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## Mentoring in Gifted Student's Education and a Model Suggestion

LUTFU CAKIR and IBRAHIM KOCABAS

### Abstract

The purpose of this study is to examine the mentoring process in the education of gifted students and to develop a model applicable for the Turkish Educational System. The data of the study were collected through a literature review and focus group interviews. The study was conducted on one public and one private education institution for gifted students in Istanbul, Turkey. Purposeful sampling method was used in this study. A total of nine group interviews were carried out on 43 shareholders, the administrators, teachers, parents and student sub-groups, of the institutions in the sample group. The interviews were recorded and the recordings transcribed and analyzed through content analysis. As a result of the study, the establishment of a mentoring model was suggested under the Ministry of National Education, General Directorate of Special Education Guidance and Counseling Services, Department of Special Talents Development and issues such as model development, mentor and service area selection, matching, system operation and feedback were examined in detail.

**Keywords:** gifted students, mentoring, education, mentor, model suggestion.



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## Introduction

It is stated by the Turkish Ministry of National Education (MoNE) that gifted children display a higher level performance in intellect, creativity, art, leadership capacity or special academic fields than their peers (MoNE, Directive for Science and Education Centers, 2007). These students, who have different academic and cognitive skills than their peers, have various special needs which cannot be met by the standard educational system. According to Sak (2014), intellectually gifted students who lack the education appropriate for their individual needs encounter critical problems throughout their schooling. Unexpected low level success, lack of motivation, perfectionism, adaptation problems, dropping out of school and social isolation are among the problems that gifted students encounter (Clark, 2013; Ozbay, 2013).

The special needs of gifted students and problems they encounter compel them to receive special education convenient for their talents and interests. According to the related literature, various models and practices such as enrichment, acceleration, grouping and mentoring are frequently used in the education of gifted students. Although the educational practices for gifted students have a long history in Turkey, when compared with contemporary practices there is a lack of qualitative and quantitative research in this field (Sak, 2011). With regards to formal education practices in Turkey, there are no public education institutions which offer fulltime education for only gifted students. In addition to offering fulltime primary and high school education to gifted students, Science and Arts Centers also provide talent workshops which they can attend in their free time. According to National Education Statistics (MoNE, 2015), the number of Science and Art Centers in Turkey since the end of 2013-2014 academic period is 72 and the number of students receiving part-time education in these institutions is 14, 493. While between 2% and 4% of the students in developed countries are identified as intellectually gifted and receive special education (Smith, 2007); the rate of special education offered in Science and Art Centers in Turkey is 1.6%.

Along with the quantitative deficiencies in gifted students' education, there are serious shortages in fields that constitute the fundamental qualitative dimensions such as education model, content and curriculum. Introducing new models to the Turkish Educational System will offer an alternative for gifted students who get bored at school, require special education programs and have different interests. Thus, although mentoring is a prevalent education model in countries such as America, Germany, and Israel, who attach major importance to gifted students' education, in Turkey it is not applied in the field of special education.

The concept of mentoring can be defined as a master-apprentice relationship. With regards to education, mentoring is defined as the process in which a wise and experienced person trains, guides and counsels a person with less experience. Mentoring is an ancient concept dating back to Ancient Greece. In Homer's masterpiece *Odyssey*, the King of Ithaca, Odysseus, decides to travel the world and entrusts his son, Telemachus, to his devoted friend Mentor. Mentor's duty was to guide Telemachus while his father fought in the Trojan War. Rather than a simple teacher, Mentor was a wise consultant and a special guard who shaped Telemachus' character (Miller, 2005). In our history, there are many mentoring

relationships such as between Socrates and Plato, Aristotle and Alexander the Great, Akshemseddin and Fatih the Conqueror.

According to Akarsu (2001), one of the most effective education methods for gifted students is to resort to an adult master teacher (mentor). Mentoring is a special educational process for training and supporting gifted students (Clasen & Clasen, 2003; Freeman, 2001; Grassinger, Porath, & Ziegler, 2010). Many researchers and educators assert that normal curriculums fail to meet educational needs of gifted children and that curriculums should have multidirectional and creative features (Baykoc-Donmez, 2009). Models which have been implemented in the past and today in the education for the intellectually gifted are given below:

*Acceleration:* Acceleration can be practiced by; starting school at an early age, advancing up a grade, advancing in the courses one succeeds in, completing a normal program in a shorter period, taking courses and attending seminars (Levent, 2011).

*Enrichment:* In the enrichment model, intellectually gifted students are placed in normal classrooms with their peers; their subjects, projects and activities differentiate within the scope of the normal process and content (Davasligil, 1995).

*Grouping:* According to Baykoc-Donmez (2009), this method is the long or short term, classroom or out-of-class groupings made between children with similar talents with the aim of enabling them to work together.

*Mentoring:* Mentoring is an effective strategy in offering academic and emotional benefits for intellectually gifted students of all age groups. Principally, it is the process of fully learning a child's own ideas, skills, opinions and emotions by spending time together. The mentor can be an adult, a teacher or an older age child (MoNE, 2012).

Gifted students are those who have different developmental features than their peers and who possess different academic and cognitive needs which cannot be met by a standard educational system. As a result, it is necessary to use alternative educational models designed by making certain changes to the curriculum and which are appropriate for the interests, learning styles and learning paces of gifted students. The purpose of this study is to examine the mentoring process in the education of gifted students and to develop a model applicable for the Turkish Educational System.

## **Methodology**

The focus group interview method, a form of qualitative research, was used in this study. Domestic and international resources in the literature were examined and the practices which were deemed appropriate for a model for Turkey were emphasized. According to Sahsuvaroglu and Eksi (2008), focus group interview is a series of discussions planned to identify a pre-determined group of participants' opinions on a pre-determined subject. Nine focus group interviews with eight different sample groups were carried out in this study, voice recordings of the interviews were taken with the participants' permission. A semi-structured interview form was developed by the researcher and used for the interviews. These interviews were transcribed into written form by the researcher and the scripts were then read and coded. Content analysis was conducted to group participants' answers into categories. Content analysis is the process of collecting similar data based on

certain concepts and themes and interpreting these by organizing them into comprehensible forms (Yildirim & Simsek, 2003). Themes and sub-themes were created based on the data. Because the issues on gifted student's education and adapting mentoring in education are new subjects for the Turkish Educational System, the international literature was resorted to in creating a Mentoring Model (BBBS, 2015; Clark, 2013; Clasen & Clasen, 1997, 2003; Clutterbuck, 1998; Levent, 2011; TBMM, 2012; Sak, 2014; Kocabas & Yirci, 2012; Siegle, 2005; Smith, 2007; Yirci, 2009).

Active shareholders in the education for gifted students such as the administrator, teacher, parents and the student were included in the study sample to increase diversity. Expert opinion was sought in creating and interpreting the themes. Voice recordings, transcribed texts and content analysis results were shared with experts and necessary edits were made based on their feedback.

The questions of the semi-structured interview form were as follows:

- What are the main problems in Turkey in the education for intellectually gifted individuals?
- What changes should be made in the educational system to eliminate these problems? What are the solutions?
- What do you think mentoring is? How effective will it be in eliminating current problems?
- What are the advantages of the mentoring program for the intellectually gifted?
- What are the disadvantages of the mentoring program for the intellectually gifted?
- Can the mentoring program for the intellectually gifted be applied in Turkey?

One public institution (School A) and one private institution (School B) that provide education for gifted students in Istanbul were selected as the study group. Focus group interviews were carried out with 7 administrators, 14 teachers, 10 parents, and 12 students based on the volunteering principle and the purpose of the study. The criteria in determining the study group of this study was having been identified as gifted based on the results of the Wisc-r intelligence test. School A and School B accept students to the school according to the results of the Wisc-r intelligence test.

## Findings

The themes and participant opinions regarding the interview questions are given in Table 1, Table 2, and Table 3 in this section.

**Table 1.** Main Problems in Educating the Intellectually Gifted and Solutions

Theme	Opinions about the Theme
Educational Politics	Sustainable educational policies are not planned in Turkey. Gifted children's education needs to be revised.
	Lack of standards and curriculum in the education for gifted students is a major problem. A tested and implemented curriculum should be created and evaluated.

	<p>We need an education differentiated according to the type of intelligence and talent. Differentiated education programs should be applied to various education models.</p> <p>The current education program restricts a gifted student. We need a program which promotes creativity, leadership and problem solving.</p> <p>Exams such as TEOG, LYS significantly affect these students' futures. We need a process and product-based evaluation system not exam-based. Performance-based measurement should be improved and periodical evaluations should be conducted.</p>
Human Resources	<p>The department of intellectually gifted students teaching is present in a limited number of universities.</p> <p>There is a lack of teachers trained in Turkey. Courses of this field should be included in the curriculums of Department of Education. Students should be guided to do internship in these fields.</p> <p>Very little information about gifted students is provided in the department of education and in-service training programs in Human Resources.</p>
Diagnosis	<p>Tests convenient for Turkey's standards and our culture should be developed.</p> <p>Diagnoses should be carried out by qualified experts with the support of the government. A diagnosis should be made at an early age.</p> <p>A comprehensive diagnosis hasn't been made.</p> <p>Various diagnostic models which assess different talents are required.</p>
Family Education	<p>Families are not aware of this issue, family education should be prioritized.</p> <p>Parents whose child is diagnosed as intellectually gifted have major expectations from their children.</p> <p>The family and the school should work together.</p>

It is evident in Table 1 that the participants stated lack of government support, standards and curriculum in the education for gifted students as major problems. As a solution for these problems, it was suggested that a department in the Ministry of Education should be established and various education models should be implemented on differentiated education programs. The majority of the participants emphasized that in order to train a qualified person, graduate and post-graduate programs should be qualitatively and quantitatively reinforced. They also stated that intelligence tests and broadly participative screening tests, that are appropriate with the Turkish culture, should be conducted and families should receive regular training on this issue.

**Table 2.** Definition, Advantages and Disadvantages of Mentoring

Mentoring	It is the process of a person training a child, with a high level of experience, competency and knowledge in the field the child wants to specialize in.
	Guiding, counseling and motivating.
	It is in other words a master-apprentice, a lala and an atabeg relationship.
Advantages	Gifted students have special needs and these can only be met by a mentor.
	The mentor guides the students and shows the way to them.
	The student meets an expert who would be their role model.
	The mentor deals with the child's psychological and emotional problems.
	A face-to-face, special education service can be provided.
Disadvantages	If the mentor lacks full knowledge of formation, he or she will fail to convey it to the student.
	Students will be indifferent and reluctant towards the process if experts in the field are not employed.

According to Table 2, while participant definitions for the concept of mentoring refer to a master-apprentice relationship, a process of an experienced and competent person training a child; their definitions for mentor refer to a person who; guides the student, shows the way, is superior both in age and experience to the child, and who is like a lala-atabeg. Participants stated that intellectually gifted students have special needs which only wise, expert and experienced mentors can meet. Within such a program, students will meet an expert who would be a role model and who would guide them. In addition, it was indicated that if planning is not sufficient or the characteristics of the mentor are not fully identified in the mentoring program, then negative outcomes such as lack of motivation and reluctance will occur.

**Table 3.** Applicability of the Mentoring Program

Theme	Opinions about the Theme
Characteristics of the Mentor	Qualified and expert mentors should be included in this process.
	Students should be trained by wise, knowledgeable and adult mentors.
	The mentor should know, understand the child, and have full knowledge of pedagogic formation.
	The mentor should provide psychological and emotional support.
Characteristics of the System	There is a need for a system to train mentors.
	The foundation and philosophy of mentoring should first be identified.
	Sustainability should be ensured through academic practices and distance education.

According to Table 3, the participants underlined that radical changes should be made in the education system in order to implement mentoring. Participants stated that the

foundation and philosophy of mentoring should be determined first and that effective mentoring can only be achieved by employing experienced and knowledge mentors.

### ***Mentoring Model in the Education for Gifted Students***

*Role of the Mentoring Model within the Ministry of National Education:* In this study, establishment of a mentoring model under the Ministry of National Education, General Directorate of Special Education Guidance and Counseling Services, Department of Special Talents Development is suggested. This practice will be in accordance with the Department of Special Talents Development's purpose "to develop, evaluate and expand education models for the education of gifted individuals". With regards to the study data, it was suggested that Department of Special Talents Development should change to "Department of Developing the Gifted and Mentoring". Thus, talent development and mentoring responsibilities of the department would be under a single board. In addition to talent development, the purpose of the Department is to; examine mentoring models of different countries and to develop sustainable and productive education policies under the Turkish Education System for gifted students, to plan, conduct and coordinate mentoring activities, and to train mentors through organizations such as in-service training and make any necessary revisions in the mentoring model based on the feedback received.

*Organizational Structure of Provincial and District Directorate for National Education:* A "Mentoring Implementation and Research Board" under the Provincial and District Directorates for National Education should be established in order to effectively practice and expand the mentoring model. The Mentoring Implementation and Research Board will be established under the Directorate for Special Education and Guidance by a vice-principal or departmental manager. The purpose of the board is to conduct various mentoring programs for gifted students throughout the province and district, to train mentors, and encourage gifted students about the program and to meet the academic and individual needs of these students.

*Establishing the Mentoring Implementation and Research Board:* The main authority and responsibility for establishing the Mentoring Implementation and Research Board is entitled to the Provincial and District Directorates for National Education. Teachers or administrators can be promoted to the board under the authority of the Provincial and District Directorate for National Education. In addition, part-time or full-time staff should be employed. At least one school counselor, one grade teacher, one psychologist, and teachers from numeric and verbal branches, as well as administrators should be employed on the board.

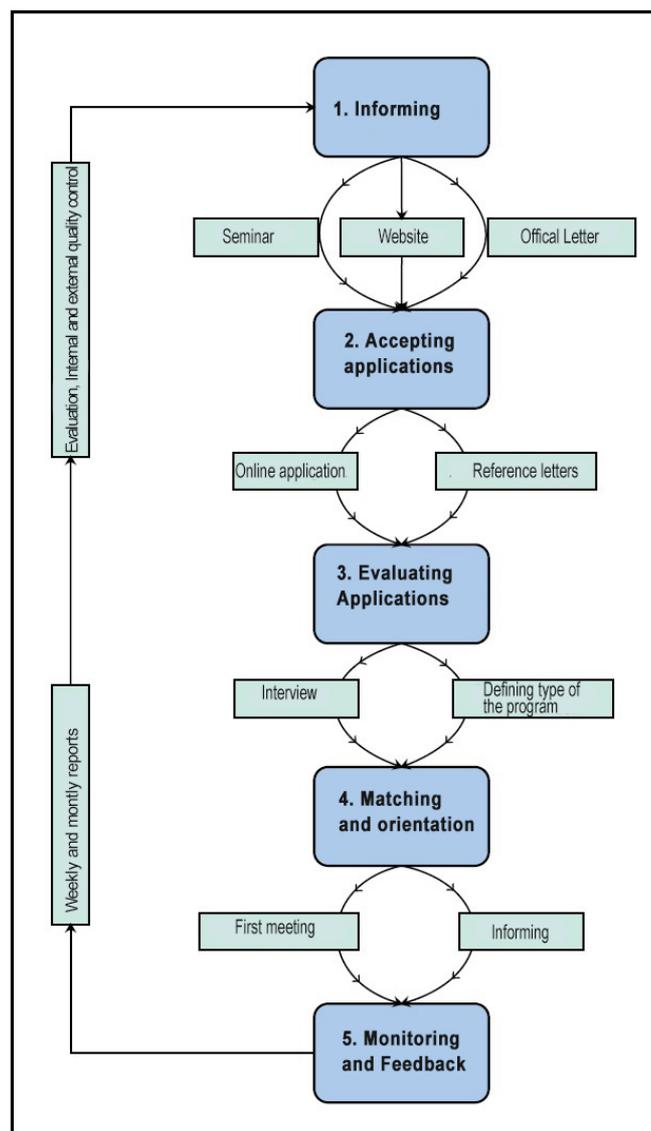
There are different stages of professional career development for teachers and school administrators. Bakioglu (1996) states that teachers should have 11-15 years seniority, who are in the Empiricism-Activism Stage of a professional career in teaching, and have high levels of physical and mental skills due to their own energy, effort, ambition and self-confidence. Bakioglu (1996) asserted that school administrators should have 4-8 years' experience, and who are at the development stage in their career; entering an effective period of professional development and improving their school; feel calm in carrying out administrative duties; conduct effective practices on issues such as personnel relationships, personnel discipline and personnel efficiency. Thus, having at least 10 years' experience should be set as a criterion in selecting teachers, and having at least 5 years' experience in school administration should be set as a criterion in selecting administrators. In addition, the

following characteristics should be considered along with professional seniority for both teachers and administrators:

Post-graduate or doctoral degree in at least one of the fields of Educational Administration and Inspection, Educational Programming and Teaching and Psychological Guidance and Counseling; Received a wage reward or certificate of appreciation during their period of service; Possess effective communication skills; Attended courses, seminars and congresses on administration and counseling.

### **Mentoring Process**

The stages in mentoring and explanations related to the stages are given below: Figure 1. displays the schema for the mentoring process.



**Figure 1.** Mentoring Process

*Informing:* Basic information on mentoring, importance of mentoring, mentoring programs, advantages, related national or international websites etc. will be provided on the

website which the Department of Special Talents Development and Mentoring will design under the General Directorate for Special Education Guidance and Counseling Services. In addition, mentoring will be one of the seminar subjects for in-service training programs. Thus, teachers and administrators will be aware of the practices carried out in the province and districts. Schools will be informed when the mentoring applications start through an official announcement from the district directorate.

*Application Process:* Applications for the program will be carried out online between the dates the Mentoring Implementation and Research Board announce. Students and mentees who want to receive services, and the mentor candidates will upload the required information to the system by completing the application form. In addition, a letter of reference will be sought from mentor candidates.

*Evaluating the Applications:* After examining the online application and the reference letters, mentor and mentee candidates will be interviewed by the board. The purpose of the interview is to get to know the candidates better, and to obtain more detailed information about their personal characteristics and communication skills. The board can also carry out interviews with the family and teachers of the student if they feel it to be necessary. Opinions of the mentors' referees can also be sought. Results can be announced by telephone or via e-mail. Also, the type of program will be determined at this stage, such as online, homework club or one-to-one mentoring, as deemed appropriate for both the mentor and mentee candidates' characteristics.

*Matching and Orientation:* Matching is one of the crucial stages in mentoring. A correct matching will increase motivation and regular participation in mentoring activities for both sides, and will be more likely to enable the targets of the program to be achieved. The mentors and mentees are matched by the board by taking into consideration their personal and academic characteristics and talents. A familiarization meeting will be organized at the Provincial/District Directorate for National Education, or another place where the board decides, in order for both sides to become acquainted. At least one representative from the board will attend the meeting in order to provide information about the purpose of the program, the duties and responsibilities of the parties, and discuss the ethical values that should be followed.

*Following and Evaluating the Process:* After the matching and orientation process, the mentoring board will step back and follow the process for the purposes of inspection only, and for counseling services. The mentor and mentee will create accounts on the mentoring websites and will upload their weekly and monthly evaluations. The mentoring board will conduct follow-up evaluations using these reports. The mentoring board will take any necessary precautions against unproductive and disfunctioning relationships. For example, the mentor could be changed if that becomes necessary. At the end of the mentoring process, a survey and interview should be carried out by the board in order to assess the resultant effects of the process on both parties, and the academic achievement, social relationships, attitudes and behaviors of the student should be noted. Internal auditing of the mentoring process will be assigned to the Provincial/District Mentoring Implementing and Research Board; external auditing will be assigned to the Department of Special Talents Development and Mentoring. Provincial and district boards should report on the activities carried out in their area along with submitting qualitative and quantitative data to the Department of Special Talents Development and Mentoring for each reporting period and

year. Based on the data, the Directorate will make required regulations on the mentoring policies and will evaluate mentoring practices carried out in Turkey.

### **Conclusion and Discussion**

Qualitative research model was used in this study which aimed at examining mentoring in the education of gifted students and developing an appropriate model. One public and one private institution providing education for gifted students in Istanbul were selected as the study group of this research. Focus group interviews were conducted with 43 people, selected based on the volunteering principle. The study data indicates that the most crucial problem in the Turkish Education System according to gifted students, is a lack of governmental support and appropriate educational policies. Lack of curriculum and standards, not implementing various educational models and low numbers of educational institutions delivering education for gifted students is seen as a major problem. However, it is observed that this is also a global issue. According to Reis and Renzulli (2004), intellectually gifted students have various and unique needs which cannot be met by standard education institutions. According to the National Commission on Excellence in Education's (1983) Society Under Risk Report, half of the intellectually gifted students in America fail to display their performances. According to the National Excellence Report (National Commission on Excellence in Education, 1983) published by the United States Ministry of Education, the formal education system restricts gifted students and even avoids them. Detailed educational needs of intellectually gifted students are not at the forefront in standard classrooms (Jordan, 2007).

According to a Turkish Parliamentary Investigation Report on Gifted Students' Education (TBMM, 2012), a master plan which will constitute the basic policy in the field of giftedness, which will include various strategies and which would be valid throughout the country, should be developed and an independent, effective and sustainable structure that will carry out the plan and promote evaluation should be established. An institution for gifted individuals' education should be established under the Ministry of National Education or OSYM (Student Selection and Placement Exam). A screening and situational assessment addressing the whole country hasn't been conducted. Also, there have been no high level or significant attempts at training gifted students such as through certain educational institutions, differentiated curriculum, or educational models. Certain practices such as acceleration, enrichment, mentoring and grouping should become prevalent (Akarsu, 2001; Baykoc-Donmez, 2009; Saricam & Sahin, 2015). The grouping process of the skills on academic, art, leadership, creativity, and social and emotional needs should be taken into consideration when preparing a program for gifted students (Purcell & Eckert, 2006). Gifted students are students who are interested in various areas, are curious, and who always investigate and question. Thus, they have academic and cognitive needs which their school teachers often fail to meet. In addition, they become bored or don't want to listen to the class because they learn certain subjects faster than their peers, or because they already know the subject. If the approach and intervention of the grade teacher is not sufficient, the student will encounter problems such as unexpected low achievement levels, low levels of motivation and negative attitudes displayed towards school and to the courses. Gifted students require the counseling services of wise and experienced people.

One other problem encountered in the education for the gifted is the need for trained and qualified teachers. This problem can prevent gifted students from displaying their actual potential. Tomlinson and Callahan (1994) state that teachers who lack the education and training required for the field of the intellectually gifted will fail to meet the special needs of these students. According to the McKinsey Report (Barber & Mourshed, 2007), it is an irremediable loss for students who are placed in a grade teacher's classroom who lacks knowledge about the education of intellectually gifted students. According to Renzulli and Reis (1985), teachers should receive orientation and training about the education models applicable for intellectually gifted students, as well as their learning styles and behavioral characteristics. Deficiencies in teacher training and professional development cause a lack of motivation, lower levels of achievement, and a reluctance of the students in certain academic subjects (Reis, 2008). In Turkey, only a few universities have a "Graduate Program for Teaching the Intellectually Gifted". There are no compulsory courses about gifted students in the curriculums of other departments under the Faculty of Education. This subject is mentioned only briefly in courses on special education. The needs of gifted students, who carry different academic and pedagogical characteristics from their peers, are met primarily by the personal efforts of certain teachers. There are no practices within in-service training programs about educating gifted students. The Ministry of National Education is expected to take the necessary steps to fill the gap on this issue.

There are certain deficiencies in family education and arising social awareness. The terms "gifted" and "intellectually gifted" are not clear in society. Most parents lack the knowledge on how to treat their children under certain conditions. While some families expose their children to pressure from time to time, other families let their children run too free. Foundation work on issues such as family education and social awareness should begin. It is known that the primary responsibility in raising a child is within the family. The duties and responsibilities that families undertake for the sake of their children increase when their children are diagnosed as gifted (Levent, 2013). Jeon (1990) states that psychological guidance and counseling services can organize social and emotional experiences for an intellectually gifted child by focusing on changing their personal and family dynamics. At this point, group and family counseling can be effective, along with individual counseling sessions (Jeon, 1990).

Results of the study also put forward participant opinions concerning the features of the mentor. According to the participants, characteristics of the mentor are the primary factor in the success of a mentoring process. Two features were prominent throughout the focus group interviews. The first feature was that the mentor should have scientific expertise in the field so as to provide satisfying answers to each question the student asks. The second feature was that the mentor should have the formation knowledge to convey information to the child through an appropriate method. These findings are in line with the studies that suggest that mentors should have expertise and knowledge (Emerson-Stonell & Carter, 1994; Davis & Rimm, 2004; Yorulmaz, Altinkurt & Yilmaz, 2015; Johnson & Nelson, 1999; Ozdemir, 2015), be willing to share knowledge (Niehoff, 2006; Gordon, 1991; Bullough, 2005), be a role model (Bisland, 2001; Cohen, 1995; Yirci & Kocabas, 2010), use effective communication skills (Rose, 2003; Awaya et al., 2003), and be a loyal friend and counselor (Mullen, 1998; Kram, 1985; Alleman & Clarke, 2000). With this point of view, characteristics of a mentor are common across many cultures (Yirci & Kocabas, 2010).

One other issue this study dwells upon is the applicability of the Mentoring Model in the Education for Gifted Students. Results of the study indicate that, in order to implement the Mentoring Model in Gifted Students' Education, two basic changes should be made in the central and provincial organization. In this study, the establishment of a central unit under the Ministry of National Education, General Directorate of Special Education Guidance and Counseling Services, was suggested. It was suggested that the Department of Special Talents Development, which is at present within the General Directorate structure, should change to the "Department of Developing Special Talents and Mentoring". Thus, a unit would be established for planning and coordinating mentoring activities in the education of gifted students. Secondly, a "Mentoring Implementation and Research Board" should be established under the Provincial and District Directorates for National Education. The primary duty of the Mentoring Implementation and Research Board is to make situational analyses at the provincial or district level, and to conduct and follow the required mentoring program. Thus, the needs of gifted students will be satisfied.

According to Grassinger et al. (2010), although used very rarely, mentoring is the most effective pedagogical method in the field of gifted students and the reason for this is because mentoring lacks the conceptual basis for gifted individuals. According to Freeman (2001), mentoring is a special type of solution for students whose needs are not traditionally met by the school. According to Torrance (1984), many gifted individuals have failed to improve their skills or had to abandon the field they are skilled in because they didn't have a mentor. Gifted students require additional resources and information other than currently available through their schools. These students also need role models, guidance and counseling. Mentoring, which is being implemented in various areas of the working sector throughout Turkey, will be an effective solution in meeting the special needs of students when applied in the field of education. According to the study results, measures that can be taken to solve educational problems of gifted students are:

Necessary steps should be taken to diagnose gifted students at an early age. Overall screening tests and basic talent tests should be conducted on all preschool students. Intelligence and talent tests can be conducted on children who achieve over a certain score from these tests. Thus, intelligence and talent levels of all students in Turkey can be profiled in the long run. Also, commissions should be established to develop tests appropriate and unique for the Turkish culture, and they should collaborate with universities and science institutions.

Standards should be set that can guide gifted students, meet their cognitive and academic needs, and that can train ambitious and competent teachers. The number of Graduate Programs for Teaching Intellectually Gifted Students should be increased. Both compulsory and elective courses should be added to the curriculums of Faculties of Education, with subjects on educating gifted students also added to in-service training programs.

Weekend seminars or certificate programs should be provided for parents with gifted children. Educational institutions, campuses, boarding schools, and talent workshops should be established to serve the needs of gifted students. The Ministry of National Education, universities, municipalities and development agencies should collaborate in taking steps on issues such as process planning, human resources, financial support programs, building and hardware infrastructure.

## Notes

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This study was produced from the thesis “Mentoring in Gifted Education and a Model for Turkey” submitted to Yildiz Technical University, Istanbul, by Lutfu Cakir, under the supervision of Assoc. Prof. Ibrahim Kocabas.

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