Are teachers biased when nominating students for gifted services?  
Evidence from Kazakhstan

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The purpose of this experimental, vignette study was to analyze whether certain demographic characteristics of students (i.e. gender, ethnicity, and socioeconomic status) influence secondary education teachers in referring students for gifted services in Kazakhstan. A sample of 132 teachers were randomly assigned to one of eight profiles describing a typical gifted student with particular demographics and requested to indicate how strongly they believed the student should or should not be recommended for gifted services. Results evidenced that gender, ethnicity, and SES did not influence the Kazakhstani teachers’ referrals. The implications of teacher nominations in students’ identification for gifted programs and the discussion on the role of gifted education as perceived by school teachers in Kazakhstan and elsewhere are provided.

Keywords: gifted; teacher referral; gender; ethnicity; socioeconomic status; Kazakhstan

There is a general agreement on the need to use multiple criteria to identify gifted students (Baldwin, 2005; Erwin & Worrell, 2012; Hernández-Torrano, Prieto, Ferrándiz, Bermejo, & Sáinz, 2013). Among these criteria, teacher nominations are frequently used to create a screening pool of students to be further evaluated via IQ tests or other performance-based tests or as a formal part of the identification process. The inclusion of teachers’ nominations in the identification of gifted students is typically justified for several reasons. First, teachers are in a unique position to recognize students’ potential and competence in different areas throughout the curriculum, across time, and compared to other students of the same age. Second, teachers’ nominations have proven to be as good estimator as any other source of information for identification of gifted students (e.g. Gagné, 1994; McBee, 2006). Third, some studies have evidenced that teachers’ nominations supply additional information than that provided by performance-based tests regarding variables such as creativity, motivation, and leadership (Chan, 2000; Hunsaker, 1994; Pierce et al., 2007).

However, the role of teachers in the identification of gifted students has also been widely questioned. A major concern in this regard is that some psychological (e.g. intelligence, motivation, and achievement) and demographic characteristics of students might significantly influence teachers when nominating students to participate in gifted programs or to receive special services. Within the latter group,
gender, ethnicity, and socioeconomic status seem to exert a great influence on teachers (Bianco, Harris, Garrison-Wade, & Leech, 2011; Erwin & Worrell, 2012). The present study aimed to investigate the role of gender, ethnicity, and socioeconomic status in teachers’ nominations for gifted programs and schools in Kazakhstan. In the following pages, the authors critically review the literature on how these three demographic variables influence teachers’ referrals for gifted services and also provide the framework for establishing the relevance of the present study. Then, the methodology of the study is presented and the results of the study are reported. Finally, the authors discuss the findings and the implications of teachers’ nominations in students’ identification for gifted programs in Kazakhstan and elsewhere.

**Gender**

Overall, literature collectively suggest that female students are under-represented in gifted programs (e.g. Bianco et al., 2011; Crombie, Bouffard-Bouchard, & Schneider, 1992; Petersen, 2013). However, decades of research on the influence of student gender in teachers’ nominations of gifted children and adolescents produced contradictory findings.

On the one hand, there is empirical evidence that gender has a significant influence on teachers’ nominations of gifted children and adolescence. First, research illustrates that it is easier for teachers to imagine a gifted student being a boy than being a girl, and therefore, teachers typically recall a significantly lower number of girls when asked to talk about or describe a student that they had known or taught in the past (Endepohls-Ulpe & Ruf, 2005; Lee, 2002). Second, previous studies have found that teachers tend to nominate boys more often than girls for gifted programs and schools. For example, Bianco et al. (2011) explored the effect of secondary students’ gender on teachers’ referrals to gifted programs asking 28 teachers to nominate students for gifted programs based on two hypothetical student profiles: a Caucasian male student with gifted characteristics and Caucasian female student with gifted characteristics. Both profiles were identical, with the only difference being the gender of the student described. The results suggested that teachers were much less willing to refer a female student than an identically described male student. Third, several studies have provided evidence that teachers hold different beliefs about areas of excellence of students according to gender. Gagné (1993) found that teachers judged boys more talented in physical and technical skills, and girls more talented in arts (especially music) and socio-emotional skills. Similarly, Lee (2002) evidenced that Korean teachers believe that boys are innately more competent than girls in math and science, and girls in the arts and language. Hernández-Torrano et al. (2013) examined teachers’ conceptions of giftedness in Spain analyzing the demographic and psychological characteristics of a sample of secondary students nominated as gifted by their teachers. The results showed that teachers rated girls significantly higher in musical intelligence, bodily-kinesthetic intelligence, social intelligence, and interpersonal and intrapersonal skills, while nominated boys scored higher on numerical, spatial and mechanical reasoning.

On the other hand, several studies have challenged the gender influence in the identification of gifted students via teachers’ nominations. For example, Siegle and Reis (1995) investigated the role of gender in teachers’ perceptions of gifted students’ effort, quality of work, ability, and grades. The results indicated that although teachers consistently rated females higher than males on effort and the quality of
their work in mathematics, language arts, and science, (1) they did not assess differently boys and girls in their ability, and (2) no gender differences were found in the grades that teachers assigned to students on these content areas. Similarly, Crombie et al. (1992) examined girls’ and boys’ referral to and enrollment in gifted programs, and found that a greater number of boys were enrolled in gifted programs, but no gender differences were observed in referrals or in decisions to enroll. A recent meta-analysis conducted by Petersen (2013) explored the effect of students’ gender in the identification of gifted students and their participation in gifted programs. The results showed that boys were more likely than girls to be identified as gifted when IQ scores and standardized/achievement tests were used, but there was no gender difference in gifted students identified with teachers’ nominations.

**Ethnicity**

Students from linguistic, cultural, and ethnic minority groups are also underrepresented in gifted programs and schools (Briggs, Reis, & Sullivan, 2008; Erwin & Worrell, 2012; Ford & Grantham, 2003; Ford, Harris, Tyson, & Trotman, 2001; Frasier & Passow, 1994; McBee, 2006). The reasons for the underrepresentation of these students are manifold (see Erwin & Worrell, 2012; Ford, 1995, 1998). Interestingly, teachers and teacher nominations have been presented in the literature partly as a solution that would increase the number of minority students in these programs, partly as a cause that contributes to this problem.

In this regard, Moon and Brighton (2008) evidenced that teachers agree with the idea that talent potential is present in all racial, cultural, and ethnic groups and that giftedness can be manifested in several ways across different groups. In practice, however, teachers seem to have difficulty recognizing the attributes, characteristics, and talents of students from cultural, linguistic, and ethnic minority groups. Some studies have indicated that teachers tend to nominate more frequently the students who belong to the cultural, linguistic, and ethnic dominant group. For example, McBee (2006) analyzed nomination rates from different sources (i.e. automatic, teacher, parent, self, peer, and other) on the population of Georgia elementary school students in 2004 and provided evidence that, overall, Black and Hispanic students were much less likely to be nominated than Asian or White students. A closer examination of the results indicates that teachers contributed to the underrepresentation of certain ethnic minority groups, nominating 9.69% of Asian students, 5.83% of White students, 1.96% of Black students, and 1.36% of Hispanic students.

Literature consistently supports that teachers tend to define giftedness in terms of high intelligence, high cognitive thinking, high potential, and other factors related to the learning process such as good comprehension, working memory, and extensive vocabulary (e.g. Endepohls-Ulpe & Ruf, 2005; Kim, Shim, & Hull, 2009; Kornmann, Zettler, Kammerer, Gerjets, & Trautwein, 2015; Moon & Brighton, 2008). However, talent can manifest itself differently across cultures (Ford, 1992; Moon & Brighton, 2008; Speirs Neumeister, Adams, Pierce, Cassady, & Dixon, 2007; Siegle, 2001), and therefore students from the cultural, linguistic, and ethnic minority groups can be at a disadvantage. For example, a child who has an extensive vocabulary in his/her native language may have some difficulty in expressing him/herself in the language of school instruction, which might limit the likelihood of this student of being nominated for gifted services.
In a recent meta-analysis, Tenenbaum and Ruck (2007) examined differences in teachers’ expectations based on ethnic background of children in the USA. The results showed that teachers demonstrated more positive expectations for European American than for African-Americans (\(d = .25\)) and Latinos (\(d = .46\)). This study also showed that teachers were more likely to nominate European American students for gifted programs than students from other cultural minority groups such as African-Americans or Latinos (\(d = .92\)). Thus, teachers seem to have higher and more positive expectations for students who belong to the cultural, linguistic, or ethnic dominant group, which can further influence teacher nominations.

**Socioeconomic status**

There is a general assumption that students with low socioeconomic status are underrepresented and underserved in gifted and talented programs (e.g. Elhoweris, 2008; McBee, 2006). The contribution of teachers in the low representation of students with low socioeconomic background remains inconclusive.

On the one hand, de Wet and Gubbins (2011) examined teachers’ understanding of giftedness, the overwhelming majority of them (96%) agreed with the statement that “gifted students are found in all economic strata, cultural, and linguistic groups” (p. 102). Teachers admitted that culturally and linguistically minority students and students from economically disadvantaged backgrounds could be as gifted and competitive as any other students in the school population. Furthermore, over 90% of the respondents believed that the diverse students were able to succeed in gifted programs and that a similar range of abilities was to be found in all socioeconomic strata and ethnic groups (de Wet & Gubbins, 2011). Interestingly, concerning the performance assessment, teachers tended to rate economically disadvantaged students higher than their well-to-do peers who exhibited similar characteristics. However, when teachers were asked to nominate children for the gifted programs, they were more likely to select a middle- or upper-class student. This difference can be explained by the assumption that when teachers assessed their actual students they could be impressed with the achievements of the economically disadvantaged students. But when it came to a fictional student’s profile, the low socioeconomic status became an explicit factor in a student’s description underlying teachers’ prejudices (Siegle, Moore, Mann, & Wilson, 2010).

One the other hand, Moon and Brighton (2008) found that almost one third of primary school teachers disagreed with the statement that academically gifted people could be present in all the socioeconomic layers of the society. They justified their preference of middle- or upper-class students to be recommended for the gifted program, explaining that such children had more development opportunities, books at homes, travel experience, and stimulating environment. Similarly, McBee (2006) explored evident relationship between students’ socioeconomic background and teachers’ nominations for gifted programs. He found out that “students who did not receive financial assistance were more than three times more likely to be referred than students receiving free or reduced-price lunch” (McBee, 2006, p. 106). As a number of studies found, teachers could be much limited in their knowledge about gifted programs (Carman, 2011; Moon & Brighton, 2008). Speirs Neumeister et al. (2007) also pointed out that even teachers with years of experience of working with gifted students from economically disadvantaged backgrounds had a narrow perception of giftedness and difficulty in understanding how giftedness could be
manifested in economically disadvantaged children. Being specially trained for the gifted program, these teachers doubted that approximately one-third of their identified gifted students with low socioeconomic status were properly qualified for the gifted program, commenting on the lack of curiosity or motivation, slow or poor work habits, and deficit in skills of one content area (Speirs Neumeister et al., 2007, p. 488). This can be explained by the fact students of low socioeconomic status are underestimated and considered less confident, and therefore teachers expect less from such students (Elhoweris, 2008).

The present study
Despite the relatively large body of research in Western countries on teachers’ bias when nominating gifted students for special services, little is known about this topic in other regions of the world. The present study aimed to investigate the role of gender, ethnicity, and socioeconomic status in teachers’ referrals for gifted programs and schools in Kazakhstan. Kazakhstan has a long tradition in gifted education inherited from the Soviet educational system, where academic excellence and outstanding performance in competitions have traditionally been considered synonyms for giftedness. In recent years, Kazakhstan has launched an ambitious state program for education development that has greatly emphasized the role of gifted education as a key element for developing human capital and increasing competitiveness of education (see Yakavets, 2014). In this context, new schools for gifted students guided by the principles of academic freedom, excellence, talent development, and international standards in education have been created. Likewise, the education reform has granted more autonomy and independence to teachers to identify and educate these students through enriched curricular and extracurricular programs (Fimyar, Yakavets, & Bridges, 2014). In this regard, greater understanding of current school teachers’ conceptions and biases in the identification of gifted students could provide valuable information to design educational opportunities for talent development and overall school improvement in Kazakhstan. In particular, the analysis of the effect of student’s gender, ethnicity, and SES on the Kazakhstani teachers’ referral for gifted services may help to determine biases and misunderstandings teachers hold about giftedness and increase the number of ethnically, culturally, and economically diverse students in gifted programs and schools in Kazakhstan and elsewhere.

Methodology
Participants
The sample comprised 132 Kazakhstani secondary school teachers (116 females) teaching at five different schools in Almaty and Astana cities. Among them, 53 were teaching in a specialized school for gifted students and 79 at four different mainstream, non-gifted schools. The majority of the participants (70.5%) reported that they had 10 or more years of teaching experience. Of the 132 secondary school teachers, 62.6% reported never having participated in training activities related to gifted education, while 37.4% indicated they had participated in courses on provision for gifted students or received training to prepare students for national and international school Olympiads.
Methods and procedures

The researchers developed eight profiles of 200-word description of a student to measure whether student demographic variables (i.e. gender, ethnicity, and socioeconomic status) influence teachers in referring secondary school children for gifted programs and schools in Kazakhstan. The vignettes included features often indicated by teachers when they refer to gifted students according to the scientific literature (e.g. high intelligence, good memory, extensive vocabulary, etc.). The profiles were identical, except for the demographic characteristics that were different in each profile: gender (male, female), ethnicity (Kazakh, Russian, Uyghur1), and SES (low, average, high). For example, the first profile referred to a male, Kazakh, average SES student; the second profile referred to a female, Kazakh, average SES student; etc. (see vignette stem in Appendix 1).

An invitation letter was sent to the principals of 12 secondary schools in the regions of Almaty and Astana in Kazakhstan. Five school principals accepted the invitation and encouraged all teachers of the school to participate in the study based on their availability. In total, 132 teachers agreed to take part in this study. Written consent to participate in the study was obtained from all participant teachers. The names of the participants and the names of the schools were not collected or associated with the research findings in any way to protect participants’ identity and confidentiality of the data and to prevent socially desired responses.

Participants were then randomly assigned to one of the eight student profiles and asked to read the brief evocative description of the student given. After reading the description, participants were asked to indicate how strongly they believed the student described should or should not be recommended for a gifted program or school based on a four-point Likert scale (strongly disagree, disagree, agree, strongly agree), given that there were no right or wrong answers.

In addition to the information gathered from the vignettes, socio-demographic information was collected, including teachers’ gender, type of school, years of teaching experience, and previous participation in gifted education trainings. In all schools, teachers completed the questionnaire simultaneously in the same room. The procedure took place outside of teachers’ school hours at a time previously agreed with the school principal.

Data analysis

Descriptive analyses were used to preliminary analyze general trends on teacher nominations in our sample. Then, a series of factorial analysis of variance (ANOVA) were used to examine the effects of the type of school and three demographic characteristics of students (gender, ethnicity, and SES) on teacher nominations for gifted services. The assumptions of independent observations, homogeneity of variances, and normal distributions of the dependent variable for each group were checked and met.

Results

Overall, the majority of participants (92.4%) strongly agreed or agreed that the student described in the profile assigned to them should be recommended for a gifted program or school. Interestingly, teachers working in a gifted school ($M = 1.44$, SD
Role of student gender and school type

Descriptive statistics showed that the Kazakhstani teachers were more willing to nominate male students ($M = 1.43, SD = .75$) than identically described female students ($M = 1.14, SD = 1.15$). In order to analyze the main effects of two independent variables (school type, student gender) on teacher nominations, a 2 × 2 factorial ANOVA was used. School type included two levels (non-gifted, gifted) and gender consisted of two levels (male, female). The ANOVA revealed no significant main effect for school type ($F(1, 38) = 1.27, p = .26$) or student gender ($F(1, 38) = .80, p = .38$). In addition, no statistically significant interaction effect for school type and student gender was observed, $F(1, 38) = .009, p = .93$.

Role of student ethnicity and school type

Descriptive statistics showed that the Kazakhstani teachers were more willing to nominate Kazakh students ($M = 1.43, SD = 1.05$) than identically described Kazakh students ($M = 1.43, SD = .75$) and Russian students ($M = 1.43, SD = .75$). In order to analyze the main effects of two independent variables (school type, student ethnicity) on teacher nominations, a 2 × 3 factorial ANOVA was used. School type included two levels (non-gifted, gifted) and ethnicity consisted of three levels (Kazakh, Russian, Uyghur). The main effect for school type yielded an $F$ ratio of $F(1, 59) = 3.43, p = .06$, indicating a marginally significant difference between teachers working in a non-gifted ($M = 1.27, SD = .50$) school and teachers working in a gifted school ($M = 1.61, SD = .84$). In other words, teachers working in a gifted school were slightly more likely to strongly agree or agree with the nomination of the profile presented than the teachers working in a non-gifted school. However, no statistically significant interaction effect for school type and student ethnicity was found between the group means, $F(1, 59) = 1.27, p = .26$.

Table 1. Distribution of teachers' referrals for the total sample and broken out by type of school.

| Gender | Total (N = 132) | Non-gifted (n = 79) | Gifted (n = 53) |
|--------|----------------|---------------------|----------------|
| Male   | 50.4% M (SD)   | 44.3% M (SD)        | 46.2% M (SD)   |
| Female | 49.6% M (SD)   | 55.7% M (SD)        | 53.8% M (SD)   |

Table 2. Student gender and school-type effect on teachers' nominations for gifted services.

| Gender | Total sample (N = 132) | Non-gifted school (n = 79) | Gifted school (n = 53) |
|--------|------------------------|---------------------------|-----------------------|
| Male   | 59.6% Strongly agree   | 55.7% Strongly agree      | 53.8% Strongly agree  |
| Female | 40.4% Agree            | 44.3% Agree               | 46.2% Agree           |
|        | 3.8% Strongly disagree | 1.9% Strongly disagree    | 1.9% Strongly disagree |

Table 3. The Kazakhstani teachers were more willing to nominate Uyghur students ($M = 1.43, SD = 1.05$) than identically described Kazakh students ($M = 1.43, SD = .75$) and Russian students ($M = 1.43, SD = .75$) in Kazakhstan (see Table 3). A 2 × 3 factorial ANOVA was used to analyze the main effects of two independent variables (school type, student ethnicity) on teacher nominations. School type included two levels (non-gifted, gifted) and ethnicity consisted of three levels (Kazakh, Russian, Uyghur). The main effect for school type yielded an $F$ ratio of $F(1, 59) = 3.43, p = .06$, indicating a marginally significant difference between teachers working in a non-gifted school ($M = 1.27, SD = .50$) and teachers working in a gifted school ($M = 1.61, SD = .84$). In other words, teachers working in a gifted school were slightly more likely to strongly agree or agree with the nomination of the profile presented than the teachers working in a non-gifted school. However, no statistically significant interaction effect for school type and student ethnicity was found between the group means, $F(1, 59) = 1.27, p = .26$. 171
although a marginally significant main effect for school type was found, the effect size was small ($\eta^2 = .055$). The main effect for ethnicity yielded an $F$ ratio of $F(2, 59) = .57, p > .05$, indicating that the effect for ethnicity was not significant. The interaction effect was not significant, $F(2, 59) = .41, p > .05$.

**Role of student SES and school type**

Results showed that the Kazakhstani teachers were less willing to nominate low SES students ($M = 1.14, SD = 1.25$) than identically described average ($M = 1.43, SD = .75$) and high SES students ($M = 1.39, SD = .89$) (see Table 4). To examine the main effects of type of school (gifted, non-gifted), student SES (low, average, high), and the interaction between type of school and student SES on teacher nominations, a $2 \times 3$ factorial ANOVA was performed. The ANOVA revealed no significant main effect for school type [$F(1, 38) = 1.235, p > .05$] or student SES [$F(1, 38) = .801, p > .05$]. No statistically significant interaction effect for school type and student gender was observed, $F(1, 38) = .009, p > .05$.

In general, these results collectively suggest that student gender, ethnicity, and SES did not significantly influence secondary teachers’ referrals for gifted programs and schools in Kazakhstan.

**Discussion**

An overwhelming majority of participants expressed support for the referral of the student profile assigned to them, regardless of the individual characteristics embedded in the profile. Four plausible reasons may explain the high rate (92%) of teachers’ positive nominations in this study. First, teachers overwhelmingly recognized the cognitive and non-cognitive characteristics of giftedness embedded in the pro-

Table 3. Student ethnicity and school-type effect on teachers’ nominations for gifted services.

|          | Non-gifted |          | Gifted |          | Total Sample |
|----------|------------|----------|--------|----------|--------------|
| Ethnicity|            |          |        |          |              |
| Kazakh   | 13 1.31 (.85) | 8 1.63 (.52) | 21 1.43 (.75) |
| Russian  | 12 1.25 (.86) | 9 1.67 (.50) | 21 1.43 (.75) |
| Uyghur   | 12 1.25 (.86) | 11 1.55 (.49) | 23 1.39 (.72) |
| Total    | 37 1.27 (.84) | 28 1.61 (.50) | 65 1.42 (.97) |

Table 4. Student SES and school-type effect on teachers’ nominations for gifted services.

| SES      | Non-gifted | Gifted | Total sample |
|----------|------------|--------|--------------|
| Low      | 15 1.07 (1.16) | 7 1.29 (1.50) | 22 1.14 (1.25) |
| Average  | 13 1.31 (.86) | 8 1.63 (.52) | 21 1.43 (.75) |
| High     | 14 1.57 (.51) | 9 1.11 (1.27) | 23 1.39 (.89) |
| Total    | 42 1.31 (.90) | 24 1.33 (1.13) | 66 1.32 (.98) |

Note: SES = Socioeconomic Status.
files. In addition, teachers were aware that they were responding to simulated cases, and that their decisions did not involve real consequences for the students described. Therefore, it is not surprising that a large number of teachers would feel favorable to the nomination. Second, teachers in our study may have preferred to over-nominate students with a profile that typically describes a gifted student because they feared to misidentify students for special services, thereby depriving them of potentially beneficial learning opportunities, as has been suggested in other contexts (e.g. Siegle & Powell, 2004; Siegle, 2001). Third, studies collectively suggest that teachers are more able to identify talented students when they have sufficient time to observe children’s talents and are trained to recognize advanced development (Borland, 1978; Chan, 2000; Gagné, 1994; Siegle & Powell, 2004). In our study, a relatively high percentage of participants were teaching at a specialized school for gifted students, and a significant number of participants indicated having had specific training in gifted education. This idea is partially supported by the higher rate of nominations provided by the sample of teachers working in gifted schools in the total sample. Finally, the high rate of positive referrals could also be a consequence of the high number of female participants included in our sample, as there is empirical evidence that female teachers tend to nominate children for gifted programs more frequently than male teachers (e.g. Lee, 1999).

Impact of student gender in teachers’ nominations

The role of student gender in the nomination of teachers remains inconclusive. Some studies have evidenced that teachers tend to nominate boys more often than girls for gifted services (Bianco et al., 2011; Endepohls-Ulpe & Ruf, 2005; Lee, 1999), while others found no gender effect in this direction (Crombie et al., 1992; Petersen, 2013; Siegle & Reis, 1995). The results of this study seem to support the latter in the context of Kazakhstan. A plausible explanation for the lack of gender differences may underlie in the gender similarities hypothesis, which suggests that gender differences for most psychological variables are small or non-existent (Hyde, 2005). Thus, teachers in Kazakhstan might not perceive any cognitive or non-cognitive differences between male and female students in their daily practice, thereby equalizing the chances for both genders to be nominated for gifted programs and schools, as it has been evidenced elsewhere (e.g. Petersen, 2013).

Impact of student ethnicity in teachers’ nominations

Similarly, student ethnicity did not influence teachers’ referrals for special services in this study. This contradicts the previous studies, which collectively suggest that teachers tend to nominate more frequently students who belong to the cultural, linguistic, and ethnic dominant group (Ford, 1992; McBee, 2006; Moon & Brighton, 2008; Speirs Neumeister et al., 2007; Siegle, 2001; Tenenbaum & Ruck, 2007). Based on this premise, it was expected that teachers would nominate Kazakh ethnic and Russian ethnic students more often, as they represent the 63.1% and 23.7% of the population in Kazakhstan, respectively, while Uyghur group only represents 1.4% (OECD, 2014). A tenable explanation for this is the great exposure to diversity of the Kazakhstani teachers in their classrooms (OECD, 2014). Literature evidences that ongoing exposure to ethnic diversity increases cultural awareness and intercultural sensitivity in teachers (e.g. Youngs & Youngs, 2001). Therefore, teachers in
Kazakhstan may be well positioned to recognize the attributes, characteristics, and talents of culturally, linguistically, and ethnically diverse groups. Moreover, for the last 20 years the government of Kazakhstan has been promoting various initiatives to develop a national Kazakh identity while recognizing the multi-ethnic nature of the country and ensuring the peaceful coexistence between individuals and different ethnic, cultural, and religious groups, which may have increased the general educators’ knowledge of other ethnicities and cultures while reducing their biases and prejudices.

**Impact of student SES in teachers’ nominations**

Regarding socioeconomic status, the analysis showed no statistical differences between various SES of students in teachers’ nominations. Similarly to de Wet and Gubbins (2011), the majority of teachers illustrated by their referrals that all students should have an equal access to gifted services, contradicting several research studies in which teachers preferred to nominate well-to-do students for gifted programs (McBee, 2006; Moon & Brighton, 2008; Siegle et al., 2010). A possible explanation for this is that the issue of equality and collective type of thinking as a legacy of the Soviet education (e.g. King, 2012) can still be strong in the mentality of population.

Collectively, the absence of differences in teachers’ referrals for gender, ethnicity, and SES background could be potentially explained by historical and cultural reasons. Most teachers in our sample were educated during the Soviet Social Republic of Kazakhstan, one of the constituent republics of the Soviet Union for 55 years (1936–1991), where “racial and sexual equality was taught by verbal means and by the policy of complete equality with regard to the admission of members of racial minorities and girls in the school” (Soviet Society, p. 431; as cited in King, 2012). Thus, Kazakhstani teachers may tend to act as agents of equity, ensuring that all students have access to the similar educational opportunities, irrespectively of the type of school (non-gifted vs. gifted) and their gender, ethnicity, and SES background.

**Limitations, future research, and implications for educational practice**

Convenience sampling procedures used in this study to select participants limited the generalization of the results. Similarly, the location of the schools in this study is also a limitation. All participants were teaching at schools located in the two largest urban cities of the country. Due to the big differences between urban and rural settings in Kazakhstan, future researchers may want to replicate this study with participants from rural and semi-urban populations. Also, a large number of participants were female teachers and somewhat familiar with the field because they were teaching in schools for gifted students or participated in training activities related to gifted education in the past, which may have reduced the bias of the sample in their nominations. In addition, the high rate of nominations of the teachers demonstrated in this study can be problematic. The results of this study suggest that the introduction of teachers’ referrals for the identification of gifted students in Kazakhstan may produce a large number of false positives. Future researchers may address this issue by examining the psychological and demographic characteristics of gifted students nominated by their teachers in order to uncover the correspondence between teachers’ decisions and students’ real cognitive potential and performance, as has been explored elsewhere (e.g. Hernández-Torrano et al., 2013; Kornmann et al., 2015).
Conclusion
In general, the results of this study are encouraging as they suggest that the Kazakhstani students are similarly likely to be nominated for gifted services by their teachers, regardless of the type of school, their gender, ethnicity, and SES. Therefore, the promotion of teachers’ nominations as an informal procedure for the identification of gifted students in Kazakhstan may help reducing potential bias and discrimination produced by other identification procedures (e.g., academic achievement, scores in performance-based tests, and participation in school olympiads). This is particularly significant in contexts of educational reform where teachers are expected to exercise more independence and gradually earn more autonomy in their duties, including the identification and education of gifted students.

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Note
1. When analyzing the effect of student ethnicity on teachers’ nominations for gifted services, Kazakh ethnic and Russian ethnic groups were considered majority groups in this study, as they represent 63.1% and 23.7% of the population in Kazakhstan, respectively. Uyghur ethnic group was considered a minority group, as it represents 1.4% of the population.

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Appendix 1. Vignette Stem

[Name] is a [gender], [ethnic group] ethnic, seventh-grade student. His/Her family has [socioeconomic background] socioeconomic status. He/She demonstrates an unusual desire to learn. He/She is very curious and asks many questions in class, which sometimes annoys his/her teachers. He/She has many interests, particularly on issues related to nature and animals in danger of extinction. He/She can spend hours investigating on these topics if given the opportunity. He/She is a perfectionist and becomes frustrated if others do not meet his/her high levels of expectations. In addition, he/she is very sensitive to criticism and can get very angry when others point out his/her mistakes. He/She demonstrates excellent math skills and gets higher test scores in this subject than most of his/her classmates, although his/her teachers say he/she could do better if he/she tries harder. He/She enjoys reading about almost any subject and his/her vocabulary is very advanced. He/She has a very vivid imagination and enjoys writing stories that then shares with his/her classmates. He/She has many friends and is well accepted by his/her classmates, but he/she also enjoys doing things on his/her own.