
>
> *"After I began to work as a teacher at school, there was a gifted student in my class. I was surprised and did not know what to do as I was always accustomed to giving education to normal students. I wish National Education Directorate sometimes had given education in this subject and I would have remembered my previous knowledge..."* (S8)
>
> *"You do not always encounter with a gifted student, every three or five years... I had a gifted students in the thirteenth year of my job. I teached the lessons so routinely that I often had to exert myself in order to show enough interest for this child by exceeding the borders... By the way I began to assign him difficult tasks, I realized that he began to be at odds with his friends, and I gave up, behaving him as I did others..."* (S11)

As can be understood from the teachers' expressions above, it can be said that teachers have insufficient knowledge in the education of gifted students and need in-service education. This case was stated openly in the opinions of S8 and S11 concerning insufficient knowledge and the need for in-service education. It can be seen that S12 and

S16 had the low awareness of the implementation of the methods/strategies although they had some knowledge regarding the education of gifted students.

A number of the teachers (9/7) stated that crowded classes obstruct the education of gifted students. In addition to making it difficult for the teacher to interest students personally in a course hour, crowded classes also cause the lessons to be studied in accordance with the majority of students in the class. Despite this, the teacher can provide teaching support for gifted students needing special education even in crowded classes by using various methods/strategies. The striking ones out of the teachers' opinions concerning the subject are given below:

> *"My most important problem is that my class is crowded... The child is identified as gifted and continues my class. I do not give education to the gifted student on my own. What will be to my other students? I must also teach them some things. When you explain the subject to the general group, then the gifted student gets bored... I must prepare some extra studies for this student, but I do not have enough time"* (S3)
>
> *"... I have been assigned as an assistant teacher for the gifted student. Thus, the other students are jealous of him, either they beat him before I realize it or they do not permit him to join in their plays. When I do not give him tasks, he gets at odds with me..."* (S10)

When the opinions of the participants codified as S3 were examined, it was seen that they complained of the crowded classes and the fact that the teachers cannot spare enough time for the gifted student in such a surrounding. The opinions of S10 were similar to those of S3.

Some teachers (7/17) expressed that excessive loadwork prevents the education of gifted students. Too much workload, working for a long time, exhausting work cause the teachers to feel that they have too much workload. This case leads the teachers to make no effort for gifted students who need special education. This case can be seen clearly in the opinions of the participants below.

> *"... I cannot spare time for both suplementary homework and creative activities... There are other things in the class, too. I have many students. I cannot handle all since I have too much workload."* (S10)
>
> *"As classroom teachers, we have to do so much unnecessary work on a day that there is not any time to do our basic work..."* (S14)

It is seen in the opinions of the participants codified as S10 that although they know such techniques as giving creative activities and supplementary studies to gifted students, they cannot implement them because of complaining of them.

Some teachers interviewed (5/7) stated that inadequacy of materials and sources poses an important problem in the education of gifted students. The teachers' expressions supporting this idea are given below.

> *"The gifted students in my class comes to school with difficulty. On some days, he cannot find any money for his lunch. I wanted this student to buy a book for the acitivity ouside the school I planned. He accepted, but he could not buy the book. I bought it. My salary is scarcely sufficient for me. At least, I wish soem could provide support for stationary equipment and materials."* (S7)
>
> *"... In order to provide a gifted student with additional education, we need a lot of materials and equipment. We do not have any support for these to be supplied..."* (S15)

The fact that the teachers expressed that they cannot take any support from any centre or institution support for the supply of sources regarding the education of gifted students proves that there is inadequacy of sources and materials in this area. This case shows that the education of gifted students can be maintained with the materials and equipment that teachers can supply.

DISCUSSION

In this study, the methods/ strategies which teachers know mostly and use in the education of gifted individuals and the problems they encounter while implementing these methods/ strategies.

When they were asked about the methods/ strategies they know, they gave ten different answers. The mostly well-known and used strategy was expressed as "Using to supplementary reading sources". The least well-known and used strategy was expressed as "Taking credits from the upper classes". According to Özcanar and Bildiren (2012), using to supplementary reading sources which were stated as the most well-known startegy is among the lowest support studies which can be consulted in the education of gifted students. The fact that taking credits from the upper classes is the least well-known strategy can be said to stem from the fact that it is not possible legally to be implemented due to the Turkish national educational system.

The teachers within the scope of the research expressed that the problem which they encounter with mostly while implementing the methods/ strategies which they know is crowded classes and excessive workload. The working group teachers work in the public sector. In the public sector, the workload of classroom teachers' lessons is about 6 hours on average. In a week, work shift is carried out during five days. They can spare their time other than this for personal development or the studies connected with their job. Their colleagues working in the private sector attend six hours of lessons as well as two hours for the other studies about students. On Saturdays, they attend four hours for etud on average. That is, while a teacher in a public sector works around 30 hours a week, his colleague

in a private sector works around 44 hours a week. According to two different studies of Şahin (2012) and Şahin (2013), it was determined that teachers working in the private sector regard 45 hours of work and over totally in a week as the excess of workload while teachers working in the public sector regard 30 hours of work and more totally in a week as the excess of workload. Therefore, the fact that the teachers whose opinions were consulted in this study work in the public sector is effective on their perception that their workload is excessive.

The class size of the teachers whose opinions were consulted changes between 20 and 34 students. It is difficult to give a precise number concerning how many students an ideal class should be made up of. The more a class size increases, the less the time which a student spends with his teacher personally becomes. On the other hand, a lot of methods and strategies under the grouping the strategy in crowded classes can be mentioned. In the crowded classes consisting of students at the level of mixed skills, lots of methods and strategies such as teaching contacts, independent project studies (Tomlison, 1999), grouping in-class similar or different skills (Benbow, 1998). Other than this, lots of methods/ strategies can be mentioned. For instance, Smith (1998) mentions 172 different strategies which can be used in order to develop creative thinking (Sak & Oz, 2010). But the teachers whose opinions were consulted mentioned a limited number of strategies/ methods. This finding implicitly signifies insufficient knowledge and the need for in-service education. The fact that insufficient knowledge and the need for in-service education are among the problems which teachers encounter with while implementing the methods/ strategies they know emerges as another problematic area. The data obtained from the interviews confirm the descriptive data in relation to the methods/ strategies they know and use.

The basic factor in the working group teachers' insufficient knowledge and the need for in-service education can be said to be the fact that there is not any compulsory course concerning gifted students and these individuals' education in classroom teachers' university education. Teachers who did not have enough education concerning gifted students are incompetent in meeting the educational needs of these students (Hanninen, 1988; Archambault *et all.,* 1993; Dobyns & Salvin, 1993; Hansen & Feldhusen, 1994; Feldhusen, 1997; Westberg, Archambault, Westberg & Daoust, 2003) and generally do not have enough knowledge regarding how they should treat gifted students (Winebrenner, 2000; Dyrda, 2012;).

Some experts argue that teachers should be given education in the pre-service education in order to meet the educational needs of gifted students (Sisk, 1987; Feldhusen & Huffman, 1988; Greenlaw & McIntosh, 1988; Rogers, 1989; Shore, 1991; Copenhaver & McIntyre, 1992; Dettmer, 1993; Tomlinson *et all*., 1997). According to these experts, carrying out teaching implementations which can meet the educational needs of gifted students can be made possible by means of teachers' having teaching knowledge in this area (Hall, 1983; Mertens, 1983; Parker & Karnes, 1987; Cross & Dobbs, 1987; Rogers, 1989; Ginocchio, 1990; Meade, 1991; Lieberman, 1995; Taplin, 1996; Davison, 1996; Sullenger, Cashion & Ball, 1997; Gallagher, 2000; Toll, 2000; Clinkenbeard & Kolloff, 2001; Darling-Hammond, Chung & Frelow, 2002). Through holding in-service educational programs, the opportunities of professional development for the education of gifted students can be offered to teachers (Ball & Cohen, 1999; Reis & Westberg, 1994). Thus, it can be enabled for them to both develop positive attitudes to students and increase their knowledge level concerning differentiated programs (McLeod & Cropley, 1989).

In a study, Hanninen (1998) discovered that teachers taking in-service education related with the education of gifted students implement different teaching techniques which aim at satisfying their personal interests in order not to make them bored in the class, even these teachers support them to continue their learning activities outside the school. On the other hand, Westberg and colleagues (1993) expressed that it is not effective and enough to explain teachers in the education given regarding gifted students what they should do, but to indicate them how they should these things. Therefore, teachers should be offered the opportunity to work with gifted students in their education in the pre-service period (Southern& Jones, 1991). In this context, many experts (Feldhusen & Huffman, 1988; Kagan, 1992; Starko & Schack, 1989; Copenhaver & McIntyre, 1992; Dettmer, 1993; Tomlinson *et all.*, 1997) claim that gifted students can be raised by means of the direct interaction of teachers in the education of gifted students. Even Joyce and Showers (1988) stated that teachers can learn effective and complex teaching strategies if they attend well designed in-service education activities.

The economical limitations in reaching the educational materials and equipment are another matter mentioned among the problems which the teachers encountered while using the methods/ strategies. In most of the developed countries such as America, Canada and Austria, there is a large amount of governmental support for the education of gifted students whose economical standards are low. Nonetheless, the governmental for the education of gifted students in Turkey is quite limited. Social and monetary assistance for these individuals is limited with those provided by the local authorities or people (Levent, 2011). But the fact that the teachers have the opinion that "If the educational material is not found, education is interrupted" is challenging. Because students can be made to gain teaching aims through using different materials if a education materiel is not reached or reached in a limited way. Then, the teachers' opinions regarding the lack of educational materials and equipment indicate insufficient knowledge and inadequacy of in-service education.

CONCLUSION AND SUGGESTIONS

In this research, it was aimed to determine the methods/ strategies which classroom teachers know and use and the problems which they encounter with using these methods/ strategies. In the result of the research, it was discovered that teachers have insufficient knowledge for the subject and need in-service education.

There are research findings which show that teachers who do not have sufficient knowledge in the area of the education of gifted students make mistakes in relation to students' academic needs, social and emotional development. In a study performed by Bain and his friends (2007), it was found out that teacher candidates think that acceleration model has a negative influence on gifted students and program for gifted students make up an elite group and that this kind of students can be successful without special service. In another study performed by Bain, Choate and Bliss (2006), it was discovered that teacher candidates think that all gifted students display the same qualities and that these students are in a simultaneous development in different areas instead of a development which is not simultaneous.

In different phases of education, teachers' competence for gifted students and their education can be increased. These phases can be counted as pre-service, before beginning to work after the selection, in-service education and post-graduate education. In many studies conducted, it was discovered that the competence of teachers taking education on gifted students increased within the scope of knowing gifted students (Robinson, 1985; Rohrer, 1994; Johnson, Vickers & Price, 1995; Şahin & Çetinkaya, 2013) and developing teaching strategies in the education of gifted students (Reis & Westberg, 1994; Johnson, Vickers & Price, 1995). Besides, across the world, one of the mostly used methods in educating and raising teachers taking on responsibility in the education of gifted students is that teachers graduating from any teaching program continue to attend an additional certificate program or summers courses (Cramer, 1991; Karnes & Marguart, 1995; Karnes & Whorton, 2000).

In accordance with the results of the research, the following suggestions can be given to the head of school, policy determiners and makers:

- In-service educational programs which can enable teachers to take applied education on gifted students and their education can be held by MEB. In these types of education, especially activities which are predominantly based on implementation can take part in order to develop teachers on the material use and production.
- In universities' education faculties, information on the qualities of gifted students and their education takes part only as a unit in pre-school, elementary and secondary teaching programs. In this context, a lecture in education faculties which can make teacher candidates gain sufficient information grounding and increase their awareness on this area can be offered.
- A guide book on activities and methods/strategies which will be used in the education of gifted students can be prepared for teachers by Ministry of National Education (MEN).
- At the local and national level, a web based platform or network in which teachers can share their experience concerning the education of gifted students can be constructed. Thus, teachers can share implementations they perform with gifted students and methods/strategies they use with their colleagues.
- The materials and sources which teachers need in the education of gifted students should be supplied by the government. The local authorities, voluntary institutions, non-governmental organisations, foundations and associations, professional chambers and chambers of trade, shareholder institutions in all sectors can take on responsibility to meet the source need in this area.
- Stimulating rewards can be given to teachers who perform successful implementations and example projects with gifted students by MEN or the local authorities.
- The studies which can enable cooperation between teachers working at schools and those in Science and Art Centres being active across the country to increase and the collective project spirit to be developed can be performed.
- The tasks and responsibilities of school guidance teachers include giving expert support to teachers on knowing students who need special education and the education of these students. In-service education studies which can increase the sensitivities of guidance teachers working at schools on the subjects of the needs and qualities of gifted students and their education can be given. Therefore, school guidance teachers can guide teachers correctly on the education of gifted students and give them professional support on which methods/ strategies should be used.

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