

# Primary School Teachers' Attitudes toward Gifted Students

Ivana Perković Krijan<sup>1</sup>, Lana Jurčec<sup>2</sup> and Edita Borić<sup>1</sup>

<sup>1</sup>Faculty for Educational Sciences, Josip Juraj Strossmayer University of Osijek

<sup>2</sup>Faculty of Teacher Education, University of Zagreb

## Abstract

*The aim of this study was to examine primary school teachers' attitudes toward gifted students and toward some approaches to their education (acceleration and ability grouping) as well as their relationship to the expressed interest and perceived knowledge of specific topics concerning giftedness acquired during the studies, at teachers' professional conferences and in the course of individual professional improvement. Furthermore, the relationship between the teachers' attitudes and some of the teachers' socio-demographic characteristics were investigated. A total of 209 primary school teachers of the Brod-Posavina county participated in the study. The respondents' attitudes were assessed using the Gagné and Nadeau attitude survey (1991) about gifted students and gifted education (which was translated into Croatian and subjected to metric validation to meet the needs of this study). The results show that teachers generally have a neutral attitude toward the gifted, meaning that teachers recognize the needs, support and social value of the gifted, but lack a clearly defined attitude toward special provisions for the gifted and toward the consequences special support of the gifted might have. The study revealed differences in attitudes toward the gifted, interest and perceived knowledge of giftedness with regard to the years of teaching experience, education level and workplace. Hierarchical regression analyses proved interest and individual professional improvement, in topics concerning giftedness, to be significant predictors of attitudes toward the needs, support and value of the gifted. The opinion about elitism of gifted education is significantly predicted by the place of work and interest.*

**Key words:** attitudes; gifted education; gifted students; primary school teachers.

## Introduction

Gifted students express a wide range of characteristics and they do not always manifest the same traits. It often happens that, due to their unique abilities that are not always recognized and met adequately, they fail to achieve appropriate results in school. In classes they often experience teaching that is not adjusted to their needs, they meet too low intellectual demands, peers of other interests and teachers with ambivalent attitudes (Allodi & Rydelius, 2008).

Teachers play an important role in the development of the gifted and are an integral part of successful gifted education. A successful teacher has a broad and deep content knowledge, he/she applies appropriate teaching strategies, uses differing educational technology, is familiar with the students' characteristics, and uses all this knowledge in teaching (Hong, Greene, & Hartzell, 2011). The research confirms the importance of teachers' understanding of a student's cognitive, social and emotional needs, in order for gifted students to develop their potential. The fulfilment of cognitive needs includes the possibility to choose the contents in which a student shows interest, the exposure to new challenging topics on higher knowledge levels, and a teaching pace adapted to the student's abilities. The social and emotional needs of the gifted involve the teacher's understanding of the discrepancy between their intellectual and emotional development, the specific relationship toward peers and the perfectionism that is often inherent to them (McGinty McCord, 2010).

The issues mentioned above confirm that gifted students differ from the majority of students because of their unique set of features, which also conditions their special educational needs (Vizek Vidović, 2008), and teachers play a key role in the adaptation of the teaching process to their needs. Research shows that attitudes can determine how successfully the teacher will meet the needs of gifted students, so attitudes can thus directly influence their education (Al-Makhadid, 2012). Even though the influence of attitudes on a person's behaviour is not always consistent, generally speaking there is a connection between attitudes and the behaviour of individuals (Bohner & Wänke, 2002). That is precisely what makes attitudes an important object of study and research, because it signifies that teachers' attitudes toward the gifted influence their behaviour and their actions toward the gifted. But equally, teachers' attitudes toward the gifted exert influence on the development of other students' attitudes toward the gifted (Smith, 2005).

Attitudes reflect the values of the society in which they emerge. Some societies place emphasis on egalitarianism in education as opposed to elitism, others turn to intellectual achievements against athletic and artistic achievements, while some societies nurture the apprehension of giftedness as a congenital ability against the influence of the environment. Different social values influence teachers' attitudes toward the gifted and their practice (Čudina Obradović & Posavec, 2009). Based on the attitudes toward the gifted we can also draw conclusions about the values of a society. Attitudes are not always grounded on scientifically based facts, but often

emerge from prejudice and myths. Some of the most commonly held myths are: the gifted are a homogenous group (Reis & Renzulli, 2009), the gifted constitute 3% to 5% of the population (Borland, 2009), differentiation within regular education can replace special programmes and groups for the gifted (Hertberg-Davis, 2009), and so forth. Myths occur because the phenomenon they refer to is rather difficult to apprehend, moreover ambivalent conceptions and ambiguous evidence surround it (Kaplan, 2009). However, attitudes can equally form through the process of education, they can be based on facts gained through research and on the level of awareness of different concepts of giftedness (Troxclair, 2013), and this is precisely where we can act upon.

Acknowledging a certain connection between attitudes and an individual's behaviour, teachers' attitudes toward the gifted and toward different special provisions for the gifted have become the issue of numerous research in education. Yet, in spite of numerous studies, we still do not have a clear conception of teachers' attitudes toward the gifted (Al-Makhalid, 2012; Bégin & Gagné, 1994b; Čudina Obradović & Posavec, 2009; Donerlson, 2008; Geake & Gross, 2008; McCoach & Siegle, 2007; Troxclair, 2013; Watts, 2006). The differing research results derive from the use of different research methodologies, but also from the fact that the research studies were conducted in different cultures with different school systems, schools and gifted programmes, and with differences among the respondents themselves (Al-Makhalid, 2012).

There are several studies worldwide that used the instrument "Opinions About the Gifted and Their Education Questionnaire" (Gagné & Nadeau, 1991) to investigate attitudes toward the gifted, the same instrument that was used in this study. The results of the research conducted showed that teachers mostly have positive attitudes toward the gifted, especially toward recognizing the needs and support (Allodi & Rydelius, 2008; Chessman, 2010; Čaro, 2009; Drain, 2008; Lassig, 2009; Lewis & Milton, 2005; McCoach & Siegle, 2007; Troxclair, 2013; Watts, 2006). The attitudes toward acceleration are predominantly negative (Allodi & Rydelius, 2008; Chessman, 2010; Čaro, 2009; Drain, 2008; Lassig, 2009; Troxclair, 2013; Watts, 2006), while the attitudes toward ability grouping vary. Some studies showed the prevalence of neutral attitudes (Drain, 2008; Lassig, 2009), while others reported rather negative attitudes (Allodi & Rydelius, 2008; Chessman, 2010; Čaro, 2009; Troxclair, 2013; Watts, 2006). Since not a single one of the referred studies indicated positive attitudes toward acceleration and ability grouping, it can be concluded that teachers apparently do not consider these approaches to gifted education to be positive solutions for meeting the needs of the gifted (Chessman, 2010; McCoach & Siegle, 2007; Lassig, 2009; Troxclair, 2013; Watts, 2006). According to Troxclair (2013), such attitudes reflect the myths that prevail in the society due to insufficient knowledge of these approaches to gifted education.

A review of the research shows that the researchers sought to link numerous factors to attitudes toward the gifted in order to establish differences among the respondents. Analyzing a total of 35 studies, Bégin and Gagné (1994a) identified almost fifty different predictors of attitudes. Among the variables mentioned the respondents'

age, the number of years of teaching, the level of education and the perceived knowledge of giftedness were considered. Age and number of years of teaching are often connected to attitudes toward the gifted, and studies most often try to establish the differences between the attitudes of beginning teachers and experienced teachers (Posavec, 2008). However, the results of the research regarding age vary. Some studies showed younger teachers to have more positive attitudes (Tomlinson et al., 2004), while others attributed the more positive attitudes to older teachers (Posavec, 2008). Other than age and number of years of teaching, the teachers' level of education regarding giftedness is linked to the attitudes, i.e. studies investigate whether there is a connection between the knowledge and completed level of education and the positivity of attitudes. It would be logical to expect that teachers who are rather familiar with the characteristics of the gifted and with the advantages and difficulties of teaching the gifted have more understanding and more positive attitudes toward the gifted. This assumption is corroborated by studies that confirm the connection between more positive attitudes of teachers who received additional training in the field of giftedness than regular teachers (Al-Makhalid, 2012; Lassig, 2003; Megay-Nespoli, 2001). There is no possibility for additional specialist education in the field of gifted education at Croatian universities. Teachers can acquire the required knowledge in giftedness through their formal teacher education and training, and later through professional improvement in the course of their work and teaching experience. Several studies already indicate the teachers' need for additional education in this field (Pavin, Vizek Vidović, & Miljević Ridički, 2006; Pleić, 2010; Roeders, 2013; Vojnović, 2008). Beside the insufficient teacher education in this field, there are some other indicators that signify the absence of systematic regard and care for gifted students in Croatian schools. The fact, for example, that in the last 10 years only 25 students skipped a grade indicates inadequate use of the possibility to accelerate the curriculum. The deficient number of psychologists in primary schools points to the lack of adequate professional assistance that teachers would need in order to implement a timely identification and adaptation of the curriculum that would suit the needs of a gifted student. Vojnović (2008) demonstrates in her study that the identification of gifted students as a planned and systematic procedure is not conducted in any of the 53.1% of primary schools that the study covered.

In Croatia there is yet an insufficient amount of research that aims at investigating the teachers' attitudes toward gifted students and different educational provisions for the gifted, so our conclusions about the attitudes must be based on the studies conducted by Koren (1996) and Posavec (2008). Koren (1996) conducted research on a representative sample of 342 teachers using an instrument he named SNAD to explore attitudes toward giftedness, the school's role in identifying and providing for the gifted, and the role of the society in the development of gifted individuals. The results indicate positive attitudes toward an early identification of the gifted and toward organizing social support for the gifted. There are, however, larger discrepancies

among the teachers when considering statements that only gifted teachers can work with the gifted students, that some teachers inhibit the optimal development of the gifted and whether the gifted should be selected into special classes and schools. Posavec (2008) conducted research in the region of the Varaždin county using the same instrument as Koren (SNAD) on a sample of 241 teachers and obtained similar results – the respondents expressed exceptionally high levels of agreement with the early identification, the need for social care for the gifted regardless of their families' socio-economic status, the teachers' competency in recognizing the characteristics and needs of the gifted, and the significance of social care for gifted individuals. Most respondents partly agree or are indecisive about the selection of gifted students, so it can be concluded that they do not have a negative attitude toward this issue. The years of working experience, the pleasant experience of the work with the gifted, the preoccupation with the teaching career and satisfaction on the job are related to positive or ambivalent attitudes toward the gifted.

Even though it has often been applied worldwide, the Gagné and Nadeau (1991) questionnaire has, to the knowledge of the authoresses, not yet been used in Croatia. Hence the first aim of the study was to examine the reliability and factorial validity of the Croatian translation of the questionnaire. The second aim was to investigate the teachers' attitudes toward the gifted and the nature of the relationship between attitudes, some socio-demographic characteristics (number of years of teaching experience, completed level of education, workplace – rural/urban school) and the expressed interest and perceived knowledge of specific topics concerning giftedness. All of the above mentioned data point to the conditions in Croatian schools, which is why we base this study on two main hypotheses. Firstly, teachers do not have clearly defined positive or negative attitudes toward gifted students because there is no systematic support of the gifted in primary school teaching (hence no experience of systematic work). Secondly, teachers will have more positive attitudes toward the gifted, the higher their interest and perceived knowledge in the field of giftedness are. Taking into account the aforementioned studies, we expect to encounter differences between the teachers' attitudes with regard to the number of years of teaching and completed level of education, assuming to find more positive attitudes with younger teachers because in Croatia they have the higher level of education.

## **Methodology**

### **Participants and Method**

A total of 209 primary school teachers from 18 schools of the Brod-Posavina county participated in the present study (which is 50.48% of the total number of teachers in the county). Six urban and twelve rural schools (of a total of 12 urban and 21 rural schools in the county) were included in the study, out of which 34.4% of the participants work in the city, 24.9% in a rural central school and 40.7% in a rural branch school. Of the total number of respondents, 93.3% were female and 6.7% male.

The age ranged from 24 to 65, the mean age being 41.61 with a standard deviation of 12.36. The number of years of teaching experience ranged from 0 to 44 years with a mean of 17.04 years and a standard deviation of 12.35. As to their education, 44.5% of the respondents attended 2-year teacher training studies, 46.4% 4-year teacher training studies and 9.1% 5-year university teacher training studies. Only 3.6% of the sample stated that a student they considered gifted has been subjected to some form of identification process, i.e. testing to establish the level and type of giftedness.

As the research method the Gagné and Nadeau Attitude Scale was administered at several professional conferences of primary school teachers at the county level at the end of 2012 and beginning of 2013. Prior to the questioning, the respondents were introduced to the aim of the study and were guaranteed anonymity, emphasizing all the while the significance of honest answers. Approximately 15 minutes were needed to fill out the questionnaire.

### ***Instruments***

**1. General information about the respondents** referring to the variables: age, gender, number of years of teaching experience, level of education (2-year or 4-year teacher training studies, 5-year university teacher training studies, postgraduate studies), place of work (urban/rural), and whether a student they considered gifted was tested in any way.

### **2. Attitudes toward the gifted and their education**

For the present study the Gagné and Nadeau (1991) "Opinions About the Gifted and Their Education Questionnaire" was used to measure attitudes toward the gifted and gifted education. Since it had not been used in Croatia before, in the first phase the questionnaire was translated from English into the Croatian language. After that a native speaker of Croatian and an active speaker of the English language translated the Croatian translation into English. In the last phase we analyzed, statement by statement, the Croatian version we thus arrived at and the English original. The questionnaire consists of 34 items, and a 5-point Likert-type scale is assigned to every statement with the help of which the respondents express their level of agreement or disagreement with the statement (1 = strongly disagree, 5 = strongly agree). The statements were designed based on the examination of existing questionnaires of attitudes toward the gifted and by analyzing newspaper articles, as well as by conducting numerous interviews with teachers and parents (Bégin & Gagné, 1994a). This survey explores general attitudes, though some items express some of the familiar instructional provisions for the gifted, like acceleration and ability grouping.

According to Gagné and Nadeau (1991) the questionnaire contains six subscales. The first subscale, *Needs and Support*, assesses the attitudes toward the needs of the gifted and the need for special support. The second subscale, *Resistance to Objectives*, measures attitudes to the resistance of special provisions for gifted students. The third subscale, *Social Value*, refers to the attitudes toward the value of the gifted for the society. The fourth subscale, *Rejection*, measures the perception of the isolation of the

gifted in the society. The fifth subscale, *Ability Grouping*, investigates attitudes toward homogenous grouping of gifted students in schools. The final subscale, *Acceleration*, measures the respondents' attitudes toward school acceleration. High scores on the subscales *Needs and support*, *Social value*, *Ability grouping* and *Acceleration* indicate positive attitudes toward the gifted, while high scores on the subscales *Resistance* and *Rejection* indicate negative attitudes toward the gifted. The *Results* show the psychometric properties of the instrument and Table 1 shows the items from the questionnaire.

### **3. Interest and perceived knowledge (formal, non-formal and informal) of topics concerning giftedness**

The scale *interest* in topics concerning giftedness measures the estimate of the personal interest in five topics concerning giftedness: *General information about giftedness* (*what is giftedness, types of giftedness, talent, creativity*), *Characteristics of gifted students*, *Identification of gifted students*, *Special provisions for gifted students within regular classes*, *Acceleration*. The respondents were to estimate their personal level of interest for a certain topic on a scale from 1 to 5 (1-not at all interesting; 5-very interesting). The appeal of the topics has a Cronbach's alpha reliability coefficient of .85.

The *perceived knowledge* of giftedness measures the respondents' estimation to what extent the same five topics were covered in the course of formal (studies), non-formal (professional conferences) and informal (individual) professional improvement. The respondents were asked to estimate on a scale from 1 to 4 (1-not covered at all, 2-covered very little, 3-mostly covered, 4-totally covered) to what extent they got informed about the topics mentioned above in the course of their studies, professional conferences and individually. The coverage of topics concerning giftedness during the studies has a Cronbach's alpha of .88, .89 during professional improvement and .86 during individual professional improvement.

## **Results**

### ***The Structure of the Questionnaire "Opinions About the Gifted and Their Education Questionnaire"***

The reliability tests of the original six subscales using the Cronbach's alpha coefficient proved unsatisfactory. Except for the subscales *Needs and Support* ( $\alpha=0.73$ ) and *Ability Grouping* ( $\alpha=0.71$ ) the remaining four subscales did not show satisfactory internal consistency (*Social Value*  $\alpha=0.32$ ; *Rejection*  $\alpha=0.49$ ; *Acceleration*  $\alpha=0.52$ ; *Resistance to Objections*  $\alpha=0.64$ ). Accordingly, the validity of the questionnaire did not prove satisfactory. A total of 34 items were factor-analyzed using the principal components analysis with Varimax rotation. The analysis yielded 6 factors but several items had equal loadings on multiple factors, while some had factor loadings under .30. After the aforementioned nine items were discarded, a three-factor solution was forced ( $KMO=.739$ ; Bartlett's test of sphericity  $\chi^2=1355.198$  with  $p=.000$ ). The final solution included three factors accounting for 38.14% of the variance in the attitude toward

giftedness. The obtained factors comply with the Guttman-Kaiser criterion and the Cattell scree test.

Table 1 contains the items that were included in the analysis with a factor loading greater than .30 (the removed items are shown in the *Note* below Table 1). Even though two items on the third factor had loadings below .40, we decided to maintain them because their removal would significantly undermine the factor reliability as is the case with items with lower loadings on other factors. Negative signs of the factor loadings imply a negative orientation of the item and the necessity for reverse coding upon reliability assessment and determination of factor results.

Table 1

*Factor structure of the questionnaire "Opinions About the Gifted and Their Education" with the characteristic roots values and the percentages of explained variance after rotation*

Items	Components		
	1	2	3
F1: Ability grouping and acceleration	2. The best way to meet the needs of the gifted is to put them in special classes.	.713	
	6. When the gifted are put in special classes, the other children feel devalued.	-.696	
	20. Gifted children should be left in regular classes since they serve as an intellectual stimulant for the other children.	-.690	
	7. Most gifted children who skip a grade have difficulties in their social adjustment to a group of older students.	-.613	
	11. The gifted waste their time in regular classes.	.505	-.377
	29. When skipping a grade, gifted students miss important ideas. (They have holes in their knowledge.)	-.447	
	8. It is more damaging for a gifted child to waste time in class than to adapt to skipping a grade.	.400	
	Eigenvalue: 3.326	13.30% of total variance explained	
F2: Needs, support and social value	16. The specific educational needs of the gifted are too often ignored in our schools.	.704	
	32. The regular school programme stifles the intellectual curiosity of gifted children.	.653	
	9. Gifted children are often bored in school.	.621	
	31. Often, gifted children are rejected because people are envious of them.	.533	
	15. The gifted need special attention in order to fully develop their talents.	.525	
	13. Gifted persons are a valuable resource for our society.	.520	
	24. In order to progress, a society must develop the talents of gifted individuals to a maximum.	.453	
	14. Our schools are already adequate in meeting the needs of the gifted.		-.413
Eigenvalue: 3.207		12.83% of total variance explained	

	28. Gifted children might become vain or egotistical if they are given special attention.	.603
F3:Elitism	5. Special educational services for the gifted children are a mark of privilege.	.330 .571
	12. We have a greater moral responsibility to give special help to children with difficulties than to gifted children.	.563
	23. The gifted are already favoured in our schools.	.528
	26. Tax-payers should not have to pay for special education for the minority of children who are gifted.	.480
	4. Special programmes for gifted children have the drawback of creating elitism.	.326 .480
	30. Since we invest supplementary funds for children with difficulties, we should do the same for the gifted.	.309 -.413
	3. Children with difficulties have the most need of special education services.	.400
	27. Average children are the major resource of our society, so they should be the focus of our attention.	.391
	21. By separating students into gifted and other groups, we increase the labelling of children as strong-weak, good-less good, etc.	.304 .383
Eigenvalue:: 3.003		12.01% of total variance explained

\*Note: The original Gagné and Nadeau (1991) questionnaire contains six subscales: Except for the subscales *Needs and support* (items 1., 9., 11., 15., 16., 24., 30., 32.), *Ability grouping* (2., 6., 8., 20., 21.), *Social value* (13., 17., 25., 33.), *Rejection* (19., 22., 31.), *Acceleration* (10., 7., 29., 34.), *Resistance to objections* (3., 4., 5., 12., 14., 18., 23., 26., 27., 28.), the items that were removed from further analyses are: 1. Our schools should offer special education services for the gifted.; 10. Children who skip a grade are usually pressured to do so by their parents.; 17. I would very much like to be considered a gifted person.; 18. It is parents who have the major responsibility for helping gifted children develop their talents.; 19. A child who has been identified as gifted has more difficulty in making friends.; 22. Some teachers feel their authority threatened by gifted children.; 25. By offering special educational services to the gifted, we prepare the future members of a dominant class.; 33. The leaders of tomorrow's society will come mostly from the gifted of today.; 34. A greater number of gifted children should be allowed to skip a grade.

According to factorial and content validity, the first factor was labelled *Ability grouping and acceleration*, the second factor was labelled *Needs, support and social value of the gifted*, and the third *Elitism*. The first factor contains saturated items which were proposed in the Gagné and Nadeau (1991) original version as items of two subscales: *Ability grouping* and *Acceleration*. Hence this factor reflects the respondents' attitude toward different approaches in gifted education and higher scores on this factor indicate positive attitudes toward the gifted. It consists of seven items and the reliability coefficient has a Cronbach's alpha of .73. The second factor *Needs, support and social value of the gifted* describes special educational needs of the gifted, the need for adequate support and the value of the gifted for the advancement of the society. Higher scores on this factor indicate positive attitudes toward the gifted. It consists of eight items and has a Cronbach's alpha coefficient of .72. The third factor named *Elitism* contains saturated items that display the respondents' fear of generating a privileged status of the gifted when compared to other students. It contains ten items and, unlike the previous two, a higher score on this subscale indicates a rather negative attitude toward the gifted. The Cronbach's alpha reliability coefficient is .70.

There is a weak, but statistically significant correlation between the obtained factors of attitudes toward gifted students. Teachers with a positive attitude toward *Needs, support and social value* of the gifted at the same time express a rather positive attitude toward *Ability grouping and acceleration* ( $r=0.310$ ,  $\text{Sig.}<0.01$ ), and also express less concern about the risk of special provisions for the gifted creating *elitism (ability grouping/acceleration and elitism)* ( $r=-0.328$ ,  $\text{Sig.}<0.01$ ; *needs and elitism*  $r=-0.288$ ,  $\text{Sig.}<0.01$ ).

### **Attitudes toward the Gifted and Gifted Education**

To determine the attitude toward the gifted and their education we used Gagné's (1991) interpretation of the resulting scores. According to the arithmetic means of individual items, 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 reflect an ambivalent attitude, so means above 2.00 and below 2.75 indicate a negative attitude, while above 3.25 but below 4.00 indicate a positive attitude.

The results of descriptive statistics show an ambivalent attitude of the responding teachers toward homogenous grouping and acceleration of gifted students, a positive attitude toward needs, support and social value of the gifted, but the average score for elitism is barely neutral which suggests that teachers tend to have neutral to positive attitudes toward the gifted (Table 2). Generally speaking, we can say that the common attitude of teachers surveyed in this study toward gifted and gifted education is barely positive (general attitude  $M=3.29$ ,  $SD=.39$ ).

Table 2

*Descriptive statistics and Kolmogorov-Smirnov tests of distribution normality for the factors Attitude toward the gifted, interest in giftedness and perceived knowledge acquired during studies, professional conferences and individual professional improvement*

	N	Range	Min	Max	M	SD	K-S test	Sig.
Grouping and acceleration	204	1 - 5	1.43	4.71	2.94	0.60	1.166	0.132
Needs, support and social value	205	1 - 5	2.38	4.88	3.65	0.52	0.902	0.391
Elitism	198	1 - 5	1.50	4.00	2.76	0.48	0.970	0.303
Interest	181	1 - 5	2.40	5.00	4.15	0.65	1.014	0.255
Perceived knowledge acquired during studies	149	1 - 4	1.00	4.00	2.37	0.76	1.052	0.218
Perceived knowledge acquired at professional conferences	166	1 - 4	1.00	4.00	2.43	0.72	0.881	0.419
Perceived knowledge acquired during individual improvement	158	1 - 4	1.00	4.00	2.69	0.68	1.090	0.185

### ***Interest and Perceived Knowledge of Topics Concerning Giftedness***

The results show a rather keen interest of teachers in all five topics concerning giftedness (Table 2). Of the topics offered, the respondents take the greatest interest in *special provisions for gifted students within regular classes* ( $M=4.38$ ;  $SD=.80$ ) and *ways of identification of gifted students* ( $M=4.22$ ;  $SD = .78$ ), and the least in *acceleration* ( $M=3.92$ ;  $SD=.93$ ). According to the teachers' assessment, topics on giftedness were covered equally scarcely during studies and professional conferences ( $t=-1.335$ ;  $Sig.>.05$ ). Giftedness was dealt with significantly more in the course of individual professional improvement (studies and individually  $t=-4.451$ ,  $p<.05$ ; professional conferences and individually  $t=-6.847$ ,  $p<.01$ ). The topics covered the best during studies, professional conferences and individual professional improvement are *general information about giftedness* ( $M_{stud.}=2.67\pm 0.94$ ;  $M_{prof.conf.}=2.71\pm 0.82$ ;  $M_{ind.imp.}=2.99\pm 0.79$ ) and *characteristics of gifted students* ( $M_{stud.}=2.58\pm 0.94$ ;  $M_{prof.conf.}=2.59\pm 0.83$ ;  $M_{ind.imp.}=2.94\pm 0.79$ ). The topic least covered is *acceleration* ( $M_{stud.}=1.97\pm 0.93$ ;  $M_{prof.conf.}=1.97\pm 0.98$ ;  $M_{ind.imp.}=2.21\pm 1.03$ ).

### ***Attitudes toward the Gifted, Interest and Perceived Knowledge of Topics Concerning Giftedness in Relation to Some Socio-Demographic Characteristics of Teachers***

Given the aims of the study, it was to be enquired whether it is possible to ascertain statistically significant differences regarding some socio-demographic characteristics of teachers and the extent of their influence on the attitudes toward the gifted, interest and perceived knowledge of topics concerning giftedness. Since the Kolmogorov-Smirnov test (Table 2) showed that the scores examined do not deviate from the normal distribution, for the test on differences a two-way analysis of variance (Tables 3, 5 and 7) was used, except for the variable level of education for which a nonparametric analysis was used, that is the Kruskal Wallis H Test ( $\chi^2$ ; Tables 4, 6, 8) due to very different sample sizes. For the interpretation of the effect size in the parametric (partial eta squared) and nonparametric (r) tests of the significance of the differences Cohen's guidelines (1988; Pallant, 2010) were used.

According to the test results of the significance of differences (Tables 3 and 4) statistically significant differences could not be determined in the attitude toward acceleration and ability grouping, meaning that the respondent teachers show an approximately equal attitude toward ability grouping and acceleration regardless of their years of teaching experience, education level and/or place of work.

An analysis of variance (Table 3) determined a significant difference between the respondents' attitudes toward *needs, support and social value of the gifted* with regard to the number of years of teaching experience. The effect size of the number of years of teaching experience is moderate (part. eta<sup>2</sup> = 0.087), that is 9% of the variability in the attitude toward *needs, support and value of the gifted* can be explained with the years of teaching experience. Tukey's post hoc test confirmed teachers with the least work experience (0-4 years) to have a significantly higher positive attitude

Table 3

*Differences between factors of the attitude toward the gifted and gifted education according to years of teaching experience and respondents' place of work*

	years of teaching experience/ workplace	N	M	SD	F	Sig.
<i>Ability grouping and acceleration</i>	0-4 years	41	2.86	0.57		
	5-15 years	57	3.02	0.64		
	16-29 years	62	3.01	0.62	1.377	0.251
	30-44 years	40	2.80	0.56		
	urban	67	2.99	0.58		
	rural	133	2.91	0.62	1.118	0.292
	years x workplace	200			0.743	0.528
<i>Needs, support and social value of the gifted</i>	0-4 years	40	<b>3.90</b>	0.50		
	5-15 years	57	3.63	0.47		
	16-29 years	63	3.64	0.52	6.104	<b>0.001</b>
	30-44 years	41	<b>3.46</b>	0.53		
	urban	68	3.68	0.57		
	rural	133	3.63	0.49	0.005	0.946
	years x workplace	201			1.571	0.198
<i>Elitism</i>	0-4 years	39	2.82	0.46		
	5-15 years	55	2.70	0.47		
	16-29 years	62	2.72	0.52	1.725	0.163
	30-44 years	39	2.83	0.44		
	urban	68	<b>2.61</b>	0.46		
	rural	127	<b>2.83</b>	0.48	9.176	<b>0.003</b>
	years x workplace	195			1.725	0.163

Table 4

*Differences between factors of the attitude toward the gifted and gifted education regarding the respondents' level of education*

	Completed teacher training studies	N	Median	M rank	Kruskal Wallis $\chi^2$	Sig.
<i>Ability grouping and acceleration</i>	2-year	89	2.86	102.56		
	4-year	96	3.00	105.96	2.057	0.358
	5-year	19	2.57	84.76		
<i>Needs, support and social value of the gifted</i>	2-year	90	<b>3.50</b>	90.12		
	4-year	97	3.63	106.71	14.790	<b>0.001</b>
	5-year	18	<b>4.00</b>	147.42		
<i>Elitism</i>	2-year	87	2.80	104.78		
	4-year	94	2.70	93.02	2.358	0.308
	5-year	17	2.90	108.35		

toward *needs, support and social value of the gifted* compared to teachers with the most work experience (30-44 years). Regarding the completed level of education (Table 4) teachers who completed five-year teacher training studies express support and recognize special needs and value of the gifted for the society to a greater extent than teachers with a completed two-year studies programme, so according to Cohen's guidelines we can classify that effect as moderate ( $r = 0.35$ ).

There is a significant difference in the attitude that *special education of the gifted is elitist* with regard to the teachers' place of work; however, that effect is low (Table 4). Only 5% of the variability in that attitude can be ascribed to the location of a teacher's school (part.  $\eta^2=0.047$ ). The obtained results indicate that teachers in rural schools show a greater concern about the risk of elitism with regard to special programmes and provisions for the gifted, that is they are more inclined to support average students and students with difficulties.

We did not determine a significant interaction effect of the number of years of teaching experience and teachers' place of work for any of the factors of the attitude toward the gifted and gifted education.

The analyses of the significance of differences of the expressed interest in topics concerning giftedness showed the least experienced teachers (0-4 years of teaching experience) to be more interested in the mentioned topics than their most experienced colleagues (30-44 years of teaching experience) (part.  $\eta^2=0.046$ ), and that accordingly teachers with completed 5-year studies have a greater interest than teachers who completed 2-year study programmes (Table 6; effect size  $r = 0.26$ ).

Table 5

*Differences between interest in topics concerning giftedness and gifted education regarding years of teaching experience and the respondents' workplace*

	years/workplace	N	M	SD	F	Sig.
<i>Interest in topics concerning giftedness</i>	0-4 years	37	<b>4.34</b>	0.55	2.744	0.045
	5-15 years	51	4.20	0.57		
	16-29 years	57	4.14	0.66		
	30-44 years	34	<b>3.87</b>	0.77		
	urban	63	4.23	0.58	1.246	0.266
	rural	116	4.10	0.68		
	years x workplace	179			1.732	0.162

Table 6

*Differences between interest in topics concerning giftedness and gifted education regarding the respondents' level of education*

	Completed teacher training studies	N	Median	M rank	Kruskal Wallis $\chi^2$	Sig.
<i>Interest in topics concerning giftedness</i>	2-year	76	<b>4.00</b>	81.38	<b>7.622</b>	<b>0.022</b>
	4-year	89	4.20	94.15		
	5-year	16	<b>4.70</b>	119.19		

We determined significant differences of the perceived knowledge of different topics concerning giftedness obtained during studies with regard to the number of years of teaching and the completed level of education. The results show a greater coverage of topics concerning giftedness during studies for teachers with a work experience up to 16 years in relation to their colleagues with more than 16 years of teaching experience (Table 7; part. eta<sup>2</sup>=0.090). That means that a 2-year teacher training programme provided teachers with significantly less information about giftedness in relation to a 5-year programme. According to Cohen's guidelines, both the years of teaching experience and the education level have a moderately strong effect on the variability in the perceived knowledge of giftedness derived through studies. However, further results indicate that older teachers compensated for the lack of formal education through non-formal and informal education. The results of the significance of differences indicate that teachers with a 2-year education acquired

Table 7

*Differences between perceived knowledge of topics concerning giftedness acquired during studies, teachers' professional conferences and individual professional improvement with regard to the number of years of teaching experience and the respondents' workplace*

	years/workplace	N	M	SD	F	Sig.
Studies	0-4 years	32	<b>2.64<sub>3,4</sub></b>	0.70	4.549	0.005
	5-15 years	47	<b>2.56<sub>3</sub></b>	0.75		
	16-29 years	43	<b>2.01<sub>1,2</sub></b>	0.72		
	30-44 years	24	<b>2.24<sub>1</sub></b>	0.75		
	urban	52	2.34	0.75	0.472	0.493
	rural	94	2.40	0.78		
	years x workplace	146			1.233	0.300
Professional training	0-4 years	35	2.36	0.87	0.778	0.508
	5-15 years	48	2.37	0.72		
	16-29 years	52	2.37	0.61		
	30-44 years	28	2.69	0.70		
	urban	53	2.28	0.71	3.230	0.074
	rural	110	2.49	0.72		
	years x workplace	163			0.578	0.630
Individual professional improvement	0-4 years	35	<b>2.43<sub>3,4</sub></b>	0.84	3.231	0.024
	5-15 years	48	2.61	0.63		
	16-29 years	50	<b>2.83<sub>1</sub></b>	0.54		
	30-44 years	23	<b>2.87<sub>1</sub></b>	0.65		
	urban	53	<b>2.51</b>	0.70	7.317	0.008
	rural	103	<b>2.77</b>	0.65		
	years x workplace	156			1.388	0.249

Note: The indices next to the values of the arithmetic means signify between which groups a significant difference was determined by Tukey's post hoc test (1- from 0 to 4 y., 2- from 5 to 15 y., 3- from 16 to 29 y., 4- from 30 to 44 y.)

more knowledge of giftedness through professional training in relation to teachers with a 4 or 5-year education (Table 8; low effect  $r=0.19$ ). Furthermore, it proved that those teachers gather information on giftedness through individual professional improvement to a greater extent than their colleagues with an education length of 4 or 5 years (Table 8; low effect  $r=0.24$ ). A moderate effect of years of teaching experience on the perceived knowledge acquired through individual professional improvement along with subsequent tests on the significance of differences indicates that teachers with a teaching experience of more than 16 years obtain knowledge of giftedness through individual professional improvement to a significantly greater extent than beginning teachers, i.e. with an experience of 0 to 4 years (Table 7; part.  $\eta^2=0.061$ ). Regarding the place of work it was determined that teachers in rural schools improve themselves individually in professional terms significantly more than teachers in urban schools (Table 7; part.  $\eta^2=0.047$ ).

No significant interaction effects of years of teaching experience and teachers' place of work could be established for the interest and perceived knowledge of topics concerning giftedness.

Table 8

*Differences between perceived knowledge of topics concerning giftedness acquired during studies, teachers' professional conferences and individual professional improvement with regard to the respondents' level of education*

	Completed teacher training studies	N	Median	M rank	Kruskal Wallis $\chi^2$	Sig.
Studies	2-year	57	<b>2.00<sub>3</sub></b>	64.23	<b>8.846</b>	<b>0.012</b>
	4-year	76	2.60	78.09		
	5-year	16	<b>2.80<sub>1</sub></b>	98.72		
Professional training	2-year	69	<b>2.60<sub>2,3</sub></b>	94.50	<b>6.544</b>	<b>0.038</b>
	4-year	83	<b>2.20<sub>1</sub></b>	76.79		
	5-year	14	<b>2.00<sub>1</sub></b>	69.07		
Individual professional improvement	2-year	60	<b>2.80<sub>2,3</sub></b>	90.54	<b>6.749</b>	<b>0.034</b>
	4-year	80	2.60 <sub>1</sub>	74.98		
	5-year	18	<b>2.30<sub>1</sub></b>	62.78		

Note: The indices next to the values of the arithmetic means signify between which groups a significant difference was determined by Tukey's post hoc test (1-2-year studies, 2-4-year studies, 3-5-year studies)

### ***Prediction of the Attitude toward Gifted Students and Gifted Education Based on Interest and Perceived Knowledge of Giftedness***

Since the findings obtained in this study showed that teachers differ in attitudes toward the gifted and gifted education, interest and perceived knowledge of giftedness with regard to the surveyed socio-demographic characteristics, the question arose how predictable the attitudes toward the gifted would be, based on interest, formal, non-formal and informal level of familiarity with topics concerning giftedness, when the effect of the socio-demographic characteristics is controlled. For that purpose three

hierarchical regression analyses were conducted, one for each factor of the attitude (Tables 10, 11, 12). In step 1 the number of years of teaching experience and place of work were introduced, in step 2 the interest in topics on giftedness and their coverage during studies, at professional conferences and in the course of individual professional improvement. Given the high correlation between the years of teaching experience and the level of completed education, only the years of teaching experience were included in the equation. The intercorrelations of the variables examined are shown in Table 9.

Table 9

*Correlation matrix of the factors Attitude toward the gifted, interest in giftedness, perceived knowledge acquired during studies, professional conferences and individual professional improvement, and the respondents' socio-demographic characteristics (education, years of teaching experience and place of work)*

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Grouping and acceleration	1									
2. Needs, support and social value	.310**	1								
3. Elitism	-.328**	-.288**	1							
4. Interest	.081	.307**	-.221**	1						
5. Perceived knowledge during studies	-.004	.064	.003	.020	1					
6. Perceived knowledge at professional conferences	-.080	-.140	.139	-.132	.413**	1				
7. Perceived knowledge during individual improvement	-.147	-.220**	.038	-.021	.274**	.688**	1			
8. Education level	-.045	.273**	-.049	.224**	.244**	-.203**	-.259**	1		
9. Years of teaching experience	-.027	-.262**	.027	-.235**	-.234**	.134	.228**	-.761**	1	
10. Workplace	-.053	-.051	.204**	-.097	.039	.126	.159*	-.086	.017	1

Significance of the correlation coefficient: \*\* Sig.<0.01; \* Sig.<0.05

A statistically significant predictive model for the attitude toward acceleration and ability grouping based on the chosen variables could not be determined (Table 10).

Table 11 shows the results of the hierarchical regression analysis indicating that in step 1, place of work and years of teaching experience explain 7% of the variance in the attitude toward needs, support and social value of the gifted, whereas only "years" prove to be a significant predictor. Teachers with fewer years of work experience have a more positive attitude toward special needs and social value of the gifted.

Table 10

*The results of hierarchical regression analysis for the criterion variable Attitude toward acceleration and ability grouping*

		Beta	t	Sig.	R	R <sup>2</sup>	F
I	workplace	-.053	-.595	.553	.059	.003	.223
	years	-.026	-.294	.769			
II	workplace	-.022	-.240	.811		.029	.907
	years	.042	.420	.676			
II	interest	.090	.967	.335			
	studies	.039	.378	.706			
	professional conferences	.046	.348	.729			
	individual professional improvement	-.193	-1.521	.131			
					.178	.032	.674

Table 11

*The results of hierarchical regression analysis for the criterion variable Attitude toward the needs, support and social value of the gifted*

		Beta	t	Sig.	R	R <sup>2</sup>	F
I	workplace	-.047	-.544	.587	0.266	0.071	4.855**
	years	-.262	-3.059	.003			
II	workplace	.007	.085	.932		.099	3.651**
	years	-.133	-1.445	.151			
II	interest	.276	3.200	.002			
	studies	.073	.761	.448			
	professional conferences	.046	.380	.704			
	individual professional improvement	-.237	-2.019	.046			
					0.412	0.170	4.187**

By including interest and perceived knowledge of topics concerning giftedness covered during studies, at professional conferences and in the course of individual professional improvement, additional 10% of the variance in attitude was explained. The whole set of predictors explained a total of 17% of variance in attitude. Interest and individual professional improvement in topics concerning giftedness proved to be significant predictors, whereas interest has more predictive power. In the last model, after controlling for other variables, the results demonstrated that years of work experience did not independently predict the dependent variable. Referring to the statistically significant contributions it could be said that teachers with a keener interest in topics concerning giftedness and who partook in individual professional improvement to a lesser extent show more positive attitudes toward special needs and social value of the gifted.

The hierarchical regression analysis for the attitude of special education of the gifted as elitist (Table 12) shows that in step 1, place of work and years of teaching experience explain 4% of variance in attitude, yet the workplace is the only significant

predictor: teachers who work in rural schools give a higher estimation that a special approach to the gifted generates elitism. Step 2 explained additional 6% of variance in attitude, and finally the whole model explained 10% of the attitude toward special education of the gifted as elitist. Beside the place of work that maintained its predictive significance even when controlled for, interest in topics concerning giftedness proved a significant predictor as well: teachers working in rural schools and those who find less interest in topics on giftedness share stronger beliefs that special education of the gifted leads to elitism.

Table 12

*The results of hierarchical regression analysis for the criterion variable Attitude toward special education of the gifted as elitist*

		Beta	t	Sig.	R	R <sup>2</sup>	F
I	workplace	.204	2.348	.020	0.206	0.042	2.805*
	years	.024	.271	.787			
II	workplace	.181	2.078	.040		0.058	2.000
	years	-.039	-.413	.681			
II	interest	-.187	-2.085	.039			
	studies	-.069	-.693	.490			
	professional conferences	.195	1.540	.126			
	individual professional improvement	-.101	-.823	.412			
					0.317	0.101	2.298*

## Discussion

For the purposes of this study the authors translated the questionnaire by Gagné and Nadeau (1991) about the attitudes toward the gifted and gifted education, which to our knowledge, has not been used on a sample of Croatian teachers so far. A review of the available research papers from several countries throughout the world leaves the impression that most researchers who used the mentioned questionnaire did not test its psychometric properties on their own sample (e.g. Donerlson, 2008; Lassig, 2009; Lewis & Milton, 2005; Troxclair, 2013), but used subscales as specified by the authors. In the studies that did conduct psychometric verification of the questionnaire, not all subscales proved reliable. For example, the study by Allodi and Rydelius (2008) revealed low reliability for the subscales *Rejection* (0.53) and *Ability grouping* (0.63), and some studies could not confirm the six-factor structure (Al Makhadid, 2012; Chessman, 2010; McCoach & Siegle, 2007). The present study did not confirm Gagné and Nadeau's factor structure either, and the coefficients of internal consistency did not show satisfactory reliability for four of the six subscales. For these reasons a factor analysis was repeated using principal component analysis and Varimax rotation for 25 items which extracted 3 factors entitled *Ability grouping and acceleration*, *Elitism and Needs*, *support and social value of the gifted*. Other studies obtained similar results. For instance, ability grouping and acceleration are two separate subscales in the original questionnaire, yet in the present study, as in Chessman (2010), they merged into one

factor. McCoach and Siegle (2007) named the obtained factor *Elitism* while Chessman (2010) termed that factor *Doubt about negative effects of special provision for the gifted*. As in Chessman (2010), items referring to the recognition of needs, support and social value constitute one factor in this factor structure as well. The extracted factor structure of 3 joint factors explains 38% variance in the attitude toward giftedness, while the remaining part of the variance points to the complexity of the attitude toward giftedness that is insufficiently explained by recognition of the needs, support, social value, special approach and instructional methods of the gifted.

One of the aims of the present study was to examine teachers' attitudes toward the gifted and gifted education. Research from different countries that applied the same instrument and Gagné's interpretation of the resulting scores argue a positive general attitude of teachers toward the gifted, e.g. in the USA (Drain, 2008; McCoach & Siegle, 2007), Australia (Chessman, 2010; Lassig, 2009; Lewis & Milton, 2005), New Zealand (Watts, 2006), Sweden (Allodi & Rydelius, 2008), Saudi Arabia (Al Makhadid, 2012). According to that interpretation, this study revealed the general attitude of Croatian teachers toward the gifted to be barely positive. The teachers actually have a positive attitude toward only one factor, while expressing rather neutral attitudes toward the other two factors, all of which suggest a generally neutral attitude toward the gifted. In other words, teachers recognize the needs, support and social value of the gifted, yet they lack a clearly defined attitude toward special provisions for the gifted, or toward the consequences of special support of the gifted. The results of this study indicate a positive correlation between the attitude toward gifted students and toward ability grouping and acceleration, while teachers of countries with well developed school programmes for the gifted express a positive general attitude toward the gifted, but a mostly negative one toward ability grouping and acceleration (Allodi & Rydelius, 2008; Chessman, 2010; Lassig, 2009; Troxclair, 2013; Watts, 2006). According to the assessments of foreign and Croatian experts, when it comes to education and the organization of a support system for the gifted, Croatia is approximately forty years behind (Galbraith, as cited in Strugar, 2002). In the present study teachers deem themselves interested in topics concerning giftedness, but not sufficiently informed. Only 3.6% of them state that a student they considered gifted was subjected to some sort of identification that would determine the level and type of his/her giftedness. Based on those assessments and the obtained results, it appears that teachers do not have any experience of a systematically organized work with the gifted, which accounts for their lack of clearly defined attitudes toward these special educational provisions. The confirmation of the initial hypothesis about not clearly defined positive or negative attitudes of teachers toward the gifted and gifted education is hence justified.

Since a very small percentage of teachers encountered an identified gifted child in the course of their work, the effect of other variables like the number of years of teaching experience, level of education and place of work on the interest, perceived knowledge and attitude toward the gifted and gifted education was examined.

The results of the research of attitudes toward the gifted and respondents' age are inconsistent. Gagné's analysis (1994a) of 12 studies proved that age was statistically significant in 5 of the studies. In this study teachers with the least work experience (from 0 to 4 years) have the most positive attitudes toward needs, support and social value of the gifted and they express more interest in topics concerning giftedness in relation to teachers with the longest work experience (from 30 to 44 years). Since there is a highly negative correlation between the number of years in teaching and the completed level of education, most teacher training studies in Croatia having changed their programmes over the years, from a two-year study programme to four years and finally – according to the Bologna declaration – to a five-year university study programme, accordingly differences were determined with regard to the level of education. Teachers who graduated within a five-year-teacher training programme have a more positive attitude toward needs, support and social value of the gifted and express keener interest in topics regarding giftedness than teachers who graduated after two years. This can have multiple reasons. On the one hand, young people, beginning teachers, tend to be enthusiastic and ready for changes and innovation in their work. On the other hand, more experienced teachers have more realistic views about the school's work or are less sensitive to the special needs of the gifted. The study by Tomlinson et al. (2004) revealed that more experienced teachers (with longer time in teaching) like to work with students with average abilities best, less with gifted students and least with students with difficulties. Even though official documents (National frame curriculum, 2010; Teaching programme for primary schools, 2006) emphasize the work with students with special needs as one of the goals of contemporary Croatian schooling, practice shows that more attention is paid to students with difficulties for whom teachers need to create an individual educational plan and keep records of the students' progress and who participate in an additional organized teaching form with the school's special education teacher, psychologist or pedagogue. The *Regulations on primary education of gifted students* (Official Gazette NN 34/1991) stipulate a systematic keeping of records of gifted students and the official adaptation of the instructional programme, but the results reveal that gifted students are not even identified, which is a prerequisite for drafting an individualized curriculum.

The years of teaching practice and the education level proved significant with regard to the perceived knowledge of giftedness acquired through formal, non-formal or informal education. The results indicate that teachers with a 5-year-education and teachers with up to 16 years of teaching experience covered topics on giftedness during studies more than teachers with a longer work experience. Teachers who have been working for more than 16 years acquire knowledge of giftedness through individual professional improvement to a greater extent than beginning teachers (0 to 4 years). And again, teachers with a 2-year-education obtain knowledge of giftedness mostly at professional conferences and through individual improvement, more so than do

teachers with a 4- or 5-year education. However, surely during their longer teaching experience they have had more opportunities for professional training and individual improvement than teachers with a 4- or 5-year-education. Nevertheless, the education about giftedness in Croatia cannot be compared to that in developed countries. Having completed their formal education, Croatian teachers have the possibility for further professional improvement in the field of giftedness through professional conferences (lectures on the topic) and individually by studying the relevant literature, while the developed countries (e.g. Australia, Netherlands, Germany, USA) offer additional education in the form of training lasting for several weeks and/or even professional training courses at colleges lasting one or more semesters. Studies conducted in Croatia showed that teachers express the need for additional professional improvement in the field of giftedness which could lead to the conclusion that they believe to be lacking all the necessary knowledge and competencies in that area (Pavin, Vizek Vidović & Miljević Ridžički, 2006; Pleić, 2010; Roeders, 2013; Vojnović, 2008).

The third difference that was examined in attitude, interest and perceived knowledge of the gifted and gifted education refers to the place of work. The findings revealed differences between teachers working in urban and rural schools, whereas teachers working in the country express more concern about the possibility of special provisions and relations to the gifted leading to elitism. We assume that rural schools cultivate rather collectivistic values and are oriented toward the support of average students and students with difficulties. It is important to note that the difference described could not be determined in the factor recognizing needs, support and value of the gifted, which tells us that they recognize them as well as do teachers in city schools, but they object to their accentuation and special treatment that requires additional care and financial investments in students, who will most likely leave the village by the end of their education. The present study further revealed that teachers from rural schools partake in individual professional improvement more than teachers in the city. The result obtained does not comply with the study conducted by Posavec (2008) where there were no differences between the attitudes of teachers with regard to the location of their school which poses some new issues that should be further investigated.

The second issue of the present study was to determine the relation between the attitude toward the gifted and the level of interest and perceived knowledge of giftedness (during studies, at professional conferences and through individual professional improvement). The findings of research into the connection of attitudes toward the gifted and additional forms of teachers' professional improvement are different. Some revealed differences among teachers who completed, or are in the process of completing, some form of additional educational training in this area (Gross, 1994; 1997), while others report no differences between these groups of teachers (Allodi & Rydelius, 2008; Lewis & Milton, 2005; McCoach & Siegle, 2007). We assumed that a higher level of interest and perceived knowledge of giftedness can predict positive attitudes toward gifted students. To achieve this, three hierarchical

regression analyses were undertaken. In each analysis, one of the above-described attitudinal factors was a dependent variable, while socio-demographic variables were controlled for (step one). The interest and different forms of the perceived knowledge were independent variables in each of the regression analyses.

The perceived knowledge of giftedness acquired during studies or professional improvement did not prove to be a significant predictor on any factor of the attitude toward the gifted and gifted education, which is contrary to our expectations. Teachers stated that the topics mostly covered during studies, at professional conferences and during individual improvement were *general information on giftedness* and *characteristics of gifted students*, and as topics they were most interested in, the respondents mentioned *special educational provisions for gifted students within regular classes* and *ways to identify gifted students*. This finding suggests the conclusion that only declarative knowledge is available to them, and what they lack is experiential learning and the acquisition of procedural knowledge. This is confirmed by a longitudinal study that was observing gifted students in Croatia and revealed that teachers tend to apply unequal criteria when nominating gifted children, because in the course of their education they are provided with only general and insufficient knowledge for working with gifted students (Lovretić, 2001). Similarly, the results on the factor *acceleration and ability grouping* display no significant correlation with any of the variables examined, except for the remaining two factors of attitudes toward the gifted, and no significant differences could be determined with regard to socio-demographic characteristics. If we take into account the results that indicate neutral attitudes of teachers toward these special provisions for the gifted, it is possible that the lack of the perceived knowledge and one's own insufficient experience lead to the impossibility of adopting an attitude toward the issues at hand. The result of the present study that reveals the least interest in acceleration and the lowest level of perceived knowledge of the same, confirms that assumption. Of the total number of respondents, 39% never dealt with acceleration during studies, 43% never dealt with it at professional conferences either, and 32% did neither during individual professional improvement. Only 66% of the teachers expressed interest in acceleration while, for comparison, 86% were interested in special provisions for the gifted within regular classes.

A regression equation explains 17% variance of the attitude toward needs, support and social value of the gifted. Interestingly, beside interest as a significant positive predictor, individual professional improvement also turned out as a significant predictor, but in the negative sense. To conclude, a positive attitude toward needs, support and social value of the gifted can be explained by a higher interest in giftedness and a lower level of perceived knowledge acquired through individual professional improvement. Since correlation cannot explain the cause-and-effect relationship, we cannot claim that individual professional improvement will reduce the sensitivity to needs, support and social value of the gifted or that a positive attitude will diminish the wish for individual improvement in giftedness. A possible explanation is, for instance,

that teachers who improve professionally more often are simultaneously more aware of their own increased engagement and responsibility that instruction of the gifted implies, but also of the absence of adequate professional support of the school. Even if they were sensitive to the needs of the gifted and ready to support them, but encountered inadequate professional and financial support of the school, due to the tension that arose over two inconsistent simultaneous cognitions or cognitive dissonance (Festinger, 1957), they changed their attitude, since they could not change their behaviour. On the other hand, it is possible that in their work they already invest additional effort in gifted students so they do not consider it necessary to invest even more.

Approximately 10% of the attitude toward elitism of the gifted can be predicted by the mentioned regression equation, with interest and the already mentioned workplace proving to be significant. Expectedly, those who worry that special treatment of the gifted might lead to elitism also show less interest in topics concerning giftedness.

The practical value of this study, beside the description of the teachers' level of interest and perceived knowledge of giftedness and finally their attitudes, is that it provides some organizational guidelines regarding the topics and instructional methods for teachers' professional improvement, as well as an appeal to education institutions to take the teachers' interest seriously, especially with beginning teachers, and provide them with the possibility to work with the gifted in practice.

The limitations of the present study lie in the accidental sampling of primary school teachers from only one county, making it impossible to generalize and draw conclusions about the whole teacher population in Croatia, as seen from the comparison with research results from another study (Posavec, 2008). A second limitation arises from the translation of the measuring instrument. Good psychometric properties that items might have in their original form could be diminished in the translation due to cultural and contextual differences, but also possible errors in the translation. Gagné and Nadeau's instrument (1991) was created in another language, in an education context and with working conditions of teachers different from those in Croatia, hence the influence of these factors on the interpretation of the items ought to be taken into account.

## Conclusion

The present study shows that the respondent teachers recognize the needs of gifted students, they are aware of the need for support and of the social value of the gifted, but they lack clearly defined attitudes toward acceleration and ability grouping. There is interest among the teachers, but there is also absence of adequate perceived knowledge of giftedness and a lack of experiential practice in special provisions for gifted students. A gifted student in primary school might encounter a teacher with positive attitudes toward the gifted, but he/she will not experience teaching adjusted to his/her needs. Even though the *Regulations on primary education of gifted students* (NN<sup>1</sup> 34/1991) stipulate an identification procedure and different educational methods

with the gifted, schools without a school psychologist have difficulties implementing all the requested legal regulations, which in the end impedes teachers' work due to insufficient professional support. Differentiated programmes for the gifted as one of the priorities of the Croatian school system (National frame curriculum, 2010; Teaching programme for primary schools, 2006) look good on paper, but teachers, the key personalities in the adjustment of education to the real needs of the gifted, reveal the need for additional professional education and training in this field. Precisely that fact ought to be the starting point for the organization of teachers' professional improvement sessions and for the education of future teachers, an education that will keep up with new insights and understandings, with the aim to improve teachers' knowledge and competencies in the field of giftedness. Yet even though the teacher is an important person in the identification and development of giftedness, we should not neglect the essential support of the whole education system on the national level.

## References

- Al-Makhalid, K. A. (2012). *Primary Teachers Attitudes and Knowledge Regarding Gifted Pupils and Their Education in the Kingdom of Saudi Arabia* (Doctoral dissertation). University of Manchester, UK /online/. Retrieved on 4<sup>th</sup> January 2013 from <https://www.escholar.manchester.ac.uk/>
- Allodi, W., & Rydelius, P-A. (2008). *The needs of gifted children in context: a study of Swedish teachers' knowledge and attitudes*. Paper presented at the ECHA conference Prague, Czechoslovakia /online/. Retrieved on 8<sup>th</sup> December 2012 from <http://www.academia.edu/>
- Bégin, J., & Gagné, F. (1994a). Predictors of a Attitude toward Gifted Education: A Review of the Literature and a Blueprint for Future Research. *Journal for the Education of the Gifted*, 17(2), 161-179. <http://dx.doi.org/10.1177/016235329401700206>
- Bégin, J., & Gagné, F. (1994b). Predictors of a general attitude toward gifted education. *Journal for the Education of the Gifted*, 18(1), 74-86. <http://dx.doi.org/10.1177/016235329401800106>
- Bohner, G., & Wänke, M. (2002). *Attitudes and attitude change*. East Sussex: Psychology Press.
- Borland, J. H. (2009). Myth 2: The Gifted Constitute 3% to 5% of the Population. Moreover, Giftedness Equals High IQ, Which Is a Stable Measure of Aptitude. *Gifted Child Quarterly*, 53(4), 236-238. <http://dx.doi.org/10.1177/0016986209346825>
- Busse, T. V., Dahme, G., Wagner, H., & Wieczorkowski, W. (1986). Teacher perceptions of highly gifted students in the United States and West Germany. *Gifted Child Quarterly*, 30(2), 55-60. <http://dx.doi.org/10.1177/001698628603000202>

---

<sup>1</sup> Official Gazette of the Republic of Croatia

- Chessman, A. M. (2010). *Teacher Attitudes and Effective Teaching Practices for Gifted Students at Stage 6 (Doctoral dissertation)*. University of New South Wales, Australia. /online/. Retrieved on 8<sup>th</sup> December 2012 from <http://unswworks.unsw.edu.au>
- Čudina-Obradović, M., & Posavec, T. (2009). Korelati pozitivnih, negativnih i ambivalentnih gledišta učitelja o darovitosti. *Napredak*, 150(3-4), 425-450.
- Donerlson, E. R. (2008). *Elementary school teachers' attitudes and beliefs toward teaching gifted students in heterogeneous classrooms (Doctoral dissertation)*. Walden University, Minneapolis, MN. /online/. Retrieved on 14<sup>th</sup> January 2012 from <http://books.google.hr/>
- Drain, D. (2008). *Teachers' Attitudes and Practices Toward Differentiating for Gifted Learners in K-5 General Education Classrooms (Doctoral dissertation)*. The College of William and Mary, VA. /online/. Retrieved on 10<sup>th</sup> February 2012 from <http://books.google.hr/>
- Festinger, L. (1957). *A Theory of Cognitive Dissonance*. Stanford, CA: Stanford University Press.
- Gagné, F., & Nadeau, L. (1991). *Opinions about the gifted and their education*. Unpublished instrument.
- Geake, J. G., & Gross, M. U. M. (2008). Teachers' Negative Affect Toward Academically Gifted Students: An Evolutionary Psychological Study. *Gifted Child Quarterly*, 52(3), 217-231. <http://dx.doi.org/10.1177/0016986208319704>
- Gross, M. U. M. (1994). Changing teacher attitudes to gifted students through inservice training. *Gifted and Talented International*, 9, 15-21.
- Gross, M. U. M. (1997). Changing teacher attitudes toward gifted children: An early and essential step. In J. Chan, R. Li, & J. Spinks (Eds.), *Proceedings of the 11th World Conference on Gifted and Talented Children, "Maximizing potential: Lengthening and strengthening our stride"* (pp. 3-22). Hong Kong: University of Hong Kong, Social Sciences Center.
- Hertberg-Davis, H. (2009). Myth 7: Differentiation in the Regular Classroom is Equivalent to Gifted Programs and Is Sufficient: Classroom Teachers Have the Time, the Skill, and the Will to Differentiate Adequately. *Gifted Child Quarterly*, 55(4), 251-253. <http://dx.doi.org/10.1177/0016986209346927>
- Hong, E., Greene, M., & Hartzell, S. (2011). Cognitive and Motivational Characteristics of Elementary Teachers in General Education Classrooms and in Gifted Programs. *Gifted Child Quarterly*, 55(4), 250-264. <http://dx.doi.org/10.1177/0016986211418107>
- Kaplan, S. N. (2009). Myth 9: There Is a Single Curriculum for the Gifted. *Gifted Child Quarterly*, 53(4), 257-258. <http://dx.doi.org/10.1177/0016986209346934>
- Koren, I. (1996). Neke karakteristike stavova učitelja o pojavi nadarenosti i nadarenim pojedincima. *Napredak*, 137(1), 16-27.
- 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.
- Lewis, E., & Milton, M. (2005). Attitudes of teachers before and after professional development. *The Australasian Journal of Gifted Education*, 14(1), 5-14.
- Lovretić, M. (2001). *Rezultati praćenja darovitih osoba: Izvještaj o provedenom istraživanju*. Virovitica: Hrvatski zavod za zapošljavanje.
- McCoach, D. B., & Siegle, D. (2007). What Predicts Teachers' Attitudes Toward the Gifted. *Gifted Child Quarterly*, 5(3), 246-255. <http://dx.doi.org/10.1177/0016986207302719>

- McGinty McCord, P. (2010). *The Influence of Teacher Characteristics on Preference for Models of Teaching* (Doctoral dissertation). University of Southern California, Los Angeles, CA. /online/. Retrieved on 23<sup>rd</sup> February 2012 from <http://digitallibrary.usc.edu/>
- Nacionalni okvirni kurikulum za predškolski odgoj i opće obvezno obrazovanje u osnovnoj i srednjoj školi (2010). Zagreb: Ministarstvo znanosti, obrazovanja i športa RH /online/. Retrieved on 8<sup>th</sup> January 2011 from <http://public.mzos.hr/>
- Nastavni plan i program za osnovnu školu (2006). Zagreb: Ministarstvo znanosti, obrazovanja i športa RH /online/. Retrieved on 8<sup>th</sup> January 2011 from <http://public.mzos.hr/>
- Pallant, J. (2010). *SPSS Survival Manual (4th edition): A Step by Step Guide to Data Analysis using SPSS*. Maidenhead: Open University Press.
- Pavin, T., Vizek Vidović, V., & Miljević-Ridički, R. (2006). *Poticanje profesionalnog razvoja učitelja i nastavnika i unaprjeđenje učenja i poučavanja u zemljama jugoistočne Europe: Hrvatska: Nacionalni izvještaj* /online/. Retrieved on 8<sup>th</sup> January 2011 from <http://www.see-educoop.net/>
- Petz, B. (1992). *Psihologički rječnik*. Zagreb: Prosvjeta.
- Pleić, N. (2010). Mišljenja i stavovi učitelja o darovitim učenicima. *Školski vjesnik*, 59(1), 19-37.
- Posavec, T. (2008). *Stavovi učitelja prema darovitosti i darovitim učenicima u Varaždinskoj županiji* (Unpublished master's thesis). Zagreb: Učiteljski fakultet Sveučilišta u Zagrebu.
- Pravilnik o osnovnoškolskom odgoju i obrazovanju darovitih učenika (1991). *Narodne novine*, br. 34/91. Retrieved on 8<sup>th</sup> January 2011 from <http://www.mzos.hr/>
- Reis, S. M., & Renzulli, J. S. (2009). Myth 1: The Gifted and Talented Constitute One Single Homogeneous Group and Giftedness Is a Way of Being That Stays in the Person Over Time and Experiences. *Gifted Child Quarterly*, 53(4), 233-235. <http://dx.doi.org/10.1177/0016986209346824>
- Roeders, P. (2013). *Analiza postojećeg AZOO sustava stručnog usavršavanja odgojno-obrazovnih radnika i procjene potreba za stručnim usavršavanjem odgojno-obrazovnih radnika*. Zagreb: Agencija za odgoj i obrazovanje /online/. Retrieved on 24<sup>th</sup> November 2013 from <http://www.azoo.hr/>
- Rosemarin, S. (2002). Teachers' Attitudes towards Giftedness: A Comparison Between American and Israeli Teachers. *Gifted Education International*, 16(2), 179-191. <http://dx.doi.org/10.1177/026142940201600212>
- Smith, C. (2005). *Teaching Gifted and Talented Pupils in the Primary School*. London: Paul Chapman Publishing.
- Strugar, V. (2002). *Koncepcija promjena odgojno-obrazovnog sustava u Republici Hrvatskoj*. Zagreb: Prosvjetno vijeće Ministarstva prosvjete i športa Republike Hrvatske.
- Tirri, K., Tallent-Runnels, M., & Adams, A. M. (1998). *Cross-Cultural Study of Teachers' Attitudes Toward Gifted Children and Programs for Gifted Children*. Paper presented at the Annual Meeting of the American Educational Research Association. San Diego, SAD.
- Tirri, K. A., Tallent-Runnels, M. K., Adams, A. M., Yuen, M., & Lau, P. S. Y. (2002). Cross-Cultural Predictors of Teachers' Attitudes Toward Gifted Education: Finland, Hong Kong, and the United States. *Journal for the Education of the Gifted*, 26(2), 112-131.

- Tomlinson, C. A., Tomchin, E. M., Callahan, C. M., Adams, Ch. M., Pizzat-Tinnin, P. et al. (2004). Practices of preservice teachers related to gifted and other academically diverse learners. In C. A. Tomlinson (Ed.), *Differentiation for Gifted and Talented Students* (pp. 191-208). Thousand Oaks: Convin Press.
- Troxclair, D. A. (2013). Preservice Teacher Attitudes Toward Giftedness. *Roeper Review*, 35, 58-64. <http://dx.doi.org/10.1080/02783193.2013.740603>
- Vizek Vidović, V. (2008). Osobine darovite djece. In V. Vlahović-Štetić (Ed.), *Daroviti učenici: teorijski pristup i primjena u školi* (pp. 25-47). Zagreb: Institut za društvena istraživanja.
- Vojnović, N. (2008). Stanje, problemi i potrebe u području skrbi o darovitim učenicima u hrvatskom školskom sustavu. In V. Vlahović-Štetić (Ed.), *Daroviti učenici: teorijski pristup i primjena u školi* (pp. 81-118). Zagreb: Institut za društvena istraživanja.
- Watts, G. (2006). Teacher attitudes to the acceleration of the gifted: a case study from New Zealand. *Gifted and Talented*, 10(1), 11-19.

---

**Ivana Perković Krijan**

Department for Lifelong Learning  
Faculty for Educational Sciences  
Josip Juraj Strossmayer University of Osijek  
Cara Harijana 10, 31000 Osijek, Croatia  
perkovic.ivana@gmail.com

**Lana Jurčec**

Faculty of Teacher Education  
University of Zagreb  
Savska cesta 77, 10000 Zagreb, Croatia  
lana.jurcec@ufzg.hr

**Edita Borić**

Department for Lifelong Learning  
Faculty for Educational Sciences  
Josip Juraj Strossmayer University of Osijek  
Cara Harijana 10, 31000 Osijek, Croatia  
eboric@ufos.hr

# Stavovi učitelja primarnog obrazovanja prema darovitim učenicima

---

## Sažetak

Cilj ovog istraživanja bio je ispitati stavove učitelja primarnog obrazovanja prema darovitim učenicima i nekim pristupima njihova obrazovanja (akceleracija i grupiranje prema sposobnostima), njihov odnos s izrazanim interesom i informiranošću o određenim temama iz područja darovitosti tijekom studija, stručnih skupova i individualnog usavršavanja i neka sociodemografska obilježja učitelja. U istraživanju je sudjelovalo 209 učitelja razredne nastave Brodsko-posavske županije. Stavovi učitelja procijenjeni su s pomoću (za potrebe ovog istraživanja na hrvatski jezik prevedenog i metrijski validiranog) Gagné i Nadeau upitnika (1991) o darovitim učenicima i njihovu obrazovanju. Rezultati pokazuju da učitelji općenito imaju neutralan stav prema darovitim, odnosno da učitelji prepoznaju potrebe, podršku i društvenu vrijednost darovitih, ali da nemaju jasno izražen stav prema pristupima radu s darovitim kao ni prema posljedicama posebne potpore darovitih. Utvrđene su razlike u stavovima prema darovitima, interesu i informiranosti o području darovitosti s obzirom na godine radnog staža, stupanj obrazovanja i mjesto rada. Hjерарhijskim regresijskim analizama utvrđeno je da su značajni prediktori stava o potrebama, podršci i vrijednosti darovitih zainteresiranost i individualno usavršavanje o temama iz područja darovitosti. Stav o elitizmu darovitih značajno predviđaju mjesto rada i zainteresiranost.

**Ključne riječi:** daroviti učenici; obrazovanje darovitih; stavovi; učitelji primarnog obrazovanja.

## Uvod

Daroviti učenici iskazuju širok raspon osobina i međusobno ne pokazuju uvijek iste karakteristike. Zbog toga se nerijetko događa da zbog svojih jedinstvenih sposobnosti koje nisu prepoznate i na odgovarajući način zadovoljene, u školi ne postižu odgovarajuće rezultate. U školi se često susreću s neusklađenošću nastave s njihovim potrebama, preniskim intelektualnim zahtjevima, vršnjacima drugačijih interesa i učiteljima podvojenih stavova (Allodi i Rydelius, 2008).

Učitelji imaju važnu ulogu u razvoju darovitih učenika i čine sastavni dio uspješnog obrazovanja darovitih. Uspješan učitelj ima široku i duboku razinu znanja o području koje poučava, primjenjuje odgovarajuće nastavne strategije, koristi se različitom nastavnom tehnologijom, poznaje osobine učenika i svim se navedenim znanjima koristi u nastavi (Hong, Greene i Hartzell, 2011). Istraživanja potvrđuju da je za razvoj potencijala darovitih učenika važno učiteljevo razumijevanje njegovih kognitivnih, socijalnih i emocionalnih potreba. Zadovoljavanje kognitivnih potreba uključuje mogućnost odabira sadržaja za koje učenik iskazuje interes, izlaganje novim izazovnim temama na višim razinama znanja, tempo podučavanja prilagođen sposobnostima učenika. Socijalne i emocionalne potrebe darovitih uključuju učiteljevo razumijevanje neusklađenosti njihova intelektualnog i emocionalnog razvoja, specifičnog odnosa prema vršnjacima i perfekcionizam koji im je često svojstven (McGinty McCord, 2010).

Sve prethodno navedeno potvrđuje da se daroviti učenici zbog svojih jedinstvenih osobina razlikuju od većine učenika, što uvjetuje i njihove posebne obrazovne potrebe (Vizek Vidović, 2008), a učitelji imaju ključnu ulogu u prilagodbi nastave njihovim potrebama. Istraživanja pokazuju da stavovi mogu odrediti uspjeh učitelja u zadovoljavanju potreba darovitih učenika i time izravno utjecati na njihovo obrazovanje (Al-Makhalid, 2012). Iako utjecaj stavova na ponašanje osobe nije uvijek konzistentan, generalno gledano postoji povezanost između stavova i ponašanja pojedinaca (Bohner i Wänke, 2002). Upravo ih to obilježe čini važnim za proučavanje i istraživanje jer to znači da stavovi učitelja prema darovitim utječu na njihov odnos i postupke prema darovitim. No isto tako, stavovi učitelja prema darovitim imaju utjecaj na izgradnju stavova učenika prema darovitim (Smith, 2005).

Stavovi odražavaju vrijednosti društva u kojem su nastali. Neka su društva više usmjereni egalitarizmu u obrazovanju naspram elitizmu, neka više intelektualnim postignućima naspram sportskim i umjetničkim, a u nekim društvima prevladava shvaćanje darovitosti kao urođene sposobnosti naspram utjecaju okoline. Različite društvene vrijednosti utječu na stavove učitelja prema darovitim i na njihovu praksu (Čudina Obradović i Posavec, 2009). Na temelju stavova prema darovitim možemo zaključivati i o vrijednostima društva. Stavovi nisu uvijek utemeljeni na znanstvenim činjenicama, nego često proizlaze iz predrasuda. Neke od najčešćih predrasuda jesu: daroviti čine homogenu grupu (Reis i Renzulli, 2009), daroviti čine od 3 do 5% populacije (Borland, 2009), diferencijacija u okviru redovite nastave može zamijeniti programe i grupe za darovite učenike (Hertberg-Davis, 2009) itd. Predrasude nastaju jer fenomen koji opisuju nije jednostavno shvatiti, pa o njemu postoje podvojene predodžbe i dvosmisleni dokazi (Kaplan, 2009). No isto tako stavovi se mogu oblikovati putem obrazovanja, biti utemeljeni na činjenicama dobivenim u istraživanjima i upućenosti u različite koncepte o darovitosti (Troxclair, 2013) te upravo u toj činjenici imamo prostor za djelovanje.

S obzirom na to da u određenoj mjeri postoji povezanost između stavova i ponašanja pojedinca, predmet mnogih istraživanja u području odgoja i obrazovanja jesu stavovi

učitelja prema darovitima i različitim oblicima rada s darovitim. Iako postoje brojna istraživanja, još uvijek nemamo eksplisitnu predodžbu stavova učitelja prema darovitima (Al-Makhalid, 2012; Bégin i Gagné, 1994b; Čudina Obradović i Posavec, 2009; Donerlson, 2008; Geake i Gross, 2008; McCoach i Siegle, 2007; Troxclair, 2013; Watts, 2006). Različiti rezultati istraživanja proizlaze iz činjenice da su korištene različite metodologije istraživanja, istraživanja su provedena u različitim kulturama u kojima postoje i različiti školski sustavi, škole i programi za darovite, ali i razlike među ispitanicima (Al-Makhalid, 2012).

Postoji više istraživanja u svijetu u kojima je, kao i u ovom istraživanju, za ispitivanje stavova prema darovitima upotrijebljen instrument „Opinions About the Gifted and Their Education Questionnaire“ (Gagné i Nadeau, 1991). Rezultati provedenih istraživanja pokazali su da učitelji uglavnom imaju pozitivne stavove prema darovitima, posebno prema prepoznavanju potreba i podrške (Allodi i Rydelius, 2008; Chessman, 2010; Čaro, 2009; Drain, 2008; Lassig, 2009; Lewis i Milton, 2005; McCoach i Siegle, 2007; Troxclair, 2013; Watts, 2006). Prema akceleraciji uglavnom prevladavaju negativni stavovi (Allodi i Rydelius, 2008; Chessman, 2010; Čaro, 2009; Drain, 2008; Lassig, 2009; Troxclair, 2013; Watts, 2006), a prema homogenom su grupiranju podvojeni. U nekim istraživanjima prevladavaju neutralni (Drain, 2008; Lassig, 2009), a u nekim negativni stavovi (Allodi i Rydelius, 2008; Chessman, 2010; Čaro, 2009; Troxclair, 2013; Watts, 2006). S obzirom na to da nijedno navedeno istraživanje ne upućuje na pozitivne stavove prema akceleraciji i homogenom grupiranju, učitelji očito te pristupe u radu s darovitim ne vide kao pozitivna rješenja u zadovoljavanju potreba darovitih (Chessman, 2010; McCoach i Siegle, 2007; Lassig, 2009; Troxclair, 2013; Watts, 2006). Troxclair (2013) smatra da su takvi stavovi odraz predrasuda koje prevladavaju u društvu zbog nedovoljne upućenosti u navedene pristupe u radu s darovitima.

Pregledom istraživanja vidi se da su se nastojali povezati mnogobrojni faktori sa stavovima prema darovitima kako bi se utvrstile razlike među ispitanicima. Bégin i Gagné (1994a), analizirajući ukupno 35 studija, utvrdili su da se spominje gotovo pedeset različitih prediktora stavova. Među navedenim varijablama između ostalih se razmatraju dob, godine učiteljskog iskustva, stupanj obrazovanja i percipirano znanje o darovitosti. Dob i godine učiteljskog iskustva često se povezuju sa stavovima prema darovitima i uglavnom se traže razlike u stavovima između učitelja početnika i iskusnih učitelja (Posavec, 2008). No rezultati istraživanja u pogledu dobi uglavnom su miješani. Neka su istraživanja pokazala da pozitivnije stavove imaju mlađi učitelji (Tomlinson i sur., 2004), a neka da pozitivnije stavove imaju stariji učitelji (Posavec, 2008). Osim dobi i učiteljskog iskustva sa stavovima se povezuje educiranost učitelja u području darovitosti, odnosno jesu li znanje i završeni stupanj obrazovanja učitelja povezani s pozitivnošću stavova. Bilo bi logično očekivati da učitelji koji su bolje upoznati s osobinama darovitih učenika, prednostima i poteškoćama rada s njima, imaju više razumijevanja i pozitivnije stavove prema darovitima. Tu prepostavku potkrepljuju istraživanja koja potvrđuju povezanost pozitivnijih stavova učitelja koji su

se više od ostalih učitelja educirali u području darovitosti (Al-Makhalid, 2012; Lassig, 2003; Megay-Nespoli, 2001). U Hrvatskoj na sveučilištima ne postoji mogućnost dodatne specijalističke edukacije u području rada s darovitim učenicima. Potrebna znanja iz područja darovitosti učitelji mogu dobiti u svom formalnom učiteljskom obrazovanju, a zatim putem stručnih usavršavanja tijekom radnog staža. Učitelji već u nekoliko istraživanja upućuju na potrebu dodatne edukacije u tom području (Pavin, Vizek Vidović i Miljević Riđički, 2006; Pleić, 2010; Roeders, 2013; Vojnović, 2008). Osim nedovoljne edukacije učitelja, postoje još neki pokazatelji koji govore o tome da u hrvatskim školama nema sustavne brige i skrbi za darovite učenike. Tako, npr. podatak da je samo 25 učenika akceleriralo razred u posljednjih 10 godina ukazuju na neiskorištenu mogućnost ubrzanog svladavanja programa. Nedovoljan broj psihologa u osnovnim školama ukazuje na nedostatak odgovarajuće stručne pomoći učiteljima kako bi se mogla izvršiti pravodobna identifikacija i izrada kurikula prilagođenog mogućnostima darovitog učenika. Vojnović (2008) u svom istraživanju ukazuje na to da se postupak identifikacije darovitih učenika kao planski i sustavan postupak u 53,1% osnovnih škola, u kojima je provedeno ispitivanje, ne provodi.

U Hrvatskoj je još nedovoljan broj istraživanja kojima je cilj ispitati stavove učitelja prema darovitim učenicima i različitim oblicima rada s njima, pa o stavovima možemo zaključivati na temelju istraživanja koje su proveli Koren (1996) i Posavec (2008). Koren (1996) je proveo istraživanje na reprezentativnom uzorku od 342 učitelja u kojem su SNAD instrumentom ispitani stavovi prema darovitosti, ulozi škole u identificiranju i tretmanu darovitih i ulozi društva u razvoju darovitih pojedinaca. Rezultati su pokazali pozitivne stavove prema ranoj identifikaciji darovitih i organiziranju društvene potpore prema darovitim. Veća neslaganja učitelja postoje za tvrdnje da s darovitim mogu raditi samo daroviti učitelji, da neki učitelji koče optimalan razvoj darovitih i da darovite treba selekcionirati u posebne razrede i škole. Posavec (2008) je provela istraživanje na području Varaždinske županije koristeći se istim instrumentom (SNAD) na uzorku od 241 učitelja te dobila slične rezultate – izrazito visoko slaganje ispitani su iskazali prema ranoj identifikaciji, potrebi društvene brige za darovite bez obzira na materijalni status njihovih obitelji, kompetenciji učitelja da prepozna osobine i potrebe darovitih i važnosti društvene brige za darovite pojedince. Većina ispitanih donekle se slaže ili je neodlučna u vezi s izdvajanjem darovitih učenika, pa se može zaključiti da nemaju negativan stav. Dužina učiteljskog staža, ugodna iskustva u rada s darovitim, zaokupljenost učiteljskim radom i zadovoljstvo u radu povezani su pozitivnošću ili ambivalentnošću stava prema darovitim.

Iako je Gagné i Nadeauov (1991) upitnik u svijetu često primjenjivan, u Hrvatskoj do sada, koliko je autoricama poznato, nije korišten, stoga je prvi cilj istraživanja bio ispitati pouzdanost i faktorsku valjanost hrvatskog prijevoda upitnika. Drugi je cilj bio utvrditi stavove prema darovitim i u kakvom su odnosu s nekim sociodemografskim obilježjima (iskustva rada u školi – staž, stupanj završenog obrazovanja, mjesta rada – selo / grad), iskazanim interesom i informiranosti o određenim temama iz područja

darovitosti. Svi prethodno navedeni podatci ukazuju na stanje u hrvatskim školama, stoga u ovom istraživanju polazimo od dvije osnovne hipoteze. Prva je da učitelji nemaju jasno izražene pozitivne ili negativne stavove prema darovitim učenicima jer u razrednoj nastavi nema sustavne podrške darovitim (stoga ni iskustva sustavnog rada). Druga je da će učitelji imati pozitivnije stavove prema darovitim ako su zainteresirani i informirani o području darovitosti. S obzirom na navedena istraživanja očekujemo razlike u stavovima učitelja s obzirom na godine staža i završeni stupanj obrazovanja. Pozitivnije stavove očekujemo kod mlađih učitelja jer oni ujedno imaju i viši stupanj obrazovanja u Hrvatskoj.

## **Metodologija**

### **Sudionici i postupak**

U istraživanju je sudjelovalo 209 učitelja primarnog obrazovanja iz 18 škola Brodsko-posavske županije (što čini 50,48% od ukupnog broja učitelja u županiji). Istraživanjem je obuhvaćeno 6 gradskih i 12 seoskih škola (od ukupno 12 gradskih i 21 seoske škole u županiji), od toga 34,4% sudionika radi u gradskoj školi, 24,9% u seoskoj matičnoj, a 40,7% u seoskoj područnoj školi. Od ukupnog broja ispitanika 93,3% su učiteljice, a 6,7% učitelji. Raspon starosne dobi bio je od 24 do 65 godina, a prosječna dob 41,61 uz standardnu devijaciju 12,36. Raspon iskustva rada u školi bio je od 0 do 44 godine, a prosječan staž 17,04 uz standardnu devijaciju 12,35. Prema obrazovanju, 44,5% ispitanika završilo je dvogodišnji učiteljski studij, 46,4% četverogodišnji učiteljski studij, a 9,1% petogodišnji sveučilišni učiteljski studij. U ispitanom uzorku svega 3,6% učitelja/ica izjavljuju kako je učenik/ica za koju/kojeg su smatrali da je darovit/a prošao/la neku vrstu identifikacije tj. testiranja za utvrđivanje stupnja i vrste darovitosti.

Istraživanje je provedeno metodom anketiranja na više županijskih stručnih vijeća učitelja razredne nastave potkraj 2012. i početkom 2013. godine. Prije početka istraživanja ispitanici su upoznati s ciljem istraživanja pa im je zajamčena anonimnost uz prethodno naglašavanje o važnosti iskrenih odgovora. Za ispunjavanje anketnog upitnika bilo je potrebno izdvojiti do 15 minuta vremena.

### **Instrumenti**

1. **Upitnik o općim podatcima ispitanika** koji se odnosi na varijable: dob, spol, godine učiteljskog staža, stupanj obrazovanja (dvogodišnji ili četverogodišnji učiteljski studij, petogodišnji sveučilišni studij, poslijediplomski studij), mjesto rada škole (grad / selo), te je li učenik kojeg su smatrali darovitim prošao neki oblik testiranja;
2. **Stavovi prema darovitim i njihovom obrazovanju** (Gagné i Nadeau, 1991; engl. *Opinions About the Gifted and Their Education Questionnaire*).

Kako još nije upotrebljavan u Hrvatskoj, u prvoj fazi upitnik je preveden s engleskog na hrvatski jezik. Nakon toga izvorni je govornik hrvatskog jezika, a aktivni govornik

engleskog jezika preveo hrvatski prijevod na engleski. U posljednjoj fazi analizirani su, tvrdnju po tvrdnju, tako dobivena hrvatska inačica i originalni upitnik na engleskom.

Upitnik se sastoji od ukupno 34 tvrdnje, a uz svaku je pridružena skala Likertova tipa od pet stupnjeva na kojoj ispitanici zaokruživanjem izražavaju razinu slaganja ili neslaganja s tvrdnjom (1 – uopće se ne slažem; 5 – u potpunosti se slažem). Tvrđnje su konstruirane na temelju proučavanja postojećih upitnika stavova prema darovitim, analize novinskih članaka i mnogobrojnih intervjeta autora upitnika s učiteljima i roditeljima (Bégin i Gagné, 1994a). Tim se upitnikom ispituju opći stavovi, no neke tvrdnje odražavaju poznatije načine rada s darovitim poput akceleracije i grupiranja prema sposobnostima.

Prema Gagné i Nadeau (1991) upitnik sadrži šest subskala. Prvom subskalom *potrebe i podrška* (engl. *Needs and support*) ispituju se stavovi prema potrebama darovitih i potrebi posebne podrške. Drugom subskalom *opiranje* (engl. *Resistance to Objectives*) ispituju se stavovi prema opiranju posebnom tretmanu darovitih učenika. Treća subskala *društvena vrijednost* (engl. *Social Value*) odnosi se na stavove o vrijednosti darovitih za društvo. Četvrta subskala *odbijanje* (engl. *Rejection*) mjeri percepciju o izoliranosti darovitih u društvu. Petom subskalom *grupiranje prema sposobnostima* (engl. *Ability Grouping*) ispituju se stavovi prema homogenom grupiranju darovitih u školi. Posljednjom subskalom *akceleracija* ispituju se stavovi ispitanika prema školskoj akceleraciji. Visoki rezultati na subskalama *potrebe i podrška, društvena vrijednost, grupiranje prema sposobnostima i akceleracija* ukazuju na pozitivne stavove prema darovitima, a visoki rezultati na subskalama *opiranje i odbijanje* ukazuju na negativne stavove prema darovitima. U *Rezultatima* su prikazane metrijske karakteristike instrumenta, a u Tablici 1. tvrdnje iz upitnika.

### **3. Zainteresiranost i informiranost (formalna, neformalna i informalna) o temama iz područja darovitosti**

Skala *zainteresiranosti* za područje darovitosti mjeri procjenu osobne zainteresiranosti za pet tema iz područja darovitosti: *Opće informacije o darovitosti* (što je darovitost, vrste darovitosti, talentiranost, kreativnost), *Osobine darovitih učenika*, *Načini identifikacije darovitih učenika*, *Načini rada s darovitim učenicima u sklopu redovite nastave*, *Akceleracija*. Ispitanici su na skali od 1 do 5 (1 – nije uopće zanimljiva; 5 – jako je zanimljiva) trebali procijeniti koliko su osobno zainteresirani za pojedinu temu. Cronbachov alfa koeficijent za zanimljivost teme je 0,85.

*Informiranost* o području darovitosti mjeri procjenu obrađenosti tih pet tema *tijekom formalnog (studija), neformalnog (stručni skupovi) i informalnog (individualno) usavršavanja*. Ispitanici su na skali od 1 do 4 (1 – nije uopće obrađeno, 2 – vrlo malo je obrađeno, 3 – većim dijelom je obrađeno, 4 – u potpunosti je obrađeno) trebali procijeniti u kojoj su se mjeri informirali o navedenim temama tijekom studija, stručnih skupova i individualno. Cronbachovi alfa koeficijenti su 0,88 za obrađenost tema iz područja darovitosti tijekom studija, 0,89 tijekom stručnih usavršavanja i 0,86 tijekom individualnog usavršavanja.

## Rezultati

### ***Struktura Upitnika stavova prema darovitim i njihovu obrazovanju***

Ispitivanje pouzdanosti originalnih šest subskala Cronbachovim alfa koeficijentom pokazalo se nezadovoljavajuće. Osim subskala *potreba i podrške* ( $\alpha=0,73$ ) i *grupiranje prema sposobnostima* ( $\alpha=0,71$ ) preostale četiri subskale nisu pokazale zadovoljavajuću unutarnju konzistentnost (*društvena vrijednost*  $\alpha=0,32$ ; *odbijanje*  $\alpha=0,49$ ; *akceleracija*  $\alpha=0,52$ ; *opiranje*  $\alpha=0,64$ ). U skladu s tim ni valjanost upitnika nije se pokazala zadovoljavajućom. Provedena faktorska analiza metodom glavnih komponenata s Varimax rotacijom i zadanih 6 faktora na sve 34 tvrdnje pokazala je da se tvrdnje nisu razvrstale u sadržajno predviđene faktore: nekoliko tvrdnji imalo je podjednaka opterećenja na više faktora, a neke su imale opterećenja niža od 0,30. Nakon uklanjanja navedenih tvrdnji, ponovno je provedena faktorska analiza metodom glavnih komponenata s Varimax rotacijom, sada na 25 tvrdnji (KMO=0,739; Bartlettov test sfericiteta  $\chi^2=1355,198$  uz  $p=0,000$ ). Nakon 7 iteracija apstrahirana su 3 faktora koji zajedno objašnjavaju 38,14% varijance stava o darovitosti. Dobiveni faktori zadovoljavaju Guttmann-Kaiserov i Cattelov Scree kriterij.

U Tablici 1. prikazane su tvrdnje koje su ušle u analizu s faktorskim opterećenjima većim od 0,30 (uklonjene tvrdnje prikazane u Napomeni Tablice 1.). Iako dvije tvrdnje u trećem faktoru imaju opterećenja niža od 0,40, zadržane su jer njihovo uklanjanje značajno narušava pouzdanost faktora, kao i u slučaju tvrdnji koje imaju niža opterećenja na drugim faktorima. Negativni predznaci opterećenja ukazuju na negativnu usmjerenost tvrdnje i nužnost obrnutog vrednovanja prilikom provjeravanja pouzdanosti i određivanja faktorskih rezultata.

Tablica 1.

Prema faktorskoj i sadržajnoj valjanosti, prvi je faktor nazvan *grupiranje prema sposobnostima i akceleracija*, drugi je faktor nazvan *potrebe, podrška i društvena vrijednost darovitih*, a treći faktor *elitizam*. U prvom faktoru saturirane su tvrdnje koje su pripadale dvjema izvornim subskalama: *grupiranje prema sposobnostima i akceleracija*. Dakle, taj faktor odražava stav ispitanika prema različitim pristupima u radu s darovitim, a viši rezultati na tom faktoru ukazuju na pozitivne stavove prema darovitima. Sastoji se od sedam tvrdnji, a koeficijent pouzdanosti iznosi Cronbach alfa 0,73. Drugi faktor *potrebe, podrška i društvena vrijednost darovitih* opisuje posebne odgojno-obrazovne potrebe darovitih, potrebu adekvatne podrške i vrijednosti darovitih za napredak društva. Viši rezultati u tom faktoru ukazuju na pozitivne stavove prema darovitima. Sastoji se od osam tvrdnji, a koeficijent pouzdanosti Cronbach alfa iznosi 0,72. U trećem faktoru, nazvanom *elitizam*, saturirane su tvrdnje u kojima se iskazuje bojazan ispitanika prema stvaranju privilegiranog statusa darovitih u odnosu na ostale učenike. Sastoji se od deset tvrdnji, a za razliku od prethodne dvije

viši rezultat na toj subskali ukazuje na negativniji stav prema darovitim. Koeficijent pouzdanosti Cronbach alfa je 0,70.

Između dobivenih faktora stavova prema darovitim učenicima utvrđena je slaba, no statistički značajna povezanost. Učitelji koji imaju pozitivniji stav o *potrebama, podršci i društvenoj vrijednosti* darovitih, ujedno imaju i pozitivniji stav prema *grupiranju prema sposobnostima i akceleraciji* ( $r=0,310$  uz  $p<0,01$ ), odnosno u manjoj mjeri iskazuju bojazan da bi poseban tretman darovitih preraстао u *elitizam (grupiranje / akceleracija i elitizam r=-0,328 uz p<0,01; potrebe i elitizam r=-0,288 uz p<0,01)*.

### **Stavovi o darovitim i njihovu obrazovanju**

Za utvrđivanje stava prema darovitim i njihovu obrazovanju korištena je Gagnéova (1991) interpretacija vrijednosti rezultata. Prema aritmetičkim sredinama pojedinih tvrdnji rezultat iznad 4,00 označava jako pozitivan stav, a ispod 2,00 jako negativan stav. Rezultati između 2,75 i 3,25 označavaju neutralan stav, što znači da rezultati iznad 2,00 i ispod 2,75 označavaju negativan stav, a iznad 3,25 i ispod 4,00 pozitivan stav.

Rezultati deskriptivne statistike pokazuju kako ispitani učitelji imaju neutralan stav prema homogenom grupiranju i akceleraciji darovitih učenika, pozitivan stav prema potrebama, podršci i vrijednosti darovitih za društvo, a za elitizam je prosječan rezultat na donjoj granici neutralnosti, što sugerira da učitelji nagniju od neutralnog prema pozitivnom stavu o darovitim (Tablica 2.). Ukupno gledano možemo reći da je opći stav ispitanih učitelja u ovom istraživanju na donjoj granici pozitivnog stava prema darovitim i njihovu obrazovanju (ukupan stav  $M=3,29$  uz  $SD=0,39$ ).

Tablica 2.

### **Zainteresiranost i informiranost o temama iz područja darovitosti**

Rezultati pokazuju kako su učitelji poprilično zainteresirani za svih pet tema iz područja darovitosti (Tablica 2.). Od ponuđenih tema one koje ih najviše zanimaju su *načini rada s darovitim učenicima u sklopu redovite nastave* ( $M=4,38$ ;  $SD= 0,80$ ) i *načini identifikacije darovitih učenika* ( $M=4,22$ ;  $SD=0,78$ ), a najmanje *akceleracija* ( $M=3,92$ ;  $SD=0,93$ ). Prema njihovim procjenama, tijekom studija i stručnih skupova teme o darovitosti su podjednako malo obrađene ( $t=-1,335$ ;  $p>0,05$ ). Značajno više su o darovitosti obradili putem samostalnog, individualnog usavršavanja (studij i individualno  $t=-4,451$  uz  $p<0,05$ ; struč. skup i individualno  $t=-6,847$  uz  $p<0,01$ ). Teme koje su se najviše obrađivale tijekom studija, stručnih skupova i individualnog usavršavanja su *opće informacije o darovitosti* ( $M_{stud.}=2,67\pm 0,94$ ;  $M_{st.skup.}=2,71\pm 0,82$ ;  $M_{ind.us.}=2,99\pm 0,79$ ) i *osobine darovitih učenika* ( $M_{stud.}=2,58\pm 0,94$ ;  $M_{st.skup.}=2,59\pm 0,83$ ;  $M_{ind.us.}=2,94\pm 0,79$ ). Najmanje je obrađivana tema *akceleracija* ( $M_{stud.}=1,97\pm 0,93$ ;  $M_{st. skup.}=1,97\pm 0,98$ ;  $M_{ind.us.}=2,21\pm 1,03$ ).

### **3. Stavovi o darovitim, zainteresiranost i informiranost o temama iz područja darovitosti s obzirom na neka sociodemografska obilježja učitelja**

S obzirom na ciljeve istraživanja zanimalo nas je mogu li se utvrditi statistički značajne razlike s obzirom na neke sociodemografske osobine učitelja i njihovu

veličinu utjecaja u stavovima prema darovitima, zainteresiranosti i informiranosti o temama iz područja darovitosti. Budući da je Kolmogorov-Smirnov test (Tablica 2.) pokazao kako ispitivane mjere ne odstupaju od normalne distribucije, za testiranje značajnosti razlika koristila se dvosmjerna analiza varijance (Tablice 3., 5., 7.), osim za varijablu stupnja završenog obrazovanja kod koje se zbog prevelike razlike u veličini skupina ispitanika koristila neparametrijska analiza, tj. Kruskal Wallis H test ( $\chi^2$ ; Tablice 4., 6., 8.). Za tumačenje veličine utjecaja (eng. *effect size*) u parametrijskom (parcijalni eta<sup>2</sup>) i neparametrijskom ( $r$ ) testiranju značajnosti razlika korišten je Cohenov kriterij (1988; Pallant, 2010).

Tablica 3. i 4.

Prema rezultatima testova značajnosti razlika (Tablica 3. i 4.), za stav o akceleraciji i grupiranju prema sposobnostima nisu utvrđene statistički značajne razlike na tom faktoru, odnosno ispitani učitelji bez obzira na njihov staž, stupanj obrazovanja i/ili mjesto rada imaju podjednak stav o grupiranju prema sposobnostima i akceleraciji darovitih učenika.

Analizom varijance (Tablica 3.) utvrđeno je kako se ispitanici značajno razlikuju u stavu prema *potrebama, podršci i vrijednosti darovitih* s obzirom na godine radnog staža. Veličina utjecaja staža je umjerena (parc.eta<sup>2</sup>=0,087), odnosno 9% varijabiliteta u stavu prema *potrebama, podršci i vrijednosti darovitih* može se objasniti godinama radnog staža. Tukeyov *post hoc* test potvrdio je kako učitelji s najmanje radnog iskustva (0 – 4 godine) imaju značajno pozitivniji stav prema *Potrebama, podršci i vrijednosti darovitih* u odnosu na učitelje s najvećim radnim iskustvom (30 – 44 godine). S obzirom na stupanj završenog obrazovanja (Tablica 4.) učitelji sa završenim petogodišnjim učiteljskim studijem u većoj mjeri izražavaju podršku i prepoznaju posebne potrebe i vrijednost darovitih za društvo u odnosu na učitelje sa završenim dvogodišnjim učiteljskim studijem. Prema Cohenovu kriteriju taj utjecaj možemo klasificirati kao umjeren ( $r=0,35$ ).

Stav o *posebnom obrazovanju darovitih kao elitističkom* značajno se razlikuje s obzirom na mjesto rada učitelja, no taj je utjecaj malen (Tablica 4.). Svega 5% varijabiliteta u navedenom stavu može se pripisati mjestu škole u kojoj učitelj radi (parc.eta<sup>2</sup>=0,047). Prema dobivenim rezultatima, učitelji koji rade u seoskim školama izražavaju veću zabrinutost da bi posebni programi i odnos prema darovitima mogli dovesti do elitizma, odnosno skloniji su podršci prosječnim učenicima i učenicima s teškoćama.

Ni u jednom faktoru stava prema darovitima i njihovu obrazovanju nisu utvrđeni značajni interakcijski utjecaji staža i mesta rada učitelja.

Analize značajnosti razlika u iskazanoj *zainteresiranosti za teme iz područja darovitosti* pokazale su kako najmanje iskusne učitelje (0 – 4 godine radnog staža) više zanimaju navedene teme u odnosu na njihove najiskusnije kolege (30 – 44 godine radnog staža) (parc.eta<sup>2</sup>= 0,046), odnosno da je zanimanje veće kod učitelja sa završenim petogodišnjim studijem u odnosu na učitelje sa završenim dvogodišnjim studijem (Tablica 6; veličina utjecaja  $r=0,26$ ).

Tablica 5. i 6.

Za informiranost o različitim temama iz područja darovitosti tijekom studija utvrđene su značajne razlike s obzirom na godine radnog staža i završeni stupanj obrazovanja. Rezultati pokazuju kako su učitelji s radnim iskustvom do 16 godina tijekom studija više obrađivali teme iz područja darovitosti u odnosu na kolege sa stažem dužim od 16 godina (Tablica 7.; parc.eta<sup>2</sup>= 0.090 ), odnosno kako su učitelji u dvogodišnjem učiteljskom obrazovanju značajno manje obrađivali teme iz područja darovitosti u odnosu na učitelje s petogodišnjim obrazovanjem (Tablica 8.; veličina utjecaja  $r=0,31$ ). Prema Cohenovu kriteriju, i za staž, i za stupanj obrazovanja možemo reći da je srednja jačina njihova utjecaja na varijabilitet u informiranosti o temama iz darovitosti tijekom studija. Međutim, daljnji rezultati sugeriraju kako su stariji učitelji nedostatak formalnog obrazovanja kompenzirali neformalnim i informalnim. Rezultati značajnosti razlika pokazuju kako su učitelji s dvogodišnjim obrazovanjem informiraniji o području darovitosti posredstvom stručnog usavršavanja u odnosu na učitelje s četverogodišnjim i petogodišnjim obrazovanjem (Tablica 8.; mali utjecaj  $r=0,19$ ). Također se pokazalo da se ti učitelji i značajno više samostalno usavršavaju u području darovitosti u odnosu na učitelje s četverogodišnjim i petogodišnjim obrazovanjem (Tablica 8.; malen utjecaj  $r=0,24$ ). Umjeren utjecaj radnog staža na informiranost individualnim usavršavanjem uz naknadne testove značajnosti razlike ukazuje na to da se učitelji sa stažem dužim od 16 godina značajno više o darovitosti samostalno usavršavaju od učitelja početnika tj. učitelja s iskustvom do 4 godine (Tablica 7.; parc.eta<sup>2</sup>= 0.061). S obzirom na mjesto rada, učitelji koji rade u seoskim školama značajno se više individualno usavršavaju u odnosu na učitelje iz gradskih škola (Tablica 7.; parc.eta<sup>2</sup>= 0.047).

Za zainteresiranost i informiranost o temama iz područja darovitosti nisu utvrđeni značajni interakcijski utjecaji staža i mjesta rada učitelja.

Tablica 7. i 8.

**Predviđanje stava o darovitim učenicima i njihovu obrazovanju na temelju zainteresiranosti i informiranosti o području darovitosti**

Budući da su dobiveni rezultati pokazali da se učitelji u ovom istraživanju razlikuju u stavovima prema darovitim i njihovu obrazovanju, zainteresiranosti i informiranosti o temama iz područja darovitosti s obzirom na ispitivana sociodemografska obilježja, zanimalo nas je koliko se dobro mogu predvidjeti stavovi o darovitim na temelju zainteresiranosti, formalne, neformalne i informalne razine upoznatosti s temama iz područja darovitosti kada se kontrolira utjecaj sociodemografskih obilježja. S tim ciljem provedene su tri hijerarhijske regresijske analize, po jedna za svaki faktor stava (Tablice 10., 11., 12.). U prvom koraku uvedene su godine radnog staža i mjesto rada, a u drugom zainteresiranost za teme o darovitosti i njihova obrađenost tijekom studija, stručnih skupova i individualnih usavršavanja. S obzirom na to da su godine radnog staža i vrsta završenog obrazovanja u visokoj korelaciji, u regresijsku jednadžbu uvršten je samo staž. Interkorelacije ispitivanih varijabli prikazane su u Tablici 9.

Tablica 9. i 10.

Za stav o akceleraciji i grupiranju prema sposobnostima nije utvrđen statistički značajan prediktivni model na temelju odabranih varijabli (Tablica 10.).

Tablica 11.

U Tablici 11. prikazani su dobiveni rezultati hijerarhijske regresijske analize koji pokazuju da u prvom koraku mjesto rada i staž objašnjavaju 7% varijance stava *o potrebama, podršci i društvenoj vrijednosti darovitih* s tim da je jedino staž značajan prediktor. Učitelji s manje godina radnog staža imaju pozitivniji stav prema posebnim potrebama i društvenoj vrijednosti darovitih. Uvođenjem zainteresiranosti i informiranosti o temama iz područja darovitosti tijekom studija, stručnih skupova i individualnog usavršavanja, objašnjeno je još dodatnih 10% varijance stava. Cijelim skupom prediktora objašnjeno je ukupno 17% varijance stava. Značajnim prediktorima pokazali su se zainteresiranost i individualno usavršavanje o temama iz područja darovitosti, s tim da zainteresiranost ima jaču prediktivnu snagu. U konačnom modelu, nakon što se statistički uklonio utjecaj preklapanja s drugim varijablama, pokazalo se kako staž ne daje jedinstveni doprinos. Prema statistički značajnim doprinosima može se reći kako učitelji koji su više zainteresirani za teme iz područja darovitosti i koji su se u manjoj mjeri samostalno usavršavali u navedenim temama iskazuju pozitivnije stavove o posebnim potrebama i društvenoj vrijednosti darovitih.

Tablica 12.

Hijerarhijska regresijska analiza za stav o posebnom obrazovanju darovitih kao elitističkom (Tablica 12.) pokazuje kako se u prvom koraku mjestom rada i stažem može objasniti 4% varijance stava, s time da je mjesto rada jedini značajan prediktor: učitelji koji rade na selu u većoj mjeri procjenjuju kako poseban pristup darovitim stvara elitizam. Drugim korakom objašnjeno je dodatnih 6% varijance stava, odnosno cijelim modelom objašnjeno je 10% stava o posebnom obrazovanju darovitih kao elitističkom. Osim mesta rada, koje je bez obzira na kontrolu zadržalo svoju prediktivnu značajnost, značajnim prediktorom se pokazala i zainteresiranost za teme iz područja darovitosti: učitelji koji rade u seoskim školama i oni kojima su teme o darovitosti manje zanimljive, u većoj mjeri procjenjuju kako posebno obrazovanje darovitih vodi elitizmu.

## Raspis

Za potrebe ovog istraživanja preveden je upitnik autora Gagné i Nadeau (1991) o stavovima prema darovitim i njihovu obrazovanju koji, koliko je poznato, do sada nije korišten na uzorku hrvatskih učitelja. Pregledom dostupnih radova iz svijeta stječe se dojam kako većina istraživača koji su upotrijebili navedeni upitnik uglavnom nije provjeravala njegove metrijske karakteristike na vlastitom uzorku (npr. Donerlson, 2008; Lassig, 2009; Lewis i Milton, 2005; Troxclair, 2013), već su se koristili subskalama,

kako ih navode autori. U istraživanjima koja su ipak radila metrijsku provjeru upitnika pokazalo se da nisu sve subskale pouzdane, kao primjerice u istraživanju Allodi i Rydelius (2008) u kojem se pokazala niska pouzdanost za subskale *odbijanje* (0,53) i *grupiranje prema sposobnostima* (0,63) ili da se šesterofaktorska struktura nije potvrdila (Al Makhadid, 2012; Chessman, 2010; McCoach i Siegle, 2007). Ni u ovom istraživanju nije potvrđena Gagneova i Nadeaeova faktorska struktura, a koeficijenti unutarnje konzistentnosti nisu pokazali zadovoljavajuću pouzdanost za četiri od šest subskala. Zbog navedenih razloga ponovno je provedena faktorska analiza metodom glavnih komponenata s varimax rotacijom na 25 tvrdnji kojom su apstrahirana 3 faktora nazvana *Grupiranje prema sposobnostima i akceleracija, Elitizam i Potrebe, podrška i društvena vrijednost darovitih*. Slični rezultati dobiveni su i u drugim istraživanjima. Primjerice, grupiranje prema sposobnostima i akceleracija koji su u originalnom upitniku dvije zasebne subskale ovdje su se, kao i kod Chessman (2010), spojile u jedan faktor. Kod McCoach i Siegle (2007) dobiveni je faktor nazvan elitizam, a kod Chessman (2010) je navedeni faktor nazvan *dvojbe o negativnim učincima posebne potpore darovitih*. Kao i kod Chessman (2010) i u ovoj faktorskoj strukturi tvrdnje koje se odnose na prepoznavanje potrebe, podrške i društvene vrijednosti čine jedan faktor. Dobivena faktorska struktura od 3 faktora zajedno objašnjava 38% varijance stava o darovitosti, a preostali dio varijance upućuje na kompleksnost stava o darovitim i njihovu obrazovanju, nedovoljno objašnjenoj prepoznavanjem potreba, podrškom, društvenom vrijednošću, posebnim pristupom i načinom rada s darovitim.

Jedan od ciljeva ovog istraživanja bio je ispitati stavove učitelja prema darovitim i njihovu obrazovanju. Istraživanja iz različitih zemalja u kojima se koristio isti upitnik i Gagnéova interpretacija vrijednosti rezultata navode pozitivan opći stav učitelja prema darovitim u SAD-u (Drain, 2008; McCoach i Siegle, 2007), u Australiji (Chessman, 2010; Lassig, 2009; Lewis i Milton, 2005), u Novom Zelandu (Watts, 2006), u Švedskoj (Allodi i Rydelius, 2008), u Saudijskoj Arabiji (Al Makhadid, 2012). Prema toj interpretaciji, opći stav hrvatskih učitelja prema darovitim u ovom je istraživanju na donjoj granici pozitivnog. Međutim, učitelji imaju pozitivan stav zapravo prema samo jednom faktoru, a za preostala dva izražavaju neutralne stavove, što više upućuje na općenito neutralan stav prema darovitim. Odnosno, učitelji prepoznaju potrebe, podršku i društvenu vrijednost darovitih, no nemaju jasno izražen stav prema pristupima rada s darovitim, kao ni prema posljedicama posebne potpore darovitih. Rezultati ovog istraživanja ukazuju na pozitivnu povezanost stava o darovitim učenicima, akceleraciji i grupiranju, a u zemljama s razvijenim programima u školama za darovite učitelji iskazuju jasno izražen pozitivan opći stav prema darovitim, no uglavnom negativan prema akceleraciji i grupiranju (Allodi i Rydelius, 2008; Chessman, 2010; Lassig, 2009; Troxclair, 2013; Watts, 2006). Prema procjenama stranih i hrvatskih stručnjaka Hrvatska u odgojno-obrazovnoj djelatnosti kasni četrdesetak godina u organiziraju sustava skrbi za darovite (Galbraith, 1992; prema Strugar, 2002). Učitelji u ovom istraživanju procjenjuju kako su zainteresirani za teme

iz područja, ali da su malo informirani. Tek njih 3,6% izjavljuje kako je učenik za kojeg su prepostavili da je darovit prošao i neku vrstu identifikacije za utvrđivanje stupnja i vrste darovitosti. Na temelju tih procjena i dobivenih rezultata čini se kako učitelji nemaju iskustva sustavnog organiziranog rada s darovitim pa onda ni jasno izražene stavove prema tim pristupima radu. Zbog navedenih razloga opravdano je potvrditi polaznu pretpostavku o nejasno izraženim pozitivnim ili negativnim stavovima učitelja o darovitim i njihovu obrazovanju.

Budući da se jako malen postotak učitelja u svom radu susreo s identificiranim darovitim učenikom, ispitali smo utjecaj drugih varijabli poput godina radnog staža, stupnja obrazovanja i mjesta rada na interes, informiranost i stav o darovitim i njihovu obrazovanju.

Rezultati istraživanja stavova prema darovitim i dobi ispitanika su nedosljedni. U Gagnéovoj analizi (1994a) 12 istraživanja u njih 5 se dob pokazala statistički značajnom. U ovom istraživanju učitelji s najmanje radnog iskustva (od 0 do 4 god.) imaju pozitivnije stavove prema potrebama, podršci i društvenoj vrijednosti darovitih te izražavaju veće zanimanje za teme iz područja darovitosti u odnosu na učitelje s najvećim radnim iskustvom (od 30 do 44 god.). Budući da su staž i završen stupanj obrazovanja visoko negativno korelirani jer se na većini učiteljskih studija u Hrvatskoj mijenjao program iz dvogodišnjeg u četverogodišnji i u skladu s Bolonjskom deklaracijom u petogodišnji sveučilišni studij, u skladu s tim su utvrđene razlike i s obzirom na stupanj obrazovanja. Učitelji sa završenim petogodišnjim učiteljskim studijem imaju pozitivniji stav prema potrebama, podršci i društvenoj vrijednosti darovitih te izražavaju veće zanimanje za teme iz područja darovitosti u odnosu na učitelje s dvogodišnjim učiteljskim obrazovanjem. Razlozi za to mogu biti višestruki. S jedne strane početni entuzijazam i spremnost na promjene i inovacije u radu kod mladih ljudi. S druge strane može biti realnost iskusnijih učitelja o radu škole ili smanjena osjetljivost na posebne potrebe darovitih. Tomlinson i suradnici (2004) su u svojem istraživanju utvrdili kako učitelji koji imaju veće iskustvo (duži radni staž) najviše vole raditi s učenicima prosječnih sposobnosti, manje s darovitim, a najmanje s učenicima koji imaju teškoća. Iako se u službenim dokumentima (Nacionalni okvirni kurikulum, 2010; Nastavni plan i program za osnovnu školu, 2006) ističe rad s učenicima s posebnim potrebama kao jedan od ciljeva suvremene hrvatske škole, u praksi se pokazalo da se veća pozornost posvećuje učenicima s teškoćama za koje učitelji trebaju izraditi individualni plan rada, voditi evidenciju o napredovanju učenika s teškoćama te imaju dodatni organizirani oblik nastave s defektologom/psihologom/pedagogom škole. Vođenje sustavne dokumentacije o darovitim učenicima i službeno prilagođavanje programa rada predviđeno je *Pravilnikom o osnovnoškolskom odgoju i obrazovanju darovitih učenika* (NN 34/1991), no rezultati pokazuju da daroviti učenici nisu ni identificirani, što je preduvjet za izradu individualiziranog kurikula.

Godine radnog staža i stupanj obrazovanja pokazali su se značajnima i u razini informiranosti o području darovitosti putem formalnog, neformalnog i informalnog

obrazovanja. Rezultati pokazuju da su učitelji s petogodišnjim obrazovanjem i učitelji s do 16 godina radnog staža više kroz studij obrađivali teme o darovitosti od učitelja s više radnog iskustva. Učitelji s radnim stažem dužim od 16 god. više se individualno usavršavaju o darovitosti od učitelja početnika (0 do 4 god.). Odnosno, učitelji s dvogodišnjim obrazovanjem više se informiraju o darovitosti putem stručnih i individualnih usavršavanja od učitelja s četverogodišnjim i petogodišnjim obrazovanjem. No oni su u svom dužem radnom vijeku zasigurno imali više prilika za stručna i individualna usavršavanja u odnosu na svoje mlađe kolege koji su na početku radnog vijeka. Međutim, gotovo je neusporediva edukacija iz područja darovitosti u nas i u razvijenim zemljama. Hrvatski se učitelji nakon završenog formalnog obrazovanja mogu stručno usavršavati u području darovitosti na stručnim skupovima (predavanja) i individualno prateći literaturu, a u razvijenim zemljama (npr. Australija, Nizozemska, Njemačka, SAD) postoje dodatne višestredne edukacije i/ili edukacije koje traju jedan i više semestara na fakultetima. Istraživanja u Hrvatskoj su pokazala da učitelji iskazuju potrebu za dodatnim usavršavanjem u području darovitosti, što može upućivati na zaključak da smatraju kako im nedostaju potrebna znanja i kompetencije iz tog područja (Pavin, Vizek Vidović i Miljević Riđički, 2006; Pleić, 2010; Roeders, 2013; Vojnović, 2008).

Treća ispitivana razlika u stavu, interesu i informiranosti o darovitim i njihovu obrazovanju odnosi se na mjesto rada. Rezultati su pokazali razlike između učitelja koji rade u gradskim i seoskim školama, pri čemu učitelji koji rade na selu izražavaju veću zabrinutost da bi poseban rad i odnos prema darovitim mogao odvesti u elitizam. Pretpostavlja se da se u seoskim školama više njeguju kolektivističke vrijednosti i usmjereno na podršku prosječnim učenicima i učenicima s teškoćama. Važno je napomenuti da navedena razlika nije utvrđena u faktoru prepoznavanja potreba, podrške i vrijednosti darovitih, što nam govori o tome da ih podjednako prepoznaju kao i gradski učitelji, ali se više protive njihovu isticanju i posebnom tretmanu koji zahtijeva dodatno kadrovsko i finansijsko ulaganje u učenike koji će najvjerojatnije po završetku obrazovanja napustiti selo. Također se pokazalo da se učitelji seoskih škola više samostalno usavršavaju od gradskih učitelja. Dobiveni rezultat nije u skladu s istraživanjem koje je provela Posavec (2008), a u kojem se pokazalo da ne postoje razlike u stavovima učitelja s obzirom na to rade li u gradskoj ili seoskoj školi, što otvara neka nova pitanja koja valja dodatno istražiti.

Drugi problem ovog istraživanja bio je utvrditi odnos stava o darovitim i razine zainteresiranosti i informiranosti o darovitosti (preko studija, stručnih skupova i individualnog usavršavanja). Rezultati istraživanja o povezanosti stavova prema darovitim i dodatnih oblika usavršavanja učitelja su različiti. U nekim su utvrđene razlike između učitelja koji su završili ili završavaju neki dodatni oblik edukacije iz tog područja (Gross, 1994; Gross, 1997), a u nekim se izvještava o tome da nema razlika između tih grupa učitelja (Allodi i Rydelius, 2008; McCoach i Siegle, 2007; Lewis i Milton, 2005). Prepostavilo se da viša razina zainteresiranosti i informiranosti

o darovitosti može predvidjeti pozitivnost stavova prema darovitim učenicima. S tim ciljem provedene su tri hijerarhijske regresijske analize, za svaki faktor stava kao kriterijske varijable, kontroliranim utjecajem sociodemografskih obilježja prvim korakom i zainteresiranosti i različitim oblicima informiranosti kao prediktorskih varijabli.

Suprotno očekivanjima rezultati su pokazali da informiranost o darovitosti tijekom studija i prekok stručnih usavršavanja nisu značajni prediktori nijednog faktora stava o darovitim i njihovu obrazovanju. Teme koje su učitelji procijenili kao najviše obrađivane tijekom studija, stručnih skupova i u individualnom usavršavanju jesu *opće informacije o darovitosti i osobine darovitih učenika, a teme koje ih najviše zanimaju jesu načini rada s darovitim učenicima u sklopu redovite nastave i načini identifikacije darovitih učenika*. Taj pokazatelj sugerira zaključak da im je dostupno samo deklaratивno znanje, a ono što im nedostaje jest iskustveno učenje i stjecanje proceduralnog znanja. To potvrđuju i rezultati longitudinalne studije praćenja darovitih učenika u Hrvatskoj koja je pokazala da učitelji imaju neujednačene kriterije prilikom nominiranja darovitih jer u svom obrazovanju stječu samo opća i nedostatna znanja za rad s darovitim učenicima (Lovretić, 2001). Na tom su tragu i rezultati na faktoru akceleracije i grupiranja prema sposobnostima koji nije značajno povezan ni s jednom od ispitanih varijabli, osim s preostala dva faktora stava o darovitim, pa nisu utvrđene značajne razlike s obzirom na ispitana sociodemografska obilježja. Uzmemo li u obzir rezultate koji su pokazali da učitelji imaju neutralne stavove prema tim pristupima u radu s darovitim, moguće je da nedovoljna informiranost i nedovoljno vlastito iskustvo dovode do nemogućnosti zauzimanja stava o navedenoj problematici. U prilog toj prepostavci govori rezultat dobiven u ovom istraživanju da je za temu akceleracije iskazano najmanje zanimanje i najmanja razina informiranosti. Od ispitanih učitelja njih 39% uopće nije obrađivalo temu akceleracije tijekom studija, 43% ni tijekom stručnih skupova, a 32% ni putem individualnog usavršavanja. Svega je 66% učitelja iskazalo zanimanje za temu akceleracije, a usporedbe radi njih 86% zainteresirano je za načine rada s darovitim učenicima u sklopu redovite nastave.

Regresijskom jednadžbom objašnjeno je 17% stava o potrebama, podršci i društvenoj vrijednosti darovitih. Zanimljiv nalaz je da se osim zainteresiranosti kao značajnog pozitivnog prediktora, značajnim prediktorom pokazalo i individualno usavršavanje, ali u negativnom smjeru. Dakle, pozitivan stav o potrebama, podršci i društvenoj vrijednosti darovitih možemo objasniti većim interesom za područje darovitosti i manjom informiranosti putem individualnog usavršavanja. Budući da korelacijskim istraživanjima ne možemo objasniti uzročno-posljedičnu vezu, ne možemo tvrditi da će individualno usavršavanje smanjiti osjetljivost na potrebe, podršku i vrijednost darovitih, kao ni da će pozitivan stav smanjiti želju za individualnim usavršavanjem o darovitosti. Moguće objašnjenje je primjerice da su učitelji koji su se više individualno usavršavali ujedno i svjesniji povećanog vlastitog angažmana i odgovornosti koju sa sobom nosi rad s darovitim, kao i nepostojanja adekvatne stručne potpore škole.

Ako su i bili osjetljivi na potrebe darovitih i bili im spremni pružati podršku, a s druge su se strane susreli s neadekvatnom stručnom i finansijskom potporom škole, uslijed stvorene napetosti zbog dviju nekonzistentnih istodobnih spoznaja, odnosno kognitivne disonance (Festinger, 1957), promijenili su stav kad već nisu mogli ponašanje. S druge strane, možda oni u svom radu već ulažu dodatni angažman prema darovitim učenicima pa ne smatraju da bi se trebali više angažirati.

Oko 10% stava prema elitizmu darovitih može se predvidjeti navedenom regresijskom jednadžbom, s time da su se značajnima pokazali već spomenuto mjesto rada i zainteresiranost. Očekivano oni koji se brinu za to da bi poseban tretman darovitih mogao dovesti do elitizma, pokazuju i manju zainteresiranost za teme iz područja darovitosti.

Praktična vrijednost ovog istraživanja je osim u tome što daje opis stanja o zainteresiranosti i informiranosti učitelja o području darovitosti i najzad o njihovim stavovima, daje i neke organizacijske smjernice vezane za teme i načine rada na stručnim usavršavanjima, kao i apel o zainteresiranosti učitelja, pogotovo početnika s jedne strane i mogućnosti rada s darovitim u praksi s druge strane.

Ograničenja ovog istraživanja jesu u prigodnom uzorku učitelja primarnog obrazovanja iz samo jedne županije zbog čega se, kako smo i vidjeli iz usporedbe s rezultatima iz druge županije (Posavec, 2008), dobiveni podaci ne mogu generalizirati na cjelokupnu populaciju učitelja u Hrvatskoj.

Drugo ograničenje istraživanja proizlazi iz prijevoda mjernog instrumenta. Naime, dobra psihometrijska obilježja koje tvrdnje imaju u svom izvornom obliku mogu se prijevodom smanjiti zbog kulturnih i kontekstualnih razlika, ali i pogreški u prijevodu. Gagné i Nadeauov (1991) instrument nastao je na drugom jeziku, u drugom obrazovnom kontekstu i u drugačijim uvjetima rada učitelja od onih u Hrvatskoj pa treba uzeti u obzir utjecaj navedenih čimbenika u interpretaciji navedenih tvrdnji.

## Zaključak

Provedeno istraživanje pokazuje da ispitani učitelji prepoznaju potrebe darovitih učenika, da su svjesni potrebne podrške i društvene vrijednosti darovitih, ali da nemaju jasno izražene stavove prema akceleraciji i grupiranju prema sposobnostima. Među učiteljima postoji zainteresiranost, no ne i dovoljna informiranost o području darovitosti, a prisutan je i nedostatak iskustvenog rada s posebnim pristupima u radu s darovitim. Darovit učenik u razrednoj nastavi možda će imati učitelja koji ima pozitivne stavove prema darovitim, ali neće imati nastavu prilagođenu svojim potrebama. Iako je prema *Pravilniku o osnovnoškolskom odgoju i obrazovanju darovitih učenika* (NN 34/1991) predviđen postupak identifikacije te različiti oblici rada s darovitim, škole koje nemaju zaposlenog psihologa otežano mogu provesti sve navedene zakonske odredbe, što u konačnici otežava rad učitelja zbog nedostatne stručne podrške. Rad s darovitim samo se deklarativno ističe kao jedan od prioriteta hrvatskog školstva (Nacionalni okvirni kurikulum, 2010; Nastavni plan i program

za osnovnu školu, 2006) dok učitelji, ključne osobe za prilagodbu nastave stvarnim potrebama darovitih, ukazuju na potrebu dodatne edukacije u tom području. Upravo ta činjenica treba biti polazište u organizaciji stručnih usavršavanja učitelja i obrazovanja budućih učitelja koje će ići u skladu s novim spoznajama, s ciljem unapređivanja znanja i kompetencija učitelja u području darovitosti. No iako je učitelj važna osoba u otkrivanju i razvoju darovitosti, ne smijemo zanemariti neophodnu podršku cjelokupnog odgojno-obrazovnog sustava na nacionalnoj razini.