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An Examination of Postgraduate Theses Written About the Gifted

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ABSTRACT

This study aims at conducting a qualitative document review of postgraduate theses to scrutinise the studies that can be performed in the most extensive manner on gifted individuals and to show where Turkey is in its study of the gifted. Their importance has been increasingly recognised across the world but only lately noticed in Turkey. In this context, 91master, 33 doctorate theses and 1 specialty thesis obtained from the archive of the Council of Higher Education were examined in the study. According to the findings obtained as a result of the study, the number of theses written on the gifted in Turkey has increased in the last five years. Thesis studies on the gifted have been performed as a quantitative method. As for the population/sample/study group used, it is seen that the theses have mostly concentrated on elementary school students through multi-purposive sampling method. It was found that scales are the most used measuring tool in the theses and the independent t-test is the most used test to analyse the data obtained.

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Keywords:
Gifted, Highly intelligent, Specially talented, Postgraduate thesis, Qualitative document review

Introduction

Intelligence and talent have been interesting subjects for a long time. It is expected that these two concepts will be in the forefront in the future too based on their roles of ensuring societies' development levels and welfares. Now, what do such intriguing concepts mean? When examining the literature, there are several different definitions. For example, intelligence can be explained as the innate ability to learn; nutrition; to understand concrete or abstract relationships shaped by various factors due to the surroundings, to think in an abstract way, reason and use mental functions in accordance with the objective in multiple areas (Özcanar & Bildiren, 2012). Flynn (2007) argues that understanding intelligence is like understanding the atom; it can only be explained by finding out the pieces that hold intelligence together, dividinge it and unitinge it. Whereas Binet defined intelligence as reasoning, deciding reasonably, criticising oneself and manipulating thoughts in accordance with a certain objective. Piaget stated that intelligence is individuals adapting to the surroundings through capability and accommodation behaviours (act Kuzgun & Deryakulu, 2004). Giftedness is composed of complex components and this indicates that the developmental processes of gifted individuals are different from individuals with normal mental capability (Leana-Taşçılar & Kanlı, 2014). Giftedness, intelligence and talent are fluid concepts and may look different in different contexts and cultures (National Association for Gifted Children, 2015). Along with the terms used for children who are superior to their peers in terms of intelligence and talent such as 'highly intelligent', 'superiorly talented' and 'specially talented', the term 'gifted' has started to be used in recent years (Kıldan,2011). Gifted individuals have specific traits in social and moral fields primarily mentally (Çetinkaya & Kıncal, 2015) and exhibit different needs from their peers developmentally. Gifted children have more

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needs and expectations than their peers in terms of mental excitement, struggles with difficulties, creativity, exploration and production (Özbay, 2013). Gifted children, who constitute the group in need of educational support, are the group which benefits from educational opportunities the least. They are deprived not only of the opportunities to be offered but also of the necessary social sensitivity (Çetinkaya & Döner, 2012).

5% of the population of a country on average is composed of individuals who are under and above the normal level of intelligence. 2% of them include those who are superior in terms of talent and intelligence (Maryland, 1972 act Çepni, Gökdere & Küçük, 2002). According to the Turkish Statistical Institute (2012), there are about 18.750.000 children between the ages of 3 and 18 taking into consideration that the annual birth rate is 1.250.000 on average in Turkey. In the light of these data, it can be predicted that there are 375.000 to 562.500 gifted children according to the percentile accepted for giftedness. These gifted individuals form an important issue that concerns about one and half million people when their families are taken into consideration.

It is seen that discussions on 'giftedness' have tended to increase on a national and international scale in the last quarter century. Correspondingly, there have been special practices, symposia, publications, institutions, and undergraduate and postgraduate programmes available about the subject and it is said that it represents a great loss that those children have not been necessary importance (Turan, Öz & Yalçın, 2014). There are several researches (Feldhusen & Kolloff, 1986; Gagne, 1991, 2000, 2009; Maker, 1982; Renzulli, 1977; Renzulli & Reis, 1985; Tomlinson et al., 2002; van Tassel-Baska, 1986) concerning gifted education in developed countries (act Tortop, 2012a). Primary research subjects include different way the gifted think and how their brains function (Sousa, 2003), neurobiological foundations of giftedness (Mrazik & Dombrowski, 2010), the things done for the gifted (Freeman, 2011), the root and end of giftedness (Winner, 2000).

Studies on the gifted in Turkey began at the beginning of the 1960s; however, no significant results had been achieved until 1993. When one considers that studies in the USA also began in the 1960s, it can be understood how gifted education in Turkey has fallen behind (Gökdere, Küçük & Çepni, 2003; 2004). It is observed that there is a significant quantitative and qualitative deficiency in this area in Turkey despite the conspicuous increase of the congress (ÜYEK, 2016; IV Zeka ve Yetenek Kongresi, 2016; 1.Türkiye Üstün Yetenekli Çocuklar Kongresi, 2014; II. Zeka ve Yetenek Kongresi, 2014; 3. Türkiye Üstün Yetenekli Çocuklar Kongresi, 2012; II. Ulusal Türkiye Üstün Yetenekli Çocuklar Kongresi Yeni Açılımlar, 2009; IV. Üstün Zekalı ve Yeteneklilerin Eğitimi: Üstünler ve Gelecek, 2004), the projects (Üstün Yetenekli Okul Öncesi ve İlköğretim Dönemindeki Çocuklarin Eğitim Programlarının İncelenmesi, 2005; Üstün Yetenekli Çocuklarin Tanı Yöntemleri, Eğitim Programlari ve Aile Danişmanliği Çalişmalarinin Ileri Aşamada Geliştirilmesi Ve Değerlendirilmesi, 2007; Türkiye'de Üstün Zekâlı Çocukların Eğitimi İle İlgili Bir Model Geliştirme Projesi, 2002; Üstün/Özel Yetenekli Çocuklara Destek Eğitim Hizmetinin Sağlanması, Toplumsal Bilinç ve Duyarlılığın Arttırılması Projesi, 2014; TÜBİTAK 2229 Üstün Yeteneklilerin Eğitiminde Çağdaş Yaklaşımlar-Proje Danışmanlık Eğitimi Projesi, 2014; TÜBİTAK 2229 Üstün Yeteneklilerin Eğitiminde Çağdaş Yaklaşımlar-Proje Danışmanlık Eğitimi Projesi, 2016; ÜYEP Tanılama Modelini Güçlendirecek Yeni bir Genel Zeka Testi Modelinin Geliştirilmesi, 2015-2016; Proje IQ: Türkiye'nin İlk Yerli Zeka Ölçeğini Geliştirme, Standardizasyon ve Norm Çalışması, 2015-2017; ÜYEP Tanılama Modelinin Güncel Kuramlarla ve Araştırmalarla Yenilenmesi, Anadolu Üniversitesi Bilimsel Araştırma Projeleri, 2014-2015; ÜYEP Modelinin Teorik Yapısının Güncel Kuramlarla ve Araştırmalarla Yenilenmesi, Anadolu Üniversitesi Bilimsel Araştırma Projeleri, 2013-2014; Üstün Yetenekliler Eğitim Programları (ÜYEP)'nın Genel Gelişimsel Kazanımlarının Alan Uzmanlarınca Alt becerilerinin Belirlenmesi, 2011-2012; Üstün Zekalıların Tanılanmasında ve Bilimsel Yaratıcılığın Ölçümünde Kullanılan Bilimsel Üretkenlik Testi'nin Psikometrik ve Teknik Özelliklerinin İyileştirilmesi ve Evrensel Kullanıma Uyarlanması, 2010-2011; TÜBİTAK 107K059 Üstün Zekalı Öğrencilerin Tanılanmasında ve Eğitimlerinde Üçlü Matematiksel ve Bilimsel Yetenek Modeli, 2007-2010; Üstün Yetenekli ve Zekâlı Çocukların Öğretmenlerine Yönelik Stratejiler Projesi, 2015) and the reports (Üstün Zekâlı Ve Üstün Yetenekli Çocukların Eğitiminde İyi Uygulamalar Çalıştayı, 2016; Üstün Yetenekli Çocukların Gelişimi Ve Eğitimi, 2015; 1. Uluslararası Üstün yetenekliler sempozyumu, 2010; MEB Üstün Yetenekli Bireyler Strateji ve Uygulama Planı 2013 – 2017, 2013) in consideration of modern practices about the subject although the practices concerning gifted education have a long history (Sak, 2011). In accordance with these facts and due to the high importance of postgraduate theses in universities in terms of scientific knowledge (Karkın, 2011), the research is based on the need for the examination of the theses

which are the most extensive studies that can be conducted on the gifted. Even though similar studies have been conducted on the gifted in previous years (Güçin, 2014; Özenç & Özenç, 2013), the fact that different variables from the ones in other studies were investigated in this study and the number of theses on the subject have increased, distinguishes it from others. In consideration of the investigations on theses in different branches, they have concentrated on bibliometric analyses, content analyses and topic distributions of the theses, the most cited sources, research methods used and data collection techniques (Al & Tonta, 2004). In this research, a qualitative document review was performed on the postgraduate theses concerning the gifted in Turkey to guide other researchers who are planning to do research on the same subject. The results of this study, in terms of showing the way to new activities, are important because they reveal the features, the pros and cons of the studies towards the identification, training and integration into society of gifted individuals, based on the individual differences that have gained special prominence today.

Method

A qualitative document review method was used in the research. The aim of a qualitative document review method, which can be used as a screening method singly in cases where it is difficult to have observations and interviews, allows analysis of the documents in detail containing written information about the investigated events or cases (Yıldırım & Şimşek, 2008). In this study, this method is preferred in order to try to examine all of the theses conducted for the gifted in Turkey, according to some variables.

Population of the Research

The population of the research is composed of all the theses concerning the gifted published on the website of the Council of Higher Education (YÖK). 125 theses were obtained. 81 of the theses are wholly published on the website while there is only abstracts on 44 of them. Authors of 36 out of 44 theses were contacted and the complete studies were obtained. Information on 8 studies was obtained from their abstracts.

Coding and Analysis of the Data

The research data were collected on the Thesis Browsing Center of YÖK website in September 2015. 'Gifted and highly talented', 'highly talented', 'superiorly gifted', 'specially talented', 'Enderun', and 'science and art centers' were used as key words to browse the theses. The permission status for the theses was marked as 'all' in the process. Authors of the theses for which there is no permission were contacted; abstracts of the theses of which authors could not be reached were used.

Details on the study identity and the study content for the researches were grouped under ten subtitles. These include; year, type of publication, research methods, research models, type of sample, population/sample/study group definition, data collection tools and data analysis techniques. A form presenting all the subtitles was prepared and 125 theses were examined using this form. Data obtained from the form were entered to the SPSS 20.0 software package and data obtained for each subtitle were transformed into graphics, frequency and percentage tables to present them descriptively.

Findings

Distribution of the Theses by Years

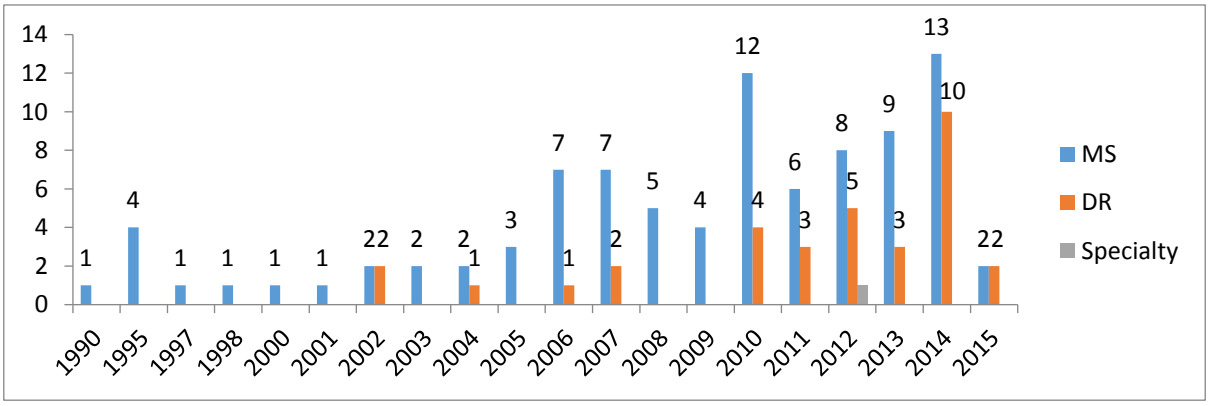


Figure 1. The distribution of the theses by years

According to the information in Figure 1, theses on the gifted started to be written in 1990 in Gazi University with the study *"Üstün Yetenekli Öğrencilerin Yetenek, İlgi ve Meslek Değer Algıları ile Rehberlik Hizmetleri"* written by Yüksel (1990). No theses had been written on the subject before. From 1990 to 1995, there were no studies performed on the gifted. 2014 was the year in which most of the theses were written on the subject so far. It is followed by 2010 with 16 theses, 2012 with 14 theses and 2013 with 12 theses. It can be understood from Figure 1 that theses on the gifted have increased in the last five years. The number of theses written in 2015 has been 4 as of the date of examination. On the other hand, it is possible that the number will go up by the end of the year. The increasing number of theses on the gifted in recent years can be explained by the increasing importance given to the subject in Turkey.

There are three types of theses written in institutes: master, doctorate and speciality in medicine. Among 125 theses, there are 91 master theses, 33 doctorate theses and 1 speciality in medicine thesis. According to the graphic prepared, no doctorate theses had been written on gifted children before 2000. 9 master theses were written between 1990 and 2002. The number of both master and doctorate theses increased after 2010. 2014 was the year in which the number of both master and doctorate theses reached the highest level. Only one speciality in medicine thesis has been written on the gifted in Turkey about "Emotional and Behavioural Characteristics of Gifted Children and Their Families" by Yıldırım (2012) so far and it was released in 2012. According to the distribution of the theses by years, it seems that more master theses were written following the year 2005 and the number of doctorate researches went up after 2010.

Distribution of Theses by Thesis Types and Method Types

Table 1. Number of the research models used in the studies by the method types

Method types	Research models	Number of studies
Quantitative	Screening	37
	Descriptive	25
	Experimental	24
	Correlational	5
	Causative	2
	Total	**93**
Qualitative	Case Study	17
	Action Research	2
	Phenomenology	0
	Ethnographic	1
	Cultural Analysis	0
	Grounded Theory	0
	Total	**20**
Mixed	Sequential Explanatory	6
	Sequential Exploratory	3
	Concurrent Triangulation	3
	Concurrent Nested	0
	Total	**12**

Theses are examined by three groups of methods: quantitative, qualitative, and mixed. When the methods on which the theses were based was examined, it was seen that the theses on the gifted are mainly based on the quantitative paradigm. 93 of them were written with quantitative methods; the number of

theses written in accordance with the qualitative paradigm is 20. The mixed paradigm in which both quantitative and qualitative paradigms were used was preferred in 12 studies. In the light of these findings, quantitative methods have been primarily used in the theses written on the gifted whereas the number of theses written with qualitative and mixed paradigms have been low.

The researches in question were also examined in terms of the research models other than the method types. According to Table 1, 37 of 93 quantitative studies used the screening model, 25 of them used the descriptive model, 24 of them used the experimental model, 5 of them used the correlational model and 2 of them used the causative model. The case study is the research model which was used the most among 20 qualitative studies with 17 studies. The action research model was used in 2 studies and followed by 1 ethnographic model. Phenomenology, culture analysis and grounded theory models which are included in qualitative methods were not used in any theses. 12 theses used the mixed method among 125 thesis studies and half of them benefitted from the explanatory model. The exploratory and triangulation models were only used 3 times each in the theses; on the other hand, none used the nested model.

Distribution of Sampling Types

The types of sampling used in the theses were also examined within the scope of the study. In 52 of the theses examined, no information was found on the types of sampling. Only one thesis about "T*he 6th -8th Gifted Students's Emphatic Tendency, Life Satisfaction and Family Life According To Their Sociometric Status in Two Different Academic Enviroment*" written by Hatice Akkan (2012) stated that a population was used in that study. The results obtained concerning the number of types of sampling used in the other 72 theses are given in Table 2.

Table 2. Number of the studies by types of sampling

Type of sampling	Number of studies
Purposive	33
Simple random	16
Convenience	12
Stratified	8
Cluster	2
Snowball	1
Total	72

The most used sampling type, in the thesis studies conducted on the gifted, is the purposive sampling with 33 studies. In the purposive sampling, cases that are rich in information are chosen in accordance with the purpose of the study (Büyüköztürk et al., 2013). It is an expected outcome for the most of the studies because the sampling received from SACs (Science and Art Centers) where gifted children are identified was worked on. Simple random (16), convenience (12), stratified (8), cluster (2) and snowball (1) sampling methods were used in other studies.

Distribution of Theses by Study Group/ Sampling/ Population

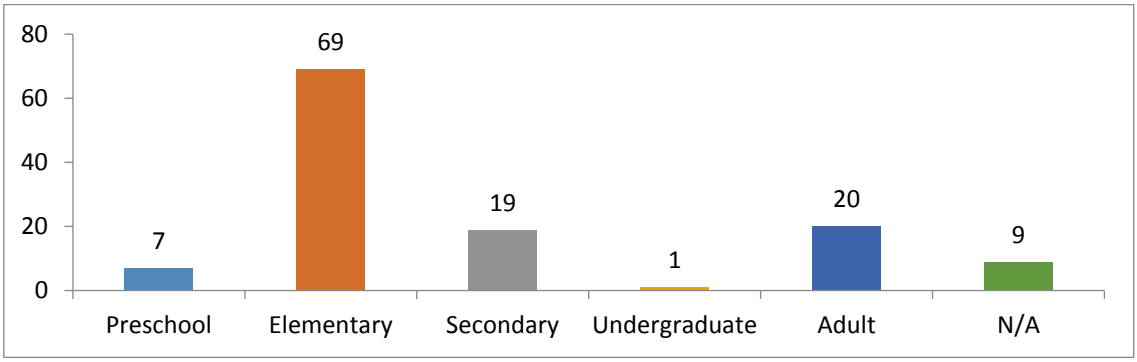


Figure 2. Number of theses by study group, sampling, and population

The theses written on the gifted were also examined in terms of study group, sampling and population. According to Figure 2, elementary school students are the most studied group in 125 studies. The main reason may be that there are more elementary school students at SACs where gifted students are educated. Adults were studied in 20 studies. Teachers or parents of gifted students rather than gifted adults were investigated in those studies. 19 studies studied secondary school students, and 7 studies addressed preschool students. Only one study *("Gifted Underachievers and Factors Affecting Underachievement"* written by Uğur Başlantı (2002)) handled undergraduate students, and they were asked to give their opinions about gifted students. Since 9 of the thesis studies examined were document reviews, there is no sampling or study group available.

Distribution Theses by Data Collection Tools

The theses written on the gifted were also examined in terms of data collection tools. While information on which measuring tools were used was available in 118 of 125 theses in total, no related information could be found in 7 studies. The findings obtained are given in Table 3.

Table 3. Data collection tools used in the theses

Data collection tools	Number of studies used
Scale	41
Interview	9
Questionnaire	6
Achievement test	3
Observation	2
Total	61
Achievement test + Scale	13
Questionnaire + Scale	12
Interview + Scale	8
Achievement test + Observation	4
Questionnaire + Observation	3
Interview + Observation	3
Questionnaire + Achievement test	2
Achievement test + Interview	2
Observation + Scale	1
Total	48
Achievement test + Scale + Interview	3
Achievement test + Observation + Interview	2
Questionnaire + Interview + Scale	2
Achievement test + Scale + Observation	1
Interview + Observation Scale	1
Total	9
Grand Total	118

According to Table 3, a single data collection tool was used in 61 studies, two different tools were used in 48 studies and 9 studies benefitted from three different data collection tools. In the studies in which a single data collection tool was used, scale is the most used. 41 studies only used scales and it is seen that usually attitude scales were used in those studies. 9 studies only used interview forms, 6 studies only used questionnaires while only achievement tests were used in 3 studies and observation forms in 2 studies.

Scales and achievements tests were the most used tools in the studies using two different data collection tools together. In 13 studies, achievements of gifted children were measured and the relationship between the achievement and different attitudes was investigated. Questionnaire and scale (12), interview form and scale (8), achievement test and observation form (4), questionnaire and interview form (3), observation and interview form (3), questionnaire and achievement test (2), and observation form and scale (1) were used together in a total of 33 studies. The number of studies in which three different data collection tools were used together is 9 and achievement test, scale and interview form are the tools used together the most. 3 studies measured the achievement of the students, the relationship between any attitude (self-efficacy, interest, etc.) and their achievement was investigated, and the findings were supported by students' opinions. An achievement test, observation and interview form (2), interview, observation form and scale (2), achievement test, scale and observation form (1) and observation form, interview form and scale (1) were used together in the studies.

Distribution Theses by Types of Data Analysis

The types of data analysis used in the theses were examined within the scope of the study. Table 4 gives the types of analysis used in quantitative, qualitative and mixed types. In the table, nonparametric analyses that correspond to the parametric tests used in the studies are presented without any discrimination.

Table 4. Types of data analysis used in studies based on methods

Method	Types of analysis	Number of studies used in
Quantitative	Independent t-test / Mann Whitney U test	65
	ANOVA / Kruskal Wallis H test	48
	Correlation	28
	Paired samples t-test / Wilcoxon Signed Rank test	13
	Descriptive	7
	Percentage-Frequency	7
	Regression	3
	MANOVA	3
Qualitative	Descriptive	11
	Content analysis	7
	Constant comparison	2
Mixed	**In the Quantitative Part;**	
	Independent t-test	8
	ANOVA	2
	Correlation	2
	In the Qualitative Part;	
	Descriptive	6
	Content analysis	5
	Predictive	1

According to Table 4, the independent t-test / Mann Whitney U test is the most used type of analysis with 65 studies. It is followed by the ANOVA / Kruskal Wallis H test, Correlation, Paired samples t-test / Wilcoxon Signed Rank test, Descriptive, Percentage-Frequency, Regression and MANOVA respectively. In 11 out of 20 studies conducted with qualitative methods, the descriptive analysis was used while 7 of them used the content analysis and 2 of them benefitted from the constant comparison method. 12 studies were conducted with the mixed paradigm and the analysis methods used in quantitative and qualitative sections

of those studies were examined separately. Accordingly, in 8 of the quantitative sections of the studies using the mixed method, the independent t-test was preferred while 2 of them used ANOVA and another 2 used the correlation technique. In the qualitative sections, descriptive statistics (6), the content analysis (5) and the predictive method (1) were used.

Discussion and Conclusion

The qualitative document review of the postgraduate theses written on the gifted in Turkey was examined in this research. 125 thesis studies written on the subject were examined in terms of year, type of publication, research methods, research models, type of sample, population/sample/study group definition, data collection tools and data analysis techniques.

According to the findings obtained, the number of theses written on the gifted in Turkey has increased in the last five years. This result shows parallelism with the study performed by Güçin (2014) on the examination of articles written on the gifted in Turkey. It can be said that this is in direct proportion to and related to the increasing importance of gifted students in the state's recent educational policies. In the study conducted by Çetinkaya and Döner (2012) on the legal foundations about the gifted, it is seen that, except for the Directive SAC dated February 2007, there are no legal texts concerning the gifted and the current laws have included gifted individuals in other special education groups (such as mental disabilities, hearing and visual disabilities).

As for population/sampling/study groups used in the thesis studies on the gifted, it seems that the theses are concentrated mainly on elementary school students. Diagnosis of gifted individuals, who form only 2% of the general population at early ages, dates back to earlier years (Kuloğlu & Uzel, 2013). Early childhood is the period in which the developmental potential of the child is first noticed. Gifted children, who have not been diagnosed at early ages, can result in ordinary adults because their talents have not been discovered before (Levent, 2014). Like other individuals, whether individuals with special needs use their capacities at their maximum level, depends on the early identification of their potential (Şahin, 2013). However, it is seen that tendencies in gifted education are mainly concentrated in the elementary school period. Since students of third grade and above are accepted to the SACs, it is observed that studies focus on elementary students. It is thought that this enables researchers to access the sample. This view is supported by the fact that it was revealed from the findings of the study that the most used sampling type is the purposive sampling in determining the sampling method.

Thesis studies on the gifted have been conducted mainly using quantitative methods. As for the research models, a screening model in quantitative researches and case studies in qualitative researches are the most used models. A similar finding obtained in the study performed by Güçin (2014) can be explained by the fact that quantitative studies are preferred by the researcher because they are practical, fast and simple. The most used measuring tools in the thesis studies conducted on the gifted are scales. The reason seems to be the focus on the diagnosis of gifted individuals in the studies. The independent t-test is the most used method for analysing the data obtained in the thesis studies on the gifted. This can be explained by the multitude of studies concerning the diagnosis of the gifted and the comparison between gifted individuals and others.

When one examines the educational systems of developed countries, it can be observed that they attach great importance to gifted education. Various models and strategies have been generated due to different educational systems of countries and different points of view about giftedness (Akarsu, 2004). It is suggested by MEB (2010; 2013) that contributing to the gifted education and identifying, improving and guiding the gifted properly will be for the good of the country. The educational requirements of the gifted could be met by methods and techniques that make gifted students active and provide first-hand experience in gifted education (Feldhussen, 1986; Freeman, 1999; Hebert & Neumeister, 2000; Renzulli, 1998; Tomlinson, 1999; act. Tortop, 2012b). These adjustments and developments are only possible through the assistance of universities. It is expected that theses written to this end will contribute to gifted individuals and the development of programmes to improve their talents; therefore, the tendency seems to be increasing and becoming more important. In that context, in consideration of the study's findings, it is observed that the number of studies regarding the gifted has increased in Turkey in recent years. With this increasing trend, it turns out to be necessary to diagnose gifted children, creating programmes specific for gifted children in

different areas and for teachers to diagnose gifted children to make those programmes applicable. From this point of view, it is considered necessary that countries which have been studying this subject for a long time and foreign articles should be examined. However, in this study, only theses written about the gifted in Turkey were examined in terms of some variables. This represents a limitation of the study. In future studies, it is recommended to examine not only the theses, but also articles, projects and reports.

Based on the study findings, studies about the gifted in medicine were observed to be minimal. In foreign-funded studies, it is seen that there are studies that examine the neurobiological structures of gifted individuals (Jin et al., 2007; Mrazik and Dombrowski, 2010; Sousa, 1995). Therefore, it is recommended that neurobiological structures of gifted individuals should be examined and that there should be an increase in the studies in this area in terms of contributing to education.

In theses about the gifted, they are mainly drawn from a selection of primary school students as a population/sample/workgroup. However, with the increasing importance of pre-school and adult education nowadays, it is believed that making studies about gifted individuals in these groups will contribute to the education process. Furthermore, classroom teachers should be trained in the diagnosis of gifted children. By this means, gifted children can be supported and improve themselves.

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