Psychology in Russia: State of the Art
Volume 12, Issue 4, 2019

Russian Psychological Society
Lomonosov Moscow State University

Attitudes Towards Gifted Students and Their Education in the Slovenian Context

Mojca Juriševič[a,*], Urška Žerak[a]

[a]*University of Ljubljana, Faculty of Education, Ljubljana, Slovenia*

*Corresponding author. E-mail: mojca.jurisevic@pef.uni-lj.si

Background. Cultivation of positive attitudes towards gifted education is important to ensure that gifted students receive educational opportunities appropriate to their learning needs.

Objective. To examine the attitudes of students, parents, and teachers towards gifted education in the Slovenian upper secondary schools.

Design. A total of 1,020 students from four selective co-educational upper secondary schools (i.e., gymnasiums), their teachers ($n = 84$), and parents ($n = 306$) participated in the study. Respondents' attitudes were assessed using an adapted version of the Gagne and Nadeau attitude survey about gifted students and their education. In order to obtain a deeper insight into the context, an open question about gifted education was also posed.

Results. Participants generally hold neutral to positive attitudes towards gifted education. They expressed their awareness of gifted students' special academic needs and the meaningfulness of specific educational support. Furthermore, 68% of participating students emphasized the need for relatedness to their peers (i.e., not to stand out or be labelled), often neglected in provisions for the gifted. Comparative analysis showed that attitudes towards the extent of knowledge and experience in the field differed among the groups of participants.

Conclusion. Qualitative analysis complemented the quantitative findings by addressing "the principle of challenging" instead of "the principle of adding", suggesting that the focus should be primarily on adapting the curricula and, out of consideration for their social and emotional needs in adolescence, not on overloading gifted students.

Keywords:
attitudes, gifted education, gifted students, teachers, parents

ISSN 2074-6857 (Print) / ISSN 2307-2202 (Online)

http://psychologyinrussia.com

Introduction

Contemporary developmental models define giftedness as outstanding learning potential that will most likely realize itself, if students experience appropriate learning opportunities based on their abilities, interests, and needs at different developmental stages (Dai, 2016; *Gagne*, 2018; Kaufman & Sternberg, 2008; Renzulli & Reis, 2018; Sternberg & Davidson, 2005; Sternberg, Jarvin, & Grigorenko, 2011; Subotnik, Olszewski-Kubilius, & Worrell, 2011, 2018). Assuring quality provisions for the education of gifted students thus requires adaptation of content and methods of teaching and learning, as well as involvement of gifted students in various enrichment and extracurricular activities. In recent years, talent development has been presented as a conceptual model that emphasizes motivation and long-term specific educational programs, allowing as many individuals as possible to reach the highest levels of achievement in the field of their talent (Juriševič, 2017; McCoach & Kay, 2018; Subotnik et al., 2011; Subotnik & Rickoff, 2010).

General social attitudes towards gifted students influence policymakers who are responsible for gifted education. Rooted misconceptions and stereotypes about gifted students often inhibit further development of gifted programs and have a negative impact on funding of those programs. At this point, it makes sense to deal with the common false belief that gifted students will manage on their own; indeed, the label "gifted" or "talented" is not a synonym for superior performance, creative productivity, or exceptional achievement, absent effort and deliberate practice (Cross & Coleman, 2005; Cross, Coleman, & Stewart, 1993; Subotnik et al., 2011). Resistance to gifted programs persists due to the stereotypical belief that gifted students come from families with higher socio-economic status, implying that programs are inaccessible to gifted students from underprivileged cultural environments. This ambivalence is also promoted by a school culture that accepts giftedness only in certain areas (e.g., music and sports, see Colangelo & David, 2003; Winner, 1996) and by the prevailing stereotypes about academically talented students (Cross, 2005; Matheis, Kronborg, Schmitt, & Preckel, 2017; Matheis, Keller, Kronborg, Schmitt, & Preckel, 2019; Siegle & Reis, 1998). In many countries, however, there is a trend towards changing attitudes about gifted education, and awareness is rising of the importance of supporting gifted students for the progress of society at large (IEA, 2018). Steenbergen-Hu and Olszewski-Kubilius (2016) highlighted the importance of educational programs and activities for the gifted and talented in terms of talent development and motivation of highly capable individuals, who will take on roles as leading innovators, experts, creators, and leaders in the future.

Providing appropriate learning opportunities for gifted students requires a focus on teachers' knowledge, understanding, and attitudes towards gifted students (Swanson & Lord, 2013). Negative attitudes towards giftedness affect perceptions of gifted students and their education, and therefore influence teachers' behavior towards these students (Lassig, 2009). Teachers' attitudes do not affect only their teaching practices and approaches, but also have an indirect influence on the attitudes and behaviors of the students' peers and the stimulating classroom climate that ensures optimal development of talented students (Al-Makhalid, 2012; Cross, Cross, & O'Reilly, 2018; Lassig, 2009). Teachers' subjective theories, which might

result in misunderstanding the needs of gifted students, their education, and the implementation of provisions for the gifted and talented, are extremely important aspects that should be taken into account when forming guidelines for gifted education (Ozcan, 2016). Researchers have emphasized that gifted and talented students require competent teachers, who will provide appropriate incentives to fully realize their potentials (Ozcan, 2016; Perković Krijan, & Borić, 2015).

Teachers' attitudes have a crucial impact on their professional decisions and everyday behavior in the classroom (Everton, Galton, & Pell, 2002; Pajares, 1992). Knowledge about teachers' attitudes is therefore crucial for successful implementation of gifted education programs (Davids & Rimm, 2004; Lassig, 2009). In general, attitudes can be defined as relatively permanent cognitive or personality structures that represent predispositions for certain individual responses. They influence how individuals perceive and experience certain situations and how they direct their attention. Attitudes represent an integration of three aspects of basic mental functions: (a) a cognitive component that contains individual knowledge and information about a particular object, person, or situation; (b) an emotional component, comprising a positive or negative feeling and the evaluation of the object; and (c) a motivational component that includes individual behavioral intentions or actual behavior towards a certain object, person, or situation (Ajzen & Fishbein, 1977; Ule, 2009).

Although teachers' attitudes towards gifted students and their education have often been studied (Al-Makhalid, 2012; Begin & Gagne, 1994b; Cross, Cross, & Frazier, 2013; Cross et al., 2018; Jung, 2014; Lassig, 2009; Matheis et al., 2019; Perković & Borić, 2015), the results revealed mixed attitudes and inconclusive answers about gifted education. Cross et al. (2013) reported that teachers who taught in heterogeneous classes were less inclined to favor gifted education in comparison with teachers in specialized schools for gifted students. Other studies (Juriševič, 2012; Lassig, 2009; McCoach & Siegle, 2007; Troxclair, 2013, Watts, 2006) demonstrated that teachers in general hold positive attitudes towards recognizing and supporting the needs of gifted students. On the other hand, some studies found teachers' attitudes to be neutral (Perković Krijan, Jurčec, & Borić, 2014) or negative, specifically where acceleration for gifted students is concerned (Lassig, 2009; Troxclair, 2013). Regarding ability grouping, research results showed ambivalent (Lassig, 2009) and negative attitudes (Troxclair, 2013; Watts, 2006). Jung (2014) reported the following factors that predict positive attitudes towards programs and activities for gifted students among pre-service teachers: (a) low tolerance for the unequal distribution of power in society, which can be connected with meritocracy, and consequently with a focus on education; (b) frequent contact with gifted individuals, which both consciously and unconsciously influence the teacher's awareness of the specific needs of gifted students. Similarly, Begin & Gagne (1994b) identified frequent contact with gifted individuals as well as socio-economic status as factors that have a significant effect on cultivation of teachers' and parents' positive attitudes towards gifted students.

Researchers have examined the relationship between level of professional experience and attitudes towards gifted students. Some research revealed that more experienced teachers who have a wider range of professional experience and con-

sequently have more often worked with gifted students hold more positive attitudes (Begin & Gagne, 1994a; Jung, 2014), while other studies showed that young teachers hold more positive attitudes towards gifted students (Perković Krijan, & Borić, 2015). However, some researchers reported no significant differences between the teachers' age or years of teaching experience (Cramond & Martin, 1987; Lassig, 2009).

The Slovenian Context

Slovenia has a relatively long and rich history of providing special services in basic and secondary education for students with outstanding learning potentials. It starts with the identification of giftedness from Grade 4 of elementary school. In the past 20 years, gifted education has expanded greatly for basic and secondary education in four areas: (1) different forms of differentiation and/or accelerated learning; (2) promoting the development of different talents within the expanded curriculum and school enrichment activities; (3) additional extracurricular activities; and (4) scholarships. Since 2007, a more systematic approach in secondary education was established by the document "Identification and Work with Gifted Students".

Despite the diversity and professional interest, the above-described activities remain a professional responsibility of individuals or different institutions, uncoordinated and not appropriately monitored and evaluated. There is no national strategy that would regulate gifted education (Juriševič, 2012). The national analysis presented in the White Paper on Education in Slovenia revealed the specific characteristics of gifted education in the Slovenian context (Juriševič, 2011a). First, there is an uneven understanding of the concepts of giftedness, talent, and related constructs, as well as a lack of cooperation and partnerships between educational experts and institutions involved in the cultivation of students' exceptional learning potentials. Second, different stakeholders report a bureaucratization of work with gifted students, brain drain, and a high percentage of identified gifted students (i.e., approx. 25% of gifted students identified in Slovenian school; Juriševič, 2012). Third, there is non-uniformity in understanding the goals of gifted education. Fourth, teachers and other professional staff in educational institutions are not sufficiently competent to identify and work with gifted students. Fifth, the work of teacher mentors is not regulated. Furthermore, there are disputes over financing of various initiatives and activities in the field of working with gifted and talented students, including the system of scholarships. Finally, there is an absence of analyses and evaluations, along with weak research activity. Manifestations of the aforementioned characteristics and issues are extensive, from an unregulated education system for teachers and mentors, to persisting negative stereotypes about gifted students and their education.

The main aim of this study was to explore the attitudes of students, teachers, and parents towards gifted students and their education. Second, we sought to obtain deeper insight into the context of gifted education by investigating the perceptions and opinions of participants in the gifted education context about giftedness and gifted education. A basic premise of this research was that it is extremely important to clearly understand the characteristics of the particular educational context in order to plan appropriate provisions for the gifted.

Method

Participants

The convenience sample included 1020 students from four coeducational upper secondary schools (i.e., gymnasiums) This type of schools is oriented towards attaining the knowledge and skills needed to continue the students' education at the university level; therefore, most of students, participating in the study were identified as gifted in the primary or upper secondary school (80.8%). Of all the students, 59.9% were female and 40.1% were male; their age ranged from 15 to 19 years ($M = 17.16$, $SD = 1.11$). The students' teachers ($n = 84$) and parents ($n = 306$) were also participants. Teachers' ages ranged from 24 to 65 years ($M = 46.94$, $SD = 10.45$), 23.4% were male and 72.6% female. Their teaching experience ranged from 3 months to 39 years ($M = 21.86$, $SD = 9.98$) and the amount of time spent working with gifted students ranged from zero to 37 years ($M = 12.95$, $SD = 10.38$). The parents' age ranged from 31 to 76 years ($M = 47.38$, $SD = 5.17$), 21.1% were male and 78.8% female. Participation in the study was voluntary. Prior to participation, the aims of the study were presented to the participants and the protection of personal data was ensured, emphasizing the significance of honest answers.

Materials

The *Attitudes towards Gifted Students and Their Education Questionnaire* was constructed for the purpose of this research, using the Slovenian translation (Juriševič, 2012) of the *Opinions about the Gifted and Their Education Questionnaire* (Gagne & Nadeau, 1991). We selected the most representative items from the Slovenian version of the original questionnaire (19 items) and added 8 items related specifically to upper secondary students. The questionnaire comprised 27 items with a 5-point Likert-type scale response format (1 = strongly disagree, 5 = strongly agree). It contained five subscales: *Understanding the concept of giftedness* (e.g., Giftedness is rare and needs to be promoted), *Perceptions of giftedness* (e.g., Gifted students are hard-working and obedient), *Social justice/inclusion* (e.g., For the future of our society, it is beneficial that a country devote additional funds for gifted education), *Appropriate support and differentiation* (e.g., Our school should offer additional activities for gifted students), and *Teachers' behavior towards gifted students* (e.g., Most teachers do not have time to devote special attention to gifted students). Juriševič (2012) established the adequate reliability of the Slovenian version of the entire 60-item Gagne & Nadeau questionnaire: $\alpha = .80$. The reliability coefficient of the full scale in the present version of the questionnaire is lower, but still in the acceptable range ($\alpha = .60$; see Steiner, 2003).

In addition to the items, an open-ended question about self-perceptions and opinions about giftedness and gifted education was added.

Data Collection and Analysis

The data was collected in the school year 2017–18, specifically in May and June 2018. During a four-week period, all the participants filled out the questionnaire in a paper-based form. The questionnaire was administered with the assistance of school counsellors from each school involved. Data was analyzed with the statisti-

cal program IBM SPSS Statistics 20 (IBM Corporation, 2016). Before the analysis was carried out, the distribution of variables was examined. Because there were no significant deviations from normal distributions, parametric statistics were used for further analysis. Qualitative responses were analyzed using comparative content analysis to distinguish the essential generic and representative themes (Mertens, 2010; Vogrinc, 2008).

Results

The results are presented in three sections: (a) general attitudes of participants; (b) differences in attitudes among students, teachers, and parents; and (c) qualitative analysis of respondents' self-perceptions about giftedness and gifted education.

General Attitudes towards Gifted Students and Their Education

Gagne's (1991) recommendation for the interpretation of results was used to determine the attitudes towards gifted student and their education. The arithmetic means were interpreted using the following guidelines: a score above 4.00 indicates a very positive attitude and below 2.00 a very negative attitude; means between 2.75 and 3.25 imply a neutral attitude; means above 2.00 and below 2.75 indicate a negative attitude, and means above 3.25 and below 4.00 imply a positive attitude. The descriptive statistics show that participants in general hold a neutral attitude towards gifted education ($M = 2.81$, $SD = .32$). *Table 1* presents the descriptive statistics for each item in the questionnaire.

Table 1

Descriptive statistics

Item	*N*	*M*	*SD*	Skewness	Kurtosis
1. Gifted students do not have to learn anything to achieve high grades.	1402	2.07	1.16	.79	–.64
2. Giftedness is rare and should be promoted.	1399	3.64	1.10	–.60	–.48
3. Gifted students have many privileges at school.	1403	2.36	1.18	.55	–.73
4. Our schools should offer additional activities for gifted students.	1400	3.63	1.14	–.56	–.54
5. Teachers do not treat gifted and other students any differently.	1400	3.17	1.28	–.11	–1.13
6. Gifted students are hardworking and obedient.	1403	2.43	1.13	.39	–.87
7. You are born gifted; you cannot become gifted.	1401	2.84	1.36	0.14	–1.24
8. Since we invest supplementary funds for students with difficulties, we should do the same for gifted students.	1406	3.82	1.15	–.79	–.27
9. Gifted students can fully develop their talents by adapted teaching.	1407	3.75	1.02	–.75	.001

Item	*N*	*M*	*SD*	Skewness	Kurtosis
10. Teachers generally prefer to teach gifted students than students with learning difficulties.	1402	3.58	1.16	–.59	–.48
11. Gifted students are popular in the classroom.	1401	2.75	1.06	.11	–.60
12. Everyone could be gifted, if they use all of the incentives from the environment.	1396	3.05	1.26	–.09	–1.11
13. By separating students into gifted and other groups, we increase the labelling of students as strong/weak, good/less good, etc.	1403	3.78	1.21	–.84	–.27
14. The same degree of special attention should be given to gifted students as to students with learning difficulties.	1401	3.69	1.21	–.63	–.71
15. Most teachers do not have time to devote special attention to gifted students.	1407	3.31	1.15	–.28	–.80
16. Gifted students might become vain or egoistic if they are given special attention.	1407	3.16	1.25	–.26	–1.03
17. To be gifted means to be something more than others.	1407	1.85	1.16	1.25	.47
18. For the future of our society, it is very beneficial that the country devote additional funds for gifted education.	1407	3.97	1.05	–.97	.39
19. It is better for gifted students that they have adapted regular classes, rather than skipping a grade.	1403	3.90	1.14	–.92	.05
20. Gifted students are nerds; they strive for high grades.	1391	1.95	1.08	.99	.13
21. Gifted students will be successful regardless of the educational program they are involved in.	1402	2.56	1.26	.38	–1.01
22. Special educational services for gifted students are a mark of privilege.	1400	2.64	1.19	0.26	–.86
23. More gifted students should have the possibility of skipping a grade.	1400	2.22	1.12	.67	–.31
24. Gifted students are often unsociable.	1398	2.30	1.12	.49	–.69
25. Parents bear the main responsibility for gifted students to develop their talents.	1397	2.91	1.16	–.03	–.99
26. When gifted students are put in special classes, other students feel devalued.	1405	3.36	1.15	–.39	–.71
27. Gifted students are often bored at school.	1405	3.21	1.16	–.20	–.80

Comparative Analysis

Comparative analysis showed that groups of participants (teachers, parents, and students) differed in their attitudes towards gifted students and their education. *Figures 1* and *2* present the highest values and differences among the groups. Teachers ($M = 4.02$; SD = 0.96) and parents ($M = 4.17$; $SD = 1.00$) are more inclined towards additional school-based activities for gifted students than students ($M = 3.43$; $SD = 1.14$). Analysis of variance showed significant differences ($F[2, 1397] = 58.59$, $p < .001$), $\eta^2 = .08$, which indicates a medium effect. Likewise, teachers ($M = 4.60$; $SD = 0.70$) and parents ($M = 4.30$; $SD = 1.03$) expressed more positive attitudes towards inclusive education, in terms of investing supplementary funds for education of gifted students, than students ($M = 4.30$; $SD = 1.03$). Analysis of variance showed significant differences ($F[2, 1403] = 68.58$, $p < .001$), $\eta^2 = .09$, which indicates a medium effect. Teachers' ($M = 4.37$; $SD = 0.81$) and parents' ($M = 4.19$; $SD = 1.04$) attitudes regarding the degree of special attention that should be paid to gifted students were more positive than students' attitudes ($M = 3.49$; $SD = 1.23$).

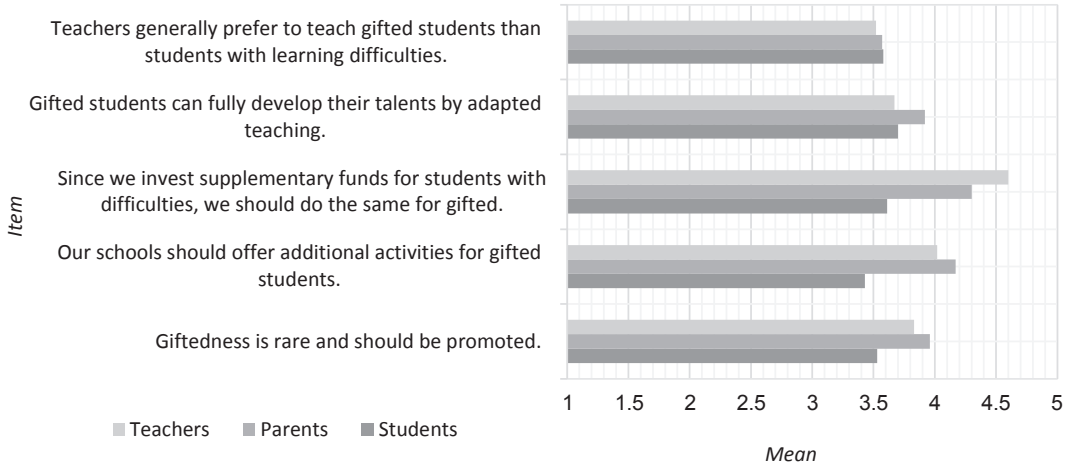

Figure 1. Differences among groups

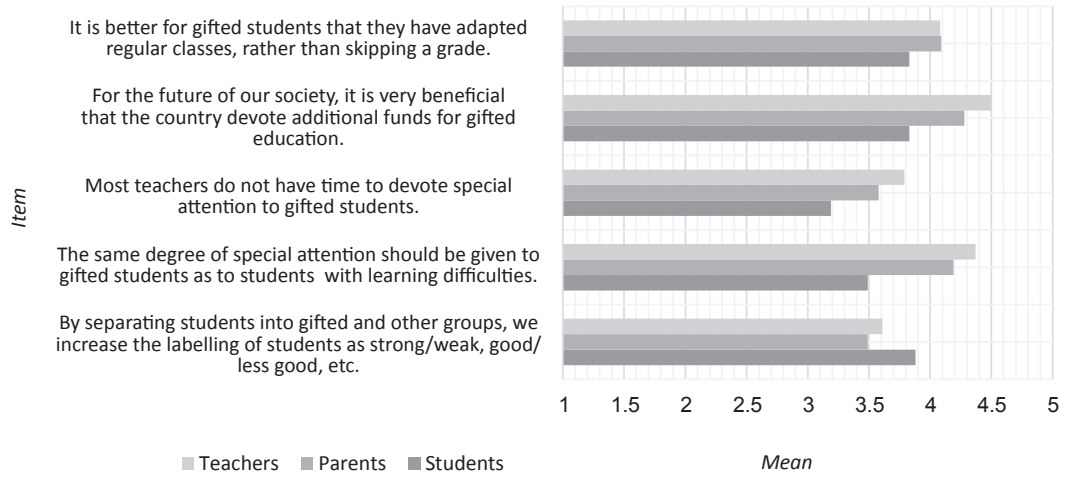

Figure 2. Differences among groups

Analysis of variance showed significant differences ($F[2, 1398] = 57.91$, $p < .001$), $\eta^2 = .08$, which indicates a medium effect.

Figure 3 presents the lowest values and differences among the groups. It is interesting that stereotypes about gifted students as being nerds and striving for high grades were rated higher among students ($M = 2.03$; $SD = 1.08$) in comparison to teachers ($M = 1.84$; $SD = 0.96$) and parents ($M = 1.74$; $SD = 1.08$). Analysis of variance showed significant differences ($F[2, 1388] = 8.90$, $p < .001$), $\eta^2 = .01$, which indicates a small effect. Likewise, a misconception that gifted students do not have to put in any effort to achieve high grades was rated higher in the group of students ($M = 2.13$; $SD = 1.36$) and teachers ($M = 2.11$; $SD = 1.19$) in comparison to parents ($M = 1.86$; $SD = 1.20$). Analysis of variance showed significant differences ($F[2, 1399] = 6.44$, $p = .002$), $\eta^2 = .01$, which indicates a small effect.

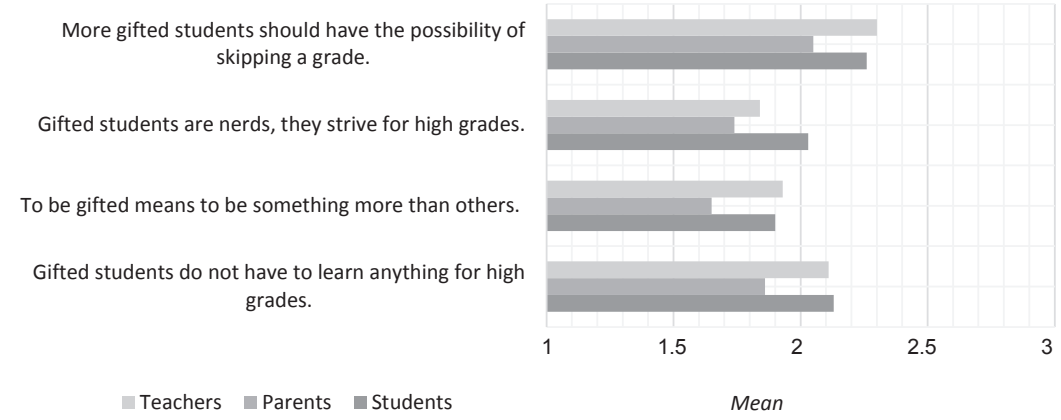

Figure 3. Differences among groups

Qualitative Analysis

Fifty-three percent of participants ($n = 668$) responded to the open-ended question asking for their opinions and perceptions about giftedness and gifted education. Based on content analysis of all answers, a set of 15 categories was developed (see *Table 2*). Many of the comments described the perceived need to provide appropriate support and incentives for gifted students (e.g., *"Gifted students deserve an adapted curriculum, just like students with learning difficulties, because regular lessons are too easy for them"*), problems with identification of giftedness (e.g., *"Being identified as gifted in practice means only that you complete a form twice a year"*), an equal approach for all students (e.g., "*Gifted education and working with gifted students should not be different from education of other students"*), unadjusted or inappropriate school system for gifted students (e.g., *"Gifted students do not have access to information on specific topics (e.g., quantum physics); they have to learn about them at home"*), and negative aspects of separating students into gifted and non-gifted (e.g., *"I think gifted students may be excluded from society if they are in a school where other students envy them and do not want to hang out with them because they are different"*).

Content analysis of parents' responses (Table 3) revealed that many comments fall into the same category as students' responses. The most common answers referred to the perceived need to provide appropriate support and incentives for gift-

ed students (e.g., *"I think that it is extremely important that we provide appropriate support for gifted students, because they contribute to the development of our country with their knowledge, innovations, and ideas")*, problems with identification of giftedness (e.g., *"I think that the identification of gifted students is too broad and in most cases confuses giftedness with diligence"*), and unadjusted or inappropriate school systems for gifted students (e.g., *"I think that gifted students are not sufficiently challenged; therefore, they cannot realize their potentials and are bored in school"*).

Table 2

Students on gifted education (n = 523)

Category	***f***	***f%***
Perceived need to provide appropriate support and incentives for gifted students	146	27.92
Problems with identification of giftedness	83	15.87
Equal approach for all students	68	13.00
Unadjusted or inappropriate school system for gifted students	52	9.94
Negative aspect of separating students on gifted and non-gifted	43	8.22
Insufficient or inadequate activities for promoting the development of gifted students	33	6.31
Giftedness as a privilege	25	4.78
Appropriate activities for gifted students at school	25	4.78
Enrichment activities for all students, not only gifted students	18	3.44
Characteristics of gifted students	18	3.44
Gifted students are responsible for development of their potentials	12	2.30

Table 3

Parents on gifted education (n = 104)

Category	***f***	***f%***
Perceived need to provide appropriate support and incentives for gifted students	27	25.96
Problems with identification of giftedness	24	23.08
Unadjusted or inappropriate school system for gifted students	14	13.46
Lack of information about the work with gifted students	9	8.65
Equal approach for all students	9	8.65
Insufficient or inadequate activities to promote the development of gifted students	8	7.69
Mentoring gifted students	7	6.73
Characteristics of gifted students	4	3.85
Appropriate activities for gifted students at school	2	1.93

Teachers' comments (Table 4) were mostly about obstacles in working with gifted students (e.g., *"Too many gifted students in the same class, a lot of bureaucracy, and problems with the organization of work"*), unadjusted or inappropriate school system for gifted students (e.g., "*There are no financial resources for working with gifted students and it would be appropriate to incorporate some of the contents for gifted into the lesson itself, instead of offering enrichment activities after regular lessons")*, and perceived need to provide appropriate support and incentives for gifted students (e.g., "*Our society and the school system should be doing more for gifted students*").

Table 4

Teachers on gifted education (n = 32)

Category	*f*	*f%*
Obstacles in working with gifted students	9	28.13
Unadjusted or inappropriate school system for gifted students	8	25.00
Perceived need to provide appropriate support and incentives for gifted students	3	9.38
Problems with identification of giftedness	3	9.38
Characteristics of gifted students	3	9.38
Insufficient or inadequate activities to promote the development of gifted students	2	6.25
Lack of information about how to work with gifted students	2	6.25
Equal approach for all students	1	3.13
Appropriate activities for gifted students at school	1	3.13

Discussion and Conclusions

General attitudes of society towards gifted students influence gifted education (Subotnik et al., 2011). Raising awareness about the importance of offering special inclusive support for gifted students is an important initiative in developing and changing the relationship of society towards gifted education (IEA, 2018). This study investigated the nature of students', teachers', and parents' attitudes towards gifted students and their education.

In general, students, parents, and teachers held neutral attitudes towards gifted students and their education. Building awareness about the special needs of gifted students and cultivating appropriate attitudes towards the gifted and their education is therefore the first step towards assuring quality provisions for the talent development of gifted students (Subotnik et al., 2011). Participants in the study recognized the needs, support, and social value of gifted students, but they lacked a clearly defined attitude towards special provisions for gifted students. Their understanding that gifted education provisions are cultivators of social capital (Renzulli, 2002) can, however, be implied from the results. Qualitative analysis revealed that schools in Slovenia provide a wide range of extracurricular activities for gifted

students, but give less attention to supporting the acceleration and adapting the curricula by differentiating learning content and teaching methods. Research has shown, however, that acceleration is very effective for gifted students (Assouline, Colangelo, & VanTassel-Baska, 2015). Moreover, research results have indicated that provisions for gifted students should be designed by "the principle of challenging" instead of "the principle of adding", focusing more on inclusive adapting of the curricula by differentiating learning content and teaching methods and not by overloading gifted students after regular classes, without consideration for their social and emotional needs in adolescence (Juriševič, 2012).

The results of this study further demonstrate that access to provisions for gifted students and implementation of special education activities is uneven across the country; therefore, not all students have an equal opportunity to receive appropriate educational provisions. This is due to lack of a systemic approach to gifted education in the Slovenian educational system — e.g., students from rural areas do not have opportunities equal to those of students who live in the capital city, where most research institutions are located. Teachers commented that financial resources for working with gifted students are lacking, and that they feel overwhelmed with bureaucracy. They further reported problems with the organization of activities for gifted students (e.g., time, resources). Without a national strategy for gifted education, teachers are unlikely to receive appropriate support, funds, and additional training to develop their knowledge about gifted students and establish differentiated curriculum materials and methods.

Teachers and parents significantly affect the development of gifted students (Lassig, 2009; Matheis et al., 2017; Subotnik et al., 2011). This assumption is consistent with Gagne's (2003) *Differentiated Model of Giftedness and Talent,* which emphasizes the role of significant people for the development of gifts into talents. Therefore, the role of teacher education programs is to inform pre-service teachers about giftedness and differentiated teaching methods for addressing gifted students' needs in inclusive education (Laine, Houtlainen, & Tirri, 2019). It is crucial that teachers develop appropriate teaching approaches in order to gain positive experiences with gifted education (Loboda, Bedek, Žerak, Juriševič, & Vogrinc, 2019). This will further contribute to the cultivation of positive attitudes towards gifted education.

Finally, findings from this study offer several practical implications as well. First, the results should persuade local and national authorities to develop a comprehensive strategy to support gifted education in schools as one type of inclusion (Borders, Woodley, & Moore, 2014; Juriševič, 2011b; Olszewski-Kubilius, Worrell, & Subotnik, 2018). Second, discussing results of this study among teachers, students, parents, and school leaders would be beneficial in terms of comparison of different opinions and experiences, and explaining evidence-based concepts, methodologies and tools on how to cultivate (gifted) students' learning potentials in school (Robinson, Shore, & Enersen, 2007). Third, pre-service and in-service teacher education need to embed topics in gifted education, since teachers, with their attitudes and expectations towards students, might have an important influence on gifted students' social and emotional development, as well as on the provision of quality learning experiences which could lead gifted students to academic outcomes in line with their abilities (IEA, 2018; Lassig, 2009; Loboda et al., 2019; Rimm, Siegle,

& Davis, 2018). Finally, the fourth implication relies on practicing psychologists in education (i.e., psychologists in education or school psychologists), who in the Slovenian educational system are employed at the counselling service inside schools (see Gregorčič Mrvar & Mažgon, 2017); many times they are designated for the school's coordination of gifted education. Based on the presented results, school psychologists can serve in different domains of gifted education: (a) explaining the concept of giftedness and characteristics of gifted students to students or classmates, parents, teachers, and other stakeholders involved in the school context; (b) performing identification procedures; (c) supporting gifted students, including with counselling and career orientation; (d) consulting and educating parents and professionals in education and beyond; (e) research in the domain of gifted education, including evaluation of programs for gifted students; (f) advocating for gifted students wherever needed and possible; and (g) challenging misconceptions and negative attitudes towards gifted students and their education (Brown, 1982; Cross, 1997; Jung & Worrell, 2017; Juriševič, Stritih, Fabjančič, & Gradišek, 2012; Robinson, 2002).

Limitations

The first limitation of the present study involves the convenience sampling used for this research, affecting the generalizability of the results. Nevertheless, the results are congruent with previous findings from the Slovenian gifted education context (Juriševič, 2012). The second limitation arises from the psychometric properties of a translated version of the measuring instrument, as we were not able to verify the structural validity of the measure. Caution is thus needed in the interpretation of the results (Scholtes, Terwee, & Poolman, 2011). In the future, the development of a reliable and valid measurement instrument for studying attitudes towards gifted students and their education would be beneficial. Without valid empirical evidence, neither psychological understanding of the status of inclusion of gifted students in the specific educational context nor intervention to promote it are professionally justified.

Acknowledgements

This research was supported by the Ministry of Education, Science and Sport of the Republic of Slovenia and the European Social Fund - Project Spodbujanje prožnih oblik učenja in podpora kakovostni karierni orientaciji za nadarjene PROGA 2017/20 [A Flexible Model of Quality Assurance in Gifted Education and Gifted Students' Career Development in Slovenian Upper Secondary Education PROGA 2017/20].

References

Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin, 84*(5), 888–918. https://doi.org/10.1037/0033-2909.84.5.888

Al-Makhalid, K. A. (2012). *Primary teachers' attitudes and knowledge regarding gifted pupils and their education in the Kingdom of Saudi Arabia* (doctoral dissertation). Manchester, UK: University of Manchester, School of Education.

Assouline, S. G., Colangelo, N., & VanTassel-Baska, J. (2015). *A nation empowered: Evidence trumps the excuses holding back America's brightest students* (Vol. 1). Iowa City, IA: Belin Blank Center for Talent Development.

Begin, J., & Gagne, F. (1994a). Predictors of attitudes toward gifted education: A review of the literature and a blueprint for future research. *Journal for the Education of the Gifted, 17*, 161–179. https://doi.org/10.1177/016235329401700206

Borders, C., Woodley, S., & Moore, E. (2014). Inclusion and giftedness. In J. P. Bakken, F. E. Obiakor, & A. F. Rotatori (Eds.), *Advances in special education, volume 26: Gifted education: Current perspectives and issues* (pp. 127–146). Bingley, UK: Emerald Group Publishing Limited. https://doi.org/10.1108/S0270-4013(2014)0000026006

Brown, P.P. (1982). The role of the school psychologist in gifted education. *Roeper Review, 4*(4), 28–29. https://doi.org/10.1080/02783198209552629

Colangelo, N., & Davis, G.A. (2003). Introduction and overview. In N. Colangelo, & G. A. Davis (Eds.), *Handbook of gifted education* (pp. 3–10). New York, NY: Springer.

Cramond, B., & Martin, C.E. (1987). Inservice and preservice teachers' attitudes toward the academically brilliant. *Gifted Child Quarterly, 31*, 15–19. https://doi.org/10.1177/001698628703100103

Cross, T.L. (1997). Psychological and social aspects of educating gifted students. *Peabody Journal of Education, 72* (3–4), 180–200. https://doi.org/10.1207/s15327930pje7203&4_11

Cross, T.L. (2005). Nerds and geeks: Society's evolving stereotypes of our students with gifts and talents. *Gifted Child Today, 28*(4), 26–28. https://doi.org/10.1177/107621750502800406

Cross, T.L., & Coleman, L.J. (2005). School-based conception of giftedness. In R. J. Sternberg & J. E. Davidson (Eds.), *Conceptions of giftedness* (2nd ed., pp. 52–63). Cambridge, UK: Cambridge University Press. https://doi.org/10.1017/CBO9780511610455.005

Cross, J.R., Cross, T.L., & Frazier, A.D. (2013). Student and teacher attitudes toward giftedness in a two-laboratory school environment: A case for conducting a needs assessment. *NALS Journal, 5*, 1–21. Retrieved from http://digitalcommons.ric.edu/nals/vol5/iss1/1

Cross, T.L., Cross, J.R., & O'Reilly, C. (2018). Attitudes about gifted education among Irish educators. *High Ability Studies,* 1–21. https://doi.org/10.1080/13598139.2018.1518775

Cross, T.L., Coleman, L.J., & Stewart, R.A. (1993). The social cognition of gifted adolescents: An exploration of the stigma of giftedness paradigm. *Roeper Review, 16*(1), 37–40. https://doi.org/10.1080/02783199309553532

Dai, D.Y. (2016). Envisioning a new century of gifted education: The case for a paradigm shift. In D. Ambrose & R. J. Sternberg (Eds.), *Giftedness and talent in the 21st century* (pp. 45–64). Rotterdam, The Netherlands: Sense Publishers. https://doi.org/10.1007/978-94-6300-503-6_3

Everton, T., Galton, M., & Pell, T. (2002). Educational research and the teacher. *Research Papers in Education, 17*(4), 373–401. https://doi.org/10.1080/0267152022000031388

Gagne, F. (2003). Transforming gifts into talents: The DMGT as a developmental theory. In N. Colangelo & G. A. Davis (Eds.), *Handbook of gifted education* (3nd ed., pp. 60–74). Boston, MA: Pearson Education.

Gagne, F. (2018). Academic talent development: Theory and best practices. In S.I. Pfeiffer, E. Shaunessy, & M. Foley-Nicpon (Eds.), *APA handbook of giftedness and talent* (pp. 163–184). Washington, DC: APA. https://doi.org/10.1037/0000038-011

Gagne, F., & Nadeau, L. (1991). *Opinions about the gifted and their education.* Unpublished manuscript. Montreal, CA: University of Quebec.

Gregorčič Mrvar, P., & Mažgon, J. (2017). The role of the school counsellor in school–community collaboration: The case of Slovenia. *International Journal of Cognitive Research in Science, Engineering and Education, 5*(1), 19–29. https://doi.org/10.5937/IJCRSEE1701019G

IBM Corporation (2016). IBM SPSS Statistics for Macintosh, Version 23.0. Armonk, NY, USA: IBM Corporation.

Jung, J.Y. (2014). Predictors of attitudes to gifted programs/provisions: Evidence from preservice educators. *Gifted Child Quarterly, 58*, 247–258. https://doi.org/10.1177/0016986214547636

Juriševič, M. (2011a). Gifted education. In J. Krek & M. Metljak (Eds.), *White paper on education in the Republic of Slovenia 2011* (pp. 329–367). Ljubljana, Slovenia: Zavod Republike Slovenije za šolstvo.

Juriševič, M. (2011b). Socialna vključenost nadarjenih učencev [Social inclusion of gifted students]. In B. Borota, M. Cotič, D. Hozjan, & L. Zenja (Eds.), *Social cohesion in education* (pp. 289–304). Horlivka, Ukraine: Horlivka State Pedagogical Institute for Foreign Languages.

Juriševič, M. (2012). *Nadarjeni učenci v slovenski šoli* [Gifted students in the Slovenian school]. Ljubljana, Slovenia: Univerza v Ljubljani, Pedagoška fakulteta.

Juriševič, M., Stritih, B., Fabjančič, N., & Gradišek, P. (2012). Pogled na delo z nadarjenimi v slovenskem šolskem prostoru s perspektive psihologov praktikov [Working with gifted students in the Slovenian school from the perspective of practicing psychologists.]. In M. Juriševič, & B. Stritih (Eds.), *Posvetovanje Vloga psihologa v vzgoji in izobraževanju nadarjenih, 27. 1. 2012, Ljubljana, Pedagoška fakulteta Univerze v Ljubljani*. 1. izd. (pp. 119–131). Ljubljana, Slovenia: Univerza v Ljubljani, Pedagoška fakulteta.

Juriševič, M. (2017). Motivating gifted students. In J. R. Cross, C. O'Reilly, & T. L. Cross (Eds.), *Providing for the special needs of students with gifts & talents* (pp. 235–266). Dublin, Ireland: CTYI Press.

Kaufman, S.B., & Sternberg, R.J. (2008). Conceptions of giftedness. In S. I. Pfeiffer (Ed.), *Handbook of giftedness in children: Psychoeducational theory, research and best practices* (pp. 71–92). New York, NY: Springer. https://doi.org/10.1007/978-0-387-74401-8_5

IEA (2018). *Public attitudes towards gifted education.* Pasadena, CA: Institute for Educational Advancement.

Lassig, C.J. (2009). Teachers' attitudes towards the gifted: The importance of professional development and school culture. *Australasian Journal of Gifted Education, 18*(2), 32–42.

Laine, S., Houtlainen, R., & Tiri, K. (2019). Finnish elementary school teachers' attitudes toward gifted education. *Roeper Review, 41*(2), 76–87. https://doi.org/10.1080/02783193.2019.1592794

Loboda, M., Bedek, N., Žerak, U., Juriševič, M., & Vogrinc, J. (2019). Stališča študentov pedagoških smeri do nadarjenih in njihovega izobraževanja [Attitudes of pre-service teachers towards gifted pupils and their education]. *Pedagoška obzorja*.

Matheis, S., Keller, L.K., Kronborg, L., Schmitt, M., & Preckel, F. (2019). Do stereotypes strike twice? Giftedness and gender stereotypes in pre-service teachers' beliefs about student characteristics in Australia. *Asia-Pacific Journal of Teacher Education,* 2–20. https://doi.org/10.1080/1359866X.2019.1576029

Matheis, S., Kronborg, L., Schmitt, M., & Preckel, F. (2017). Treat or challenge? Teacher beliefs about gifted students and their relationship to teacher motivation. *Gifted and Talented International, 32*(2), 134–160. https://doi.org/10.1080/15332276.2018.1537685

McCoach, D.B., & Flake, J.K. (2018). The role of motivation. In S. I. Pfeiffer, E. Shaunessy, & M. Foley-Nicpon (Eds.), *APA handbook of giftedness and talent* (pp. 201–214). Washington, DC: APA. https://doi.org/10.1037/0000038-013

Mertens, D.M. (2010). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative and mixed methods* (3nd ed., pp. 225–264). Los Angeles, CA: Sage.

McCoach, D. B., & Siegle, D. (2007). What predicts teachers' attitudes toward the gifted? *Gifted Child Quarterly, 5*(3), 246–255. https://doi.org/10.1177/0016986207302719

Olszewski-Kubilius, P., Worrell, F. C., & Subotnik, R. F. (2018). Addressing misconceptions about the talent development framework and implications for policy. In P. Olszewski-Kubilius, R. F., Subotnik, & F. C. Worrell (Eds.), *Talent development as a framework for gifted education: Implications for best practices and applications in schools* (pp. 299–306). Waco, TX: Prufrock Press.

Ozcan, D. (2016). Predictions and attitudes towards giftedness and gifted education. *International Journal of Educational Sciences, 15*(1–2), 126–133. https://doi.org/10.1080/09751122.2016.11890521

Pajares, F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research, 62*(3), 307–332. https://doi.org/10.3102/00346543062003307

Perkovič Krijan, I., Jurčec, L., & Borić, E. (2014). Primary school teachers' attitudes toward gifted students. *Croatian Journal of Education, 17*(3), 681–724. https://doi.org/10.15516/cje.v17i3.1199

Perković Krijan, I., & Borić, E. (2015). Teachers' attitudes towards gifted students and differences in attitudes regarding the years of teaching. *Croatian Journal of Education, 17*(1), 165–178. https://doi.org/10.15516/cje.v17i0.1490

Renzulli, J.S. (2002). Expanding the conception of giftedness to include co-cognitive traits and to promote social capital. *Phi Delta Kappan, 84*(1), 33–40, 57–58. https://doi.org/10.1177/003172170208400109

Renzulli, J.S., & Ries, S.M. (2018). The three-ring conception of giftedness: A developmental approach for promoting creative productivity in young people. In S. I. Pfeiffer, E. Shaunessy, & M. Foley-Nicpon (Eds), *APA handbook of giftedness and talent* (pp. 185–200). Washington, DC: APA. https://doi.org/10.1037/0000038-012

Rimm, S.B., Siegle, D.B., & Davis, G.A. (2018). *Education of the gifted and talented* (7th ed.). Boston, MA: Pearson.

Robinson, E. L. (2002). What is the school psychologist's role in gifted education? *Gifted Child Today*, 25(4), 34–37. https://doi.org/10.4219/gct-2002-78

Robinson, A., Shore, B.M., & Enersen, D.L. (2007). *Best practices in gifted education: An evidence-based guide*. Waco, TX: Prufrock Press. Retrieved from https://www.researchgate.net/publication/299202021_Best_practices_in_gifted_education_An_evidence-based_guide

Scholtes, V.A., Terwee, C.B., & Poolman, R.W. (2011). What makes a measurement instrument valid and reliable? *Injury, 42*, 236–240. https://doi.org/10.1016/j.injury.2010.11.042

Siegle, D., & Reis, S.M. (1998). Gender differences in teacher and student perceptions of gifted students' ability and effort. *Gifted Child Quarterly, 42*, 39–47. https://doi.org/10.1177/001698629804200105

Steenbergen-Hu, S., & Olszewski-Kubilius, P. (2016). Gifted identification and the role of gifted education: A commentary on evaluating the gifted program of an urban school district using a modified regression discontinuity design. *Journal of Advanced Academics. 27*(2), 99–108. https://doi.org/10.1177/1932202X16643836

Streiner, D.L. (2003). Starting at the beginning: An introduction to coefficient alpha and internal consistency. *Journal of Personality Assessment*, *80*(1), 99–103. https://doi.org/10.1207/S15327752JPA8001_18

Sternberg, R.J., & Davidson, J.E. (Eds.). (2005). *Conceptions of giftedness* (2nd ed.). New York, NY: Cambridge University Press. https://doi.org/10.1017/CBO9780511610455

Sternberg, R.J., Jarvin, L., & Grigorenko, E.L. (2011). Explorations in giftedness. New York, NY: Cambridge University Press.

Subotnik, R.F., Olszewski-Kubilius, P., & Worrell, F.C. (2011). Rethinking giftedness and gifted education: A proposed direction forward based on psychological science. *Psychological Science in the Public Interest*, *12*, 3–54. https://doi.org/10.1177/1529100611418056

Subotnik, R.F., Olszewski-Kubilius, P., & Worrell, F.C. (2018). Talent development as a most promising focus of giftedness and gifted education. In S. I. Pfeiffer, E. Shaunessy, & M. Foley-Nicpon (Eds), *APA handbook of giftedness and talent* (pp. 231–246). Washington, DC: APA. https://doi.org/10.1037/0000038-015

Subotnik, R.F., & Rickoff, R. (2010). Should eminence based on outstanding innovation be the goal of gifted education and talent development? Implications for policy and research. *Learning and Individual Differences*, *20*, 358–364. https://doi.org/10.1016/j.lindif.2009.12.005

Swanson, J.D., & Lord, E.W. (2013). Harnessing and guiding the power of policy: Examples from one state's experiences. *Journal for the Education of the Gifted, 36*, 198–219. https://doi.org/10.1177/0162353213480434

Troxclair, D.A. (2013). Preservice teacher attitudes toward giftedness. *Roeper Review, 35*, 58–64. https://doi.org/10.1080/02783193.2013.740603

Ule, M. (2009). *Socialna psihologija: analitični pristop k življenju v družbi* [Social psychology: An analytical approach to life in society]. Ljubljana, Slovenia: Univerza v Ljubljani, Fakulteta za družbene vede.

Vogrinc, J. (2008). *Kvalitativno raziskovanje na pedagoškem področju* [Qualitative research in the field of education]. Ljubljana, Slovenia: Univerza v Ljubljani, Pedagoška fakulteta.

Watts, G. (2006). Teacher attitudes to the acceleration of the gifted: A case study from New Zealand. *Gifted and Talented, 10*(1), 11–19.

Winner, E. (1996). *Gifted children: Myths and realities*. New York, NY: Basic Books.

Jung, J.Y., & Worrell, F.C. (2017). School psychological practice with gifted students. In M. Thielking & M. Terjesen (Eds.), *Handbook of Australian School Psychology* (575–593). Cham, Germany: Springer. https://doi.org/10.1007/978-3-319-45166-4_29

Original manuscript received August 29, 2019
Revised manuscript accepted November 10, 2019
First published online December 25, 2019

To cite this article: Juriševič, M., Žerak, U. (2019). Attitudes towards Gifted Students and Their Education in the Slovenian Context. *Psychology in Russia: State of the Art, 12*(4), 101–117. DOI: 10.11621/pir.2019.0406