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An Investigation of the Effectiveness and Efficiency of Classroom Teachers in the Identification of Gifted Students

Üstün Zekalıların Tanılanmasında Sınıf Öğretmenlerinin Etkililik ve Verimliliklerinin İncelenmesi

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Abstract

Nomination process is the first stage of the identification process. The effectiveness and efficiency in nomination process of teachers trained and not trained on gifted students were examined in this study. Static group comparison or nonequivalent control group design was used. Teacher rating scale, information form and Raven's Standard Progressive Matrices Plus (RSPM+) were used as the data collection tools. Teachers' effectiveness and efficiency ratios in the identification process were calculated in the data analysis. In identification, efficiency is ratio of number of gifted students identified by teachers to number of students nominated. Effectiveness in identification is the ratio of the number of gifted students identified by teacher to number of students are really gifted. The result showed that the effectiveness and efficacy of teachers attaining training are higher than those not trained.

Keywords: teachers, efficiency, effectiveness, identification, gifted students

Öz

Aday gösterme süreci, tanılama sürecinin ilk aşamasıdır. Çalışmada üstün zekalı öğrenciler konusunda eğitim alan öğretmenler ile eğitim almayan öğretmenlerin aday gösterme sürecindeki etkililik ve verimlilikleri incelenmiştir. Veri toplama aracı olarak öğretmen derecelendirme ölçeği, bilgi formu ve Raven'ın Standart İlerleyen Matrisleri Plus Versiyonu (RSPM+) kullanılmıştır. Verilerin analizinde, öğretmenlerin tanılama sürecindeki etkililik ve verimlilik oranları hesaplanmıştır. Verimlilik, öğretmenlerce aday gösterilen olası üstün zekalı öğrencilerden kaçının gerçekte üstün zekalı olduğu ile ilgili oran iken, etkililik bir grup içerisinde üstün zekalı olduğu doğrulanmış öğrencilerin öğretmen tarafından tespit edilebilme oranı olarak tanımlanabilir. Araştırma sonucunda, konuya ilişkin eğitim almış öğretmenlerin etkililik ve verimlilik oranlarının konuya ilişkin eğitim almamış öğretmenlerden daha yüksek olduğu belirlenmiştir..

Anahtar Sözcükler: öğretmenler, etkililik, verimlilik, tanılama, üstün zekalı öğrenciler

Introduction

Many assessment tools and methods to be used together or separately are available for identification of gifted students such as development files, performance measurement, intelligence tests, achievement tests, aptitude tests, creativity tests, interviews, observations, and teacher rating scales. However, intelligence tests and teacher rating scales have been among the most commonly tools used for identification almost for the last century (Hunsaker, Finley, & Frank, 1997). When identification is evaluated as a process, the first stage begins with nomination (Sak, 2010). Nomination is such a measurement process made by individual cri-

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teria taking into account. Classroom teachers fulfill an important task in this process by observing the students in their classes and leading the possible gifted ones to the related centers for identifications according to their behavioral characteristics (Hunsaker, Finley, & Frank, 1997).

Teacher rating scales entered into the literature with the work of Jefferson (1787) and Goddard' (1928) for the first time (cit. Hunsaker, Finley, & Frank, 1997), and has been used widely in many countries of the world (McBride, 1992; Mönks & Pflüger, 2005). Gifted children have many characteristics that perceptibly differ from their peers (Çetinkaya 2013a). While such forms are being developed, the assumption stating that gifted individuals have different behavioral characteristics with their mental, physical, socio–emotional and personality characteristics in comparison with their normal peers (Çetinkaya, 2013b, 2013c; Şahin & Kargın, 2013).

One of the most important criticisms is that teachers may make a biased decision depending on such variables as the student's gender, ethnic identity in the nomination process (Elhoweris, Mutua, Alsheikh, & Halloway, 2005; Endepohls–Ulpe & Ruf, 2005; Rohrer, 1995; Guskin, Peng, & Simon, 1992; Schack & Starko, 1990; Siegle & Powell, 2005). It is even emphasized that some teachers may incorrect decisions relying on these tools (Baldwin, 1962; Pegnato, 1958, as cited in Gear, 1978). Despite the limitations mentioned, not use of teacher rating scales can cause the risk that the majority of the students resuming training in general education classes may remain the outside of scanning process, especially in such countries as Turkey where a nomination process is mostly carried out taking into account of teacher rating scale. In this case, identification of potential gifted students gets being up to coincidences (Scott, Perou, Urbano, Hogan, & Gold, 1992).

Efficiency and effectiveness of identification process are parallel with teacher qualifications (Hoge & Cudmore, 1986; Rohrer, 1995). The studies including classroom teachers (Akar, 2015; İnan, Bayındır, & Demir, 2009; Gökdere & Ayvacı, 2004; MEB EARGED, 2008; Şahin & Kargın, 2013; Şahin & Levent, 2015), teachers in different branches (Gökdere, 2004; Gökdere & Çepni, 2005; Gökdere, Küçük, & Çepni, 2003; Hemphill, 2009; Johnson, Vickers, & Price, 1995; Kıldan, 2011; Kontaş, 2009; Robinson, 1985) and preschool assistant preservice teachers (Şahin, 2013) indicate that teachers do not have enough knowledge about gifted students. On the other hand, it is emphasized that workshops/ in–service training activities increase teacher qualifications related to the identification of gifted students in the studies including teachers of gifted students (Graves & Thompson, 1961; Gökdere, 2004; Gökdere & Çepni, 2005; Gökdere, Küçük, & Çepni, 2003; Hansen & Feldhusen, 1994; Kontaş, 2009) and classroom teachers (Akar, 2015; Hemphill, 2009; Johnson, Vickers, & Price, 1995; Reis & Westberg, 1994; Robinson, 1985; Rohrer, 1995; Şahin, 2013; Şahin & Levent, 2015). It has been even found that the competence on the subject of the teachers having longer training is higher than the teachers having shorter training (Hansen & Feldhusen, 1994; Reis & Westberg, 1994; Robinson, 1985).

Effectiveness was efficiency of classroom teachers in identification process was examined in another group of study (Akar & Uluman, 2011; Alexander, 1953; Gagne, 1994; Gear, 1978; Mayfield, 1979). Follow–up research is needed for detecting the point of putting such educational activities as service training/ course/ seminar into practice. Follow–up research is important for determination of performance in practice of an applied educational activity. However, post–training follow–up research was made in a limited number of study. The effect of teacher qualifications on efficiency and effectiveness of the nomination process was investigated in one of these studies (Gear, 1978). From this point of view, it was decided to fulfill this study. The general aim of the study was to determine teacher competencies about identification of talented students. The following questions were investigated.

1. For the teachers who (are trained)/(received training) in treatment group, what is the level of:
    a. Efficiency in presenting possible gifted students as candidate?
    b. Effectiveness in selecting students who are identified as gifted?
2. For the teachers not trained in non-treatment group, what level of:
    a. Is their efficiency in nominating possible gifted students?
    b. Is their effectiveness in selecting the students who are identified as gifted?
3. Is there any significant difference between effectiveness and efficiency of experimental and control group teachers?

Method

Static group comparison or nonequivalent control group design was used in this study. There are experimental and control groups in this design. While teachers who were chosen to experimental group received education about nominating gifted children, others did not (Sönmez & Alacapınar, 2011). Study schools were selected by convenience sampling criteria.

Participants

The study group of the research consists of the teachers working at two different private school of the same company. Study has performed based on voluntariness. As a result of analysis, it is derived that from different schools certain two teachers who's a bunch of socio-demographic and occupational attributes are similar. However, workload of teachers does not make possible to create common an education program, which unifies both teachers. For this reason, it is decided that teachers in a school are appointed as control group, whereas others as experimental via considering randomness principle.

In the study (group), teachers who want to receive education about identification of gifted students were described as experimental group, and other one as control group. It was planned to conduct the study with a total of 27 teachers, 14 in the experimental group and 13 in the control group. However, two of the teachers in the experimental group withdrew for personal reasons from the research in the stage of the implementation of intelligence test. The study was continued with 25 teachers, 12 from the experimental group and 13 from the con-

trol group. The information on the socio–demographic and professional lives of the teachers in the study group was examined. Total working time of the participants in the experimental group (5 female and 7 male), 4 of them have studied as teachers for 0 to 5 year (33.33%), 6 of them for 6 to 10 year (50.00%), and 2 of them for 11 to 15 year (16.67%). Control group (6 female and 7 male), also, 3 of them have studied as teachers for 0 to 5 year (23.08%), 5 of them for 6 to 10 year (38.46%), 2 of them for 11 to 15 year (15.38%), and 3 of them for 16 year and more. All of the participants in the experimental and control groups were bachelor grade.

The teachers in the experimental group nominated a total of 268 (51.00%) students while the teachers in the control group nominated a total of 258 (49.00%) students. Teachers have evaluated students in their own class. Class ranges of evaluated students are through 2 and 4, and continue their education at least one year with their own teacher. Students who came in previous year to the school and ones nominated for Science and Art Center Exams were excluded from evaluation.

Students were subjected to an evaluation with a teacher–made achievement test prepared by the institution at the beginning of the period at the school in question. Students have the right to register to the institution in case of success. Therefore, it is expected that the students in the school are in normal or above normal intelligence level.

Procedures

The determination of the experimental and control groups, the creation of lists of students to be assessed, training of the experimental group, the nomination of students, implementation of an intelligence test to all of the students enrolled in the study reporting of results were respectively followed up.

In experimental group, teachers have received training 3-3.5 hours every day, then completed total of 10 hours in one week. The educational program, which is used in the study, was developed by Şahin (2012) and is used for raising teachers' knowledge about gifted students. The program was developed by Taba model, and includes following topics; giftedness and factors affecting giftedness, traits of gifted students, and measurement tool that can be used in identification of gifted students. Theoretical knowledge in the program was simulated by watching a film called –Little Man Tate– in classroom environment.

Data collection tools

The Scale for Rating the Behavioral Characteristics of Gifted and Talented Students-General mental abilities (*SRBCGTS–GMA):* A 5 point's likert-type measurement tool was developed in doctoral thesis by Şahin (2012) to be used in nomination processes of gifted students. Construct validity of the instrument was determined by exploratory factor analysis, which implied 3 sub–factored structure (KMO value, .90, Barlett's Test of Sphericity, p>.05). Multidimensional theory and modals of giftedness and talent exemplified such a Munih Gifted-

ness Model or Gardner Multiple Intelligence was utilized in the scale development phase. Cronbach α internal consistency coefficient of original overall measurement tool is .86, Problem Solving is .92, Communication and Social Skills are .82, and General Mental Abilites is .71. In this study, teachers' performance in process of nomination is restricted because of general cognitive property because it is decided to use the instrument's third sub-dimension instead of whole instrument.

The SRBCGTS–GMA in quest consists of six items (in the Appendix). It is targeted to measure individual's cognitive skills related to individual learning, adaptation, attention span, and processing speed in this scale. It was prepared as a five–point Likert–type. The maximum score to be gained from the scale is 30 and the lowest score is 6. A student who got a score of 18 or more was considered as a candidate in the study.

Raven Standard Progressive Plus Matrices Test (RSPM+): was used as the standardized intelligence test. RSPM+ is an intelligence test measuring individuals' capacity of quick observation and reasoning. Making inferences, problem–solving, regular thinking and abstraction skills are evaluated thanks to figures contained in the test. It is regarded to be one of the best tests that measure general intelligence (Spearman's "*g*" factor). While calculating the scores obtained from the test, the individuals entering into the first 75 to 95% segment are considered as above normal, and the individuals in the 95 or above % –segment are considered as the gifted (Raven, Raven, & Court, 1998, 2000).

The reliability, validity, and pre-norms studies of the test in question for the age range used in this study was made by Çetinkaya (2007) for the age group 6.50 to 8.00, by Tunalı (2007) for the age group 8.00 to 9.00 and Acar (2007) for the age group 10.00 to 11.00. The test–retest reliability and Cronbach's α coefficients of internal consistency were calculated for reliability analysis in the study. In these studies, Cronbach's α and test–retest were respectively identified to .81 and .98 for the age group 6.50 to 8.00 (Çetinkaya, 2007), .89 and .91 for the age group 8.00 to 9.00 (Tunalı, 2007), and .77 and .73 for the age group 10.00 to 11.00 (Acar, 2007).

Information form: A form was used to gather information about following; teachers' work life, socio-demographic traits, and students' gender and grade level.

Data Analysis

The research data were first analyzed descriptively. Percentage and frequency calculations were made in this context. Apart from this, the collected data from the teachers participating in the experimental and control groups were analyzed. The levels of efficiency and effectiveness of the teachers in the process of nomination in identification were examined in the analysis. In identification, efficiency is that how many of the potential gifted students nominated by the teachers are actually gifted. It has been formulated:

Efficiency= Number of gifted students identified by teacher/ Number of students nominated,

Effectiveness in identification is teacher's determination of the students whose being gifted is verified by teachers in a group. It has been formulated:

Effectiveness = Number of gifted students identified by teacher/ Number of students whose being gifted is verified (Gear, 1978).

Another analyzed question in the research is that whether effectiveness and efficiency of teachers who reached context related education and who did not, differentiate each other significantly. Since the requirement normality of subjects' number is not provided, when experiment and control groups are compared Man Whitney U test was used. In the case that results are significant, effect size was calculated ($d = z/\sqrt{n}$). Cohen (1988, as cited in Özsoy & Özsoy, 2013) suggested that the following general conventions could be considered when interpreting effect sizes, small effect size is ≤ .20, medium effect size ≅ .50, and large effect size ≥ .80.

Results

Firstly, percentage and frequencies of the students participating in the study according to nomination status, intelligence, gender, and grade level is described. Then, it was aimed to determine the level of effectiveness and efficiency in identification of the teachers maintaining training with the aforementioned students.

Table 1. The Distribution of the Students According to Nomination Status, Intelligence Level, Gender, and Grade Level.

		Teachers in the experimental group		Teachers in the control group		Total
		n^1	**%**	**n^2**	**%**	**n^3**
Nomination status	Nominated	73	27.20	78	30.20	151
	Not nominated	195	72.80	180	69.80	375
Intelligence level	Gifted	24	9.00	24	9.30	48
	Above normal	46	17.20	37	14.30	83
	Normal	198	73.90	197	76.40	395
Gender	Female	140	52.20	122	47.30	262
	Male	128	48.80	136	52.70	264
Grade level	2	119	44.40	44	17.10	163
	3	118	44.00	70	27.10	188
	4	31	11.60	144	55.80	175

n^1 =268, n^2 =258, and n^3 =526.

The teachers in the study group evaluated a total of 526 students volunteer for the study in their classes. 151 (28.70%) of the students participating in the study were nominated while 375 (71.29%) of them were not nominated. The distribution of the students by level of intelligence was determined that 48 (12.90%) of them were gifted, 83 (15.78%) of them were above normal, and 395 (75.10%) of them were normal. 262 (49.81%) of the students were female while 264 (%51.19) of them were male. The distribution of the students at grade level was al-

so identified as 163 (30.99%) of them in second grade, 188 (35.74%) of them in third grade and 175 (33.27%) of them in fourth grade. The age range of the students changes between 7.00–11.60.

Table 2. The Distribution of Nomination Status of the Students by Experimental and Control Group.

Teachers	Nomination status	Intelligence level	n	%
Experimental group	Nominated ones	Gifted	20	7.46
		Above normal	32	11.94
		Normal	21	7.84
		Total	73	27.24
	Not nominated ones	Gifted	4	1.49
		Above normal	14	5.22
		Normal	177	66.04
		Total	195	72.76
Total of the experimental group			**268**	**100.00**
Control groups	Nominated ones	Gifted	12	4.65
		Above normal	22	8.53
		Normal	44	17.05
		Total	78	30.23
	Not nominated ones	Gifted	12	4.65
		Above normal	15	5.81
		Normal	153	59.30
		Total	180	69.77
Total of the control group			**258**	**100.00**

The teachers evaluated a total of 268 students in the experimental group in the nomination process. 73 (27.24%) of these students in question were nominated as gifted. 20 (7.46%) of these students were identified as gifted while 32 (11.94%) as above normal, and 21 (7.84%) normal as the result of the intelligence test. The number of the students who were not nominated was 195 (72.76%). 4 (1.49%) of these students not nominated were found to be gifted while 14 (5.22%) to above normal, and 177 (66.04%) to normal.

The teachers evaluated a total of 258 students in the control group in the nomination process. A total of 78 students (30.23%) of these students were nominated as gifted. 12 (4.65%) of them were identified as gifted while 22 (8.53%) as above normal, and 44 (17.5%) normal as the result of the intelligence test. The number of the students who were not nominated was 180 (69.77%). 12 (4.65%) of these students not nominated were found to be gifted while 15 (5.81%) to above normal, and 153 (59.30%) to normal.

The levels of efficiency and effectiveness of the teachers of the experimental group in identifications gifted students: *Efficiency*= 20/73= .27, *Effectiveness*= 20/24= .83. Control group in identifications gifted students: *Efficiency*= 12/78= .15, *Effectiveness*= 12/24= .50.

Discussion, Conclusion and Limitation

In this study competencies of classroom teachers for nomination of gifted students were analyzed. The study was completed with 526 students and 25 teachers, as in experimental group 268 students and 12 teachers, in control group 258 students and 13 teachers.

The levels of efficiency of the teachers in the experimental and control groups are respectively .27 and .15 as the result of the analysis conducted. The levels of effectiveness have also been respectively determined as .83 and .50. Regarding these results, it can be said that the teachers trained on the identification of gifted students could correctly nominate one of four students. In addition, they could choose four of the five gifted students in their classes. The teachers not trained on the subject could correctly nominate one of seven students. Besides, they could recognize one of the two gifted students in their classes. The efficiency ratios of the teachers were found .27 in a study of Pegnato and Birch (1959, as cited in Gagne, 1994), .14 in a study of Akar and Uluman (2011), and .26 in a study of Alexander (1953). A limited number of research findings above indicate that teachers' efficiency ratios change between .14 and .27. According to these results, it can be said that the teachers trained could nominate the possible gifted students in their classrooms about two times more accurate than the teachers not trained.

The effectiveness ratios of the teachers were found .45 in a study of Pegnato and Birch (1959, as cited in Gagne, 1994), and .57 in a study of Alexander (1953). The effectiveness ratios of the teachers, trained on the gifted in culturally and economically disadvantaged groups, were found .85 while the effectiveness ratios of the teachers not nominated training on this subject were found .40 in a study of Gear (1978). The research findings in question indicate that the effectiveness ratios of the teachers change the range of .85 to .40. The study by Hoge and Cudmore (1986), compiling the ongoing researches within the context of students being nominated by teachers, is such as to explain the reason for this difference. It has been concluded that the possibility of being gifted of the students nominated by the teachers trained on the recognition of the gifted students has increased in this study.

Some parallel results with the research findings of Gear (1978) have been reached in this study. The teachers having knowledge on the subject can choose better the gifted students in their classes than their counterparts not having such knowledge. In other words, the teachers having training on the subject can choose eight of every ten students who have been verified to be gifted while the teachers not having training can choose five of every ten students. High efficiency in nomination process provides a healthier functioning for the next phase–in the individual assessment phase–. The status of low efficiency of the process creates a lot of unwanted results such as the formation of an unnecessary accumulation, the increase of testers' workload, and the rising of corporate costs.

Teacher will be able to choose all or nearly all of the potential of gifted students in the class in the case of high effectiveness. Considering that the identification process is the first phase of a featured educational application for the gifted, the primary condition of students' participation into educational environment in question is largely depended on teachers' nomination them correctly.

From this context, the recognition of student is a prerequisite of his/ her participation into the educational environments best overlapping with educational needs. Vice versa, student will continue his/ her education in a classroom consisting of some individuals in mixed–ability level if there is no abnormal intervention. Hence, the possibility of the following of the curriculum applied to the students in the range of normal intelligence will increase because teacher has not the awareness of his/ her being gifted. In this case, the applied curriculum will be far behind the student's level of intelligence and learning. Therefore, not only low success syndrome but also temporary or permanent mental laziness may arise on student (Sak, 2010: 138).

Table 3. Experimental and Control Group' Mann Whitney–U Results.

	Group	**n**	**Mean rank**	**Sum of ranks**	***U***	***p***
Efficiency	Experimental	12	16.75	201.00	33.00	.01*
	Control	13	9.54	124.00		
Effectiveness	Experimental	12	18.58	124.00	11.00	.00*
	Control	13	7.85	223.00		

*$p < .01$.

As seen in Table 3, when scores of efficiency and effectiveness are compared, significant difference was determined (U= 33.00, and 11.00 p< .05, d= .49, and .74). Besides difference scores, sum of ranks is taken into consideration, it is seen that this observed difference is prone to experimental group. Teachers in experiment group carried out their studies towards identification more effectively and more productively than in experimental one. It is seen that in–service education leads teachers to increase their knowledge level and knowledge transforms to behavior under appropriate conditions.

When the educational attainment of classroom teachers on gifted individuals in Turkey is analyzed, there are no lessons in the name/ theme of gifted talented/ intelligent children for graduation programs –in graduate level–. This subject becomes available at a unit–level within the scope of special education courses at several universities. Furthermore, any application has not been detected within the context of in–service training carried out by the Ministry of National Education, and planned and implemented on an annual basis for teachers working in public sector (MEB, 2015, 2014, 2013, 2012, 2011, 2010, 2009, 2008, 2007, 2006, 2005; MEB, 2004, 2003, & 2002, as cited in Gökdere, 004).Certification programs is also not arranged by any institution in question for teachers on duty. It appears that from teachers' levels of knowledge on gifted students are limited as a reflection of this situation in the studies on the topic (İnan, Bayındır, & Demir, 2009; Gökdere & Ayvacı, 2004; MEB EARGED, 2008; Şahin & Kargın, 2013; Şahin & Levent, 2015).

There are a bunch of limitations in this study. The first one of them is that any consensus has not been reached in the literature regarding what constitutes gifted intelligence or how many of the first percentage of society is gift, and about even the necessity of such a discussion. Common emphasis in the definitions of giftedness adopted by different researchers is that

the average has gifted talent/ intelligence. However, the researchers adopting different theories at different levels have defined above–average ability/intelligence. For instance, above–average ability/ intelligence is composed of the individuals in the first slice of a 1% according to Terman (Sak, 2008); in the first slice of a 10% according to Gagne (Gagne, 2005); and in the first slice of a 15–20% according to Renzulli (Renzulli, 2005). The consensus in question has not even been achieved in the intelligence tests developed by the different researchers adopting the same theory. For instance, the individuals in the slice of 5% are identifications with being gifted while the individuals in the first 2–3% are accepted as gifted according to Cattell or Wechsler Intelligence Scale for Children– Revised IV (WISC–R IV) during the assessment the results of RSPM+. Because RSPM+ was used as the measurement tool the ones in the first slice of 5% were accepted as gifted. Therefore, the teachers' effectiveness and efficacy analysis for the candidates who were determined as above normal (the first slice of 75–95%) were not made.

Another limitation of the study is that appear not match up with both of assessment instruments. RSPM+ which is a measurement tool contains figurative mathematical operations is used for measurement of general reasoning skills. Its pre-norm studies were carried out based only on the age range. As for that SRBCGTS-GMA is an instrument developed towards measurement of individuals' cognitive process like learning and adaptation, cognitive skills like reacts time and attention span, domain-specific word attack skills like reading activities and vocabulary and in view of the fact that class level. In a review study, individuals' processing speed skills -that is in SRBCGTS-GMA's item pool- are measured with reaction time and intelligence tests (with dimension of choice reaction time between -30 and -40; with dimension of inception time at a level of -30) (Neisser *et al*., 1996). Furthermore, attention span is one of basic skills that determine performance of scores of individuals' intelligence tests. It is stated that there is correlation of between learning, as a strong indicator of academic achievement, and intelligence at .50 level (Neisser *et al*., 1996). On the other hand, it can be said that RSPM+ scores and items related to subject matter (reading activities and vocabulary) are far from each other. This restriction paves the way to a new problem. In a future study, using both nomination scale and intelligence test that measure same domains can ensure more detailed information.

Besides, this study is limited to 25 teachers working at two different private schools and 526 students. The generalizability of research findings will increase with more subjects at the schools providing services within the public and private sector in different regions. There are a number of studies abroad on the bias to be encountered in the process of nomination. However, any culture–specific study has been not reached. Hence, a more comprehensive study, in which such variables as students' age, grade level, socio–economic status and gender are taken into consideration, is needed for the determination of the bias to be encountered in the process of nomination in Turkey.

The findings to be gathered from a study conducted on this subject will allow an opportunity for the achievement of the necessary scientific data on both a cross–cultural comparison to be made and on the precautions to be taken for preventing the biases that may arise in the process of identification. Besides, researchers showing interest to the topic may analyze teacher competencies about identification of gifted students at other areas like art, creativity, leadership and sports. As a result, the following suggestions can be made for increasing the effectiveness and efficiency of the process:

1. Gifted students/ course(s) should be included into the course curricula of faculties of education to increase the competences of prospective teachers on the subject. In–service trainings should be organized for teachers on duty.
2. National screenings should be systematically made for the detection of gifted individuals escaping teachers' notice in the nomination process at the beginning of each school year.
3. Nomination forms as well as such methods as file evaluation, peer nomination forms, self–assessment should be applied.

Note: Part of study is presented International Third International Conference on Talent Development & Excellence (2013) (Antalya), as an oral presentation.

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