

Turkish teachers' views on acceleration

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Abstract

Acceleration provides positive outcomes methodically yet; people still have wrong beliefs about it. Thus, it is considered to be an important aim to reveal the views of teachers about acceleration in Turkey, which have limited opportunities for academic acceleration in educational settings. In order to understand teachers' views on acceleration an online survey was developed. The survey consisted from four parts including demographic information, opinion questions, knowledge self-assessment about types of acceleration and a 22-item questionnaire about views on acceleration. The study group consisted from 122 teachers and they were from various regions in Turkey. Data indicated there were no differences in attitudes among teachers from different gender or years of professional experience. Moreover, it was found that teacher' supported the implementation of acceleration in gifted education. Teachers' who had experiences with accelerated learners in their professional life were more knowledgeable and hold more positive beliefs towards acceleration. In accordance with the related literature, the teachers were more concerned about social issues and least concerned about academic issues related to acceleration. These results highlighted the importance of teacher training regarding gifted learners and gifted education.

Keywords: Acceleration, teachers' attitudes, gifted education, gifted and talented

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1. Introduction

Gifted and talented learners can be different from others in terms of cognitive, affective and developmental characteristics and these differences require modifications in their educational programs. Advance learning and precocious intellectual development are distinctive features of gifted learners (Lubinski & Benbow, 2000; VanTassel-Baska, 2010). These students acquire knowledge and skills faster than their age mates (Frasier & Passow, 1984), they have a complex understanding of things (VanTassel-Baska, 2010) and they are in need of intellectual challenge to fulfil their potential (Bleske-Rechek, Lubinski & Benbow, 2004). In an extensive research review Rogers (2007) identified five major reconsiderations for the education of gifted and talented. Rogers argued that gifted and talented learners need daily challenge in their specific areas of talent, opportunities should be provided so that gifted learners work independently in their areas of talent, gifted learners should be given chance to socialize and learn with like-ability peers, various forms of subject-based and grade-based acceleration should be provided and instruction should be differentiated in accordance with learner needs (i.e. pace, amount of review, content).

Since the mid-20th century when acceleration was defined as an educational intervention based on progress through an educational program at rates faster or at ages younger than typical (Pressey, 1949), it is considered as one of the most effective and applicable interventions in gifted education (Colangelo, Assouline & Gross, 2004). Despite extensive reviews that fail to document harm from academic acceleration (see Kulik, 2004; Steenbergen-Hu, Makel, & Olszewski-Kubilius, 2016; Steenbergen-Hu, & Moon, 2011; Wells, Lohman & Marron, 2009), many educators or families still reluctant to employ such educational techniques or hold wrong beliefs about it.

Acceleration is the best-researched and cost-effective, yet most under-utilized intervention for gifted students. The myths about acceleration can be accounted as the underlying reason for this. For example, *acceleration is for wealthy* is a common myth but in reality, it is known that the concept of ability is independent from race, gender, culture or economic status. *Acceleration violates educational equity* or *acceleration pushes children before they are ready academically or socially/emotionally* are other widely believed myths. Equity should not be confused with sameness, in fact, forcing all the students go through educational content and steps at the same time and at the same pace is a violation of equal opportunity. Moreover, in the literature it is clearly stated that acceleration is not forcing student to move fast, it is allowing students to move at an appropriate pace matching their readiness and ability levels (Colangelo, Assouline & Gross, 2004).

Colangelo, Assouline and Gross (2004) examined the reasons that affects the implementation of acceleration and found out that educators' lack of knowledge, contradiction between people's beliefs and research findings, age-based placements in schools and anxiety that acceleration will cause social-emotional problems and gaps in knowledge constitute the major ones. As can be guessed, educators who are not knowledgeable about acceleration will fail to implement it effectively in teaching-learning process. People tend to favor their beliefs when beliefs and research findings contradict.

Over the decades one of the major discussions about acceleration for gifted learners were the possible negative effects of acceleration on social skills and the risk that it may cause gaps in knowledge. Some parents and educators were concerned about accelerated gifted learners' socialization and they feared that they would miss important experiences in life. On the contrary, the research tells us that (see Colangelo, Assouline & Gross, 2004; Kent, 1992; Kulik, 2004, Steenbergen-Hu, Makel, & Olszewski-Kubilius, 2016; Steenbergen-Hu, & Moon, 2011) the impact of acceleration on social development is small and mostly in a positive direction and as gifted learners process information faster than their age peers they do not have gaps in content knowledge. Acceleration is not harmful for social development of gifted learners in fact, gifted learners highly benefit from it academically.

Moreover, Rimm and Lovance (1992) documented that early entrance to kindergarten, skipping a grade in the beginning of elementary school or single subject acceleration may prevent the underachievement in gifted students. In another study, it was shown that early entrants representation rate in graduate schools were higher than the like-ability, nonaccelerated peers (Sethna, Wickstrum, Boothe & Stanley, 2001). Advanced placement (AP) classes resulted in academic gains, students who took AP courses performed better and reported higher satisfaction with school compared to their intellectually matched peers (Bleske-Rechek, Lubinski, & Benbow, 2004).

Skipping a grade is considered to be the most common and known type of acceleration yet acceleration can be accomplished in at least 20 different ways (Southern & Jones, 2015; see Table 1). Acceleration is a delivery system and curriculum intervention at the same time (Assouline, Lupkowski-Shoplik, & Colangelo, 2017). The various types of acceleration have the potential to meet the needs of highly able children from different profiles. For example, nine of them mostly focuses on the rate at which the new subject matter is introduced and considered to be more content based, seven of them is more about moving students into settings with older ones. Although acceleration is one of the utmost effective intervention in gifted and talented education, there is no single, perfect acceleration type that can fit every single gifted learner. Different forms of acceleration work best when they are matched with unique needs of the gifted learners.

Table 1. Forms of acceleration (Southern & Jones, 2015)

Forms of Grade-Skipping
a. Early admission to kindergarten
b. Early admission to first grade
c. Grade-skipping
d. Acceleration in college
e. Early graduation from high school or college
f. Early entrance into middle school, high school or college
g. Accelerated/honors high school or residential high school on a college campus

Forms of Subject Acceleration
h. Subject-matter acceleration/partial acceleration
i. Advanced placement
j. Continuous progress
k. Self-paced instruction
l. Combined classes
m. Telescoping curriculum
n. Distance learning courses
o. Concurrent/dual enrolment
p. Credit by examination

Less Accelerative Opportunities
q. International Baccalaureate program
r. Extracurricular programs
s. Mentoring
t. Curriculum compacting (the time saved by compacting the curriculum is used to provide enrichment).

If acceleration is going to be implemented in a student's academic life, this decision mostly lies on the perspective of the teacher. Southern, Jones and Fiscus (1989), showed that teachers thought that social and emotional issues were more ambiguous compared to academic ones. In another study Jones and Southern (1992) found that attitudes towards acceleration varied by groups, for example rural school districts were less likely to implement acceleration than urban ones (Olthouse, 2015). Moreover, studies showed that experienced teachers are not the only ones who hold suspicions about the effects of acceleration, surveyed preservice teachers hold the belief that grade-skipping would have a negative effect on students' social skills too (Bain, Bliss, Choate & Brown, 2007). Hooegeveen, van Hell, and Verhoven's (2005) study showed similar results but there was an important distinctive point, they found that teachers who received information about acceleration expressed more positive attitudes than those who had not. Therefore, it can be seen that teachers' level of knowledge is a crucial point affecting their views and beliefs on acceleration. Guided by this results, current study aimed to investigate Turkish teachers' self-assessed knowledge levels about types of acceleration, their attitudes toward acceleration and accelerated students and the extent to which these attitudes are modulated by demographic variables like; teachers' gender and years of experience.

2. Methodology

This research is about understanding teachers' views on acceleration and embraces an observational approach. The participants of the study were recruited via web-based tools like mails or social media invitations from different cities in the country.

2.1. Participants

The study applied convenience sampling in data collection and the potential participants were approached through web-based tools. The study group consisted from 122 teachers (66.4% female; 33.6% male) and they were from various regions in Turkey. Participants' experience in teaching profession was heavily accumulated in 0-5 years, 41.8% of teachers were in this group. 25.4% had 6-10, 12.3% had 11-15, 9.8% had 16-20 and 10.6% had 21 years or more experience in teaching. Majority of the teachers (68.9%) were working in public schools, whereas 32% were in private ones. Furthermore, 34.4% of the teachers' declared that they worked with gifted learners at one point in their professional life and the rest (65.6%) not.

2.2. Data collection instruments

Data of the research derived from an online survey, developed in accordance with the study' aim. The online survey comprised from four sections. In the first section, demographic information questions regarding gender, years of experience in teaching profession, school type and experience with gifted learners were included. In the second one, participants were asked to answer five opinion questions about acceleration ("Do you think that a different approach/method should be implemented in gifted student' education?", "Do you support acceleration in gifted students' education?", "Have you ever teach a student who was accelerated in his/her educational program?", "If your answer is 'yes' to the previous question, how would you evaluate your experience working with an accelerated student?", "Have you ever nominated one of your students for acceleration?"). Section three included a knowledge self-assessment about types of acceleration (20 types of acceleration (e.g. grade skipping, compacting) were presented and the teachers assessed their knowledge about those techniques in a three scale form namely; 'I have no information', 'I have some information', 'I have enough information'). Finally, in the fourth section, participants were asked to answer a 22-item survey about views on acceleration. The survey developed in Hoogeveen, van Hell and Verhoeven's (2005) study was adopted for present research and items about social, emotional, physical and academic (achievement, motivation) effects of acceleration were included. The original survey comprised from 18 items, 16 of them were adopted for

the present study and 6 new items were written. Before data collection, experts in gifted education field were consulted for content validity of the survey. In the present study, the Cronbach alpha internal consistency of the survey was calculated as .79.

2.3. Procedure

Teachers working in K-12 educational institutions across Turkey were approached via web-based invitations for participation in the research. The study was presented as a research of what teachers think about acceleration and their knowledge about it. Teachers, who were interested in this topic and choose to participate, followed a link to an online survey and filled the survey. Participants spend approximately half an hour to answer the questions in the survey.

2.4. Data analysis

Data was analyzed using the Statistical Package for the Social Sciences (SPSS) version 25.0 for Mac. For all analysis, $\alpha = 0.05$ statistical threshold was used. Descriptive statistics were performed on the data. The normality assumption of the data was tested by kurtosis and skewness coefficients. All the coefficients were in -1.5 and +1.5 interval, which ensures that the data distributed normally (Tabachnick & Fidell, 2013). In order to examine gender differences independent t-test was performed. To examine the group differences regarding experience and self-evaluations one-way ANOVA and to analyze relation between self-assessed knowledge levels and views on acceleration survey, correlational analyses was performed.

3. Findings

In the present study we examined teachers' opinions about acceleration and accelerated students in Turkey. The results of the survey study revealed that most teachers think a special approach for gifted students is (95 %) advisable. When they were asked about their opinions on acceleration, the teachers considered it (59.8%) as a useful option and only 6.6% opposed implementation of acceleration. Of the teachers who reported to have experience with accelerated students (26.2%), 68.5% had positive or very positive experiences, 6% had negative or very negative experiences, whereas 26% had mixed experiences. Furthermore, it was found that 14.8% of the teachers' nominated their students for acceleration, whereas 85.2% did not nominated any. In terms of demographic variables, the results of opinion questions, self-assessed knowledge levels and views on acceleration survey did not differed according to gender and experience in the profession in terms of years. However, it was found that having experience with the gifted learners had significant effects. The teachers' who worked in educational institutions that serve gifted learners (Science and Arts Centres, source rooms, after school enrichment programs) are more knowledgeable about acceleration types and values the merits of acceleration especially in terms of its academic effects. In the academic part of the views on acceleration survey, teachers who worked with gifted students scored significantly higher ($M=22.59$, $SD=3.74$) than the ones who did not ($M=20.11$ $SD=3.49$); $t(120)$, $p = .01$. The results were same for self-assessed knowledge about types of acceleration. There was a significant difference for experienced group ($M=22.90$, $SD=12.04$) when compared to non-experienced one ($M=14.42$ $SD=9.40$); $t(120)$, $p = .00$.

In the third section of the survey, it was aimed to understand the self-assessed knowledge levels of teachers about types of acceleration. Twenty types of acceleration that is defined in the related literature were presented and the participants evaluated themselves in terms of their familiarity regarding those techniques. The descriptive results are presented below.

Table 2. Descriptive results of the self-assessed knowledge on types of acceleration

Types of acceleration	Not enough information		Some information		Enough information	
	f	%	f	%	f	%
Early entrance to kindergarten	47	38.5	50	41	25	20.5
Early entrance to primary school	31	25.4	58	47.5	33	27
Grade skipping	33	27	51	41.8	38	31.1
Continuous advancement	58	47.5	31	25.4	33	27
Individually paced instruction	36	29.5	50	41	36	29.5
Content based acceleration	57	46.7	39	32	26	21.3
Combined classes	39	32	49	40.2	34	27.9
Curriculum compacting	53	43.4	34	27.9	35	28.7
Telescoping	53	43.4	42	34.4	27	22.1
Mentorship	58	47.5	34	27.9	30	24.6
Extracurricular programs	51	41.8	37	30.3	34	27.9
Online programs	39	32	42	34.4	41	33.6
Dual enrolment	78	63.9	23	18.9	21	17.2
Advance placement	73	59.8	31	25.4	18	14.8
IB programs	73	59.8	31	25.4	18	14.8
Credit by exam	39	32	43	35.2	40	32.8
Early entrance to college	42	34.4	50	41	30	24.6
Acceleration in college	34	27.9	41	33.6	47	38.5
Early graduation	32	26.2	48	39.3	42	34.4
Specialized high schools	38	31.1	52	42.6	32	26.2

Descriptive data showed that teachers possess limited knowledge on different types of acceleration. For eleven acceleration types, at least one third of the teachers claimed that they do not have enough information about it. Especially for dual enrolment, advanced placement and IB programs more than 50% of the teachers reported that they do not have enough information. The results showed that teachers were most informed about acceleration in college (38.5%) whereas they were least informed about dual enrolment (63.9%). It is also important to underline that, not even one acceleration type has a score exceeding 40% in the “I have enough information” column.

Table 3. Descriptive results of views on acceleration survey

	Strongly do not agree (1)		(2)		(3)		(4)		Strongly agree (5)	
	f	%	f	%	f	%	f	%	f	%
1. Acceleration has positive effects on social development.	6	4.9	23	18.9	39	32	36	29.5	18	14.8
2. Acceleration is emotionally harmful for accelerated students.	18	14.8	52	42.6	32	26.2	16	13.1	4	3.3
3. Early entrance to school or grade skipping may be harmful as the child will be physically smaller compared to classmates.	17	13.9	44	36.1	30	24.6	21	17.2	10	8.2
4. Acceleration increases students' academic motivation.	1	.8	21	17.2	29	23.8	44	36.1	27	22.1
5. Acceleration have positive effects on social adjustment.	6	4.9	31	25.4	42	34.4	36	29.5	7	5.7
6. Accelerated students will be happier after acceleration.	6	4.9	25	20.5	38	31.1	37	30.3	16	13.1
7. As accelerated students are smaller (age/physical) they would be less independent than expected.	11	9	40	32.8	34	27.9	31	25.4	6	4.9
8. Acceleration prevents mental laziness.	5	4.1	18	14.8	17	13.9	52	42.6	30	24.6
9. Accelerated students are more successful in their social relations.	6	4.9	34	27.9	39	32	37	30.3	6	4.9
10. Accelerated students exhibit behaviour problems more.	25	20.5	48	39.3	31	25.4	14	11.5	4	3.3
11. As accelerated students are smaller compared to others, they can face bullying.	8	6.6	35	28.7	40	32.8	33	27	6	4.9
12. Acceleration have positive effects on academic achievement.	5	4.1	17	13.9	33	27	50	41	17	13.9
13. Older classmates may not accept the accelerated student.	17	13.9	39	32	38	31.1	21	17.2	7	5.7
14. Accelerated students may feel isolated.	23	18.9	43	35.2	28	23	26	21.3	2	1.6

15. In every class there are students who have different physical characteristics. Because of that, physical characteristics should not be the main criteria when deciding to accelerate.	5	4.1	30	24.6	21	17.2	35	28.7	31	25.4
16. Acceleration is not a solution for underachievement.	8	6.6	31	25.4	41	33.6	34	27.9	8	6.6
17. Accelerated students may face problems in puberty as their classmates are developmentally ahead.	9	7.4	34	27.9	47	38.5	27	22.1	5	4.1
18. Accelerated students do not face more problems than the non-accelerated ones.	7	5.7	32	26.2	47	38.5	28	23	8	6.6
19. Acceleration have negative effects on academic self-esteem.	40	32.8	39	32	30	24.6	28	23	8	6.6
20. Accelerated students may have hard time in making friends in new educational contexts.	16	13.1	41	33.6	33	27	27	22.1	5	4.1
21. For an accelerated student, it is hard to carry the label "the smallest and the wisest" in the classroom.	13	10.7	28	23	41	33.6	30	24.6	10	8.2
22. Accelerated students may have gaps in domains of knowledge.	25	20.5	32	26.2	33	27	26	21.3	6	4.9

The expressions included in the views on acceleration survey were related to social, emotional, physical or academic effects of acceleration. The results showed that an average of 30.56% of teachers thought that acceleration causes social problems (1,5,9,13,17,20); 24.03% of teachers thought that acceleration causes emotional problems (2,6,10,14,18,21), 29.07% of teachers believed that children can experience problems in terms of physical aspect (3,7,11,15) and finally 24.2% supported the idea that acceleration may have potential harm on achievement and motivation (4,8,12,16,19,22).

Teachers' answers varied for the second opinion question. 59.8% of the teachers' said that acceleration should be implemented in gifted learners' educational program, whereas 6.6% opposed acceleration and 36.1% supported it partially. When these three groups scores in self-assessments and views on acceleration survey investigated, it was found that there were significant differences for views on acceleration. No differences were observed for knowledge self-assessments on types of acceleration. Results revealed that, there was a statistically significant difference between groups determined by ANOVA for social [$F(2,119) = 5.776, p=.004$], emotional [$F(2,119) = 4.499, p=.013$], academic [$F(2,119) = 5.731, p=.004$] and total scores of acceleration survey [$F(2,119) = 5.959, p=.003$]. Tukey-HSD post-hoc results showed that teachers who did not support the acceleration of gifted learners get lower scores than the ones who said they partially support and who supported acceleration for gifted learners [social;

(M=15.37; 19.12; 19.52), SD=(3.88; 2.89; 3.40); emotional (M=16.62; 19.78; 20.34), SD=(3.62; 3.30; 3.34); academic (M=18.5; 19.9; 21.84), (SD=5.15; 3.02; 3.74) and total (M=62.5; 71.75; 74.63), SD (10.95; 9.24; 9.92)].

Third opinion question asked teachers if they ever taught an accelerated student, only 26.2% answered this affirmatively and 69.7% said that they did not had such an experience. The teachers who said that they taught accelerated students (M=23.09, SD=11.99) scored significantly higher in the self-assessments about types of acceleration than the ones who did not work with them (M=15.57 SD=10.26); $t(120)$, $p = .003$. No difference observed in terms of views on acceleration survey. Of the teachers who taught accelerated students 68.5% of them evaluated their experiences as very positive or positive whereas 6.8% of them said they had negative or very negative experiences, 25.7% reported their experiences to be neither too negative or too positive. To examine those groups' scores on self-assessment and views on acceleration survey one-way ANOVA was applied. There was a statistically significant difference between groups determined by ANOVA for social [$F(2,33) = 5.084$, $p = .012$], emotional [$F(2,33) = 5.221$, $p = .011$], and total scores of acceleration survey [$F(2,33) = 5.352$, $p = .01$]. Post-hoc comparison using the Tukey HSD test indicated that the mean score for positive experience group was significantly higher than group negative or neither negative nor positive in all three conditions mentioned above. [social; (M=17.09; 21.54), SD=(2,34; 2.76); emotional (M=17.45; 22.18), SD=(3.04; 2.96) and total (M=66.55; 80.55), SD (7.35; 8.47)]. No significant differences were observed for self-assessment of knowledge on types of acceleration scores.

For the last opinion question, teachers were asked to answer if they ever nominated one of their students for acceleration, whereas 85.2% did not nominated any students 14.8% did. First group' scores were statistically significant for the views on acceleration survey whereas significant difference was not observed for self-assessments on types of acceleration [(M=20.64, SD=3.80); (M=22.83 SD=2.95); $t(120)$, $p = .01$].

Table 4. Pearson correlation matrix for self-assessed knowledge levels on types of acceleration and views on acceleration survey

	Social	Emotional	Physical	Academic	Self-assessment
Emotional	.785**				
Physical	.450**	.586**			
Academic	.612**	.585**	.179**		
Self-assessment	.195*	.239**	.075	.385**	
Views on acc.	.892**	.915**	.630**	.777**	.292**

** $r = .01$, * $r = .05$

The results of the Pearson correlation matrix for self-assessed knowledge levels and views on acceleration survey revealed that scores on social, emotional, physical and academic effects of acceleration all produced significant correlations with each other ($p = .01$). Furthermore, teachers' self-assessment of their knowledge levels about types of acceleration had significant correlations with social ($r = .195$, $p = .05$), emotional ($r = .239$, $p = .01$), academic ($r = .385$, $p = .01$) and total scores of views on

acceleration survey ($r = .292$, $p = .01$), whereas correlation coefficient for items in physical effects was not significant ($r = .075$, $p > .05$).

4. Discussion and conclusion

In the study reported in this paper, teachers' knowledge levels about acceleration types and their views on the effects of acceleration were examined. The results of the survey study revealed that a vast majority of the teachers think a special approach for gifted students is (95 %) advisable. When they were asked about their opinions on acceleration, the teachers considered it (59.8%) as a useful option and only 6.6% opposed implementation of acceleration. Of the teachers who reported to have experience with accelerated students (26.2%), 68.5% had positive or very positive experiences, 6% had negative or very negative experiences, whereas 26% had mixed experiences. Turkish teachers thus appear to hold a more positive attitude toward acceleration than their Dutch, American, German, Australian and New Zealander colleagues as shown in the studies by Hoogeveen, van Hell, and Verhoeven (2005), Southern and Jones, (1991), Heinbokel (1997), Gross (1992), and Townsend and Patrick (1993) respectively.

These results were promising and doubting at the same time, it was promising because teachers held considerably positive beliefs towards acceleration however, Turkey's educational system's practices about acceleration is limited; which can be interpreted as there is a risk of over interpretation. Moreover, as said before 59.8% of the teachers supported the implementation of acceleration in the education of the gifted learners but still in the views on acceleration survey, approximately a quarter of the teachers believed it has potential harms for gifted learners (averages:30.56% for social, 24.03% for emotional, 29.07% for physical and 24.2% academic components respectively) which can be interpreted as these results should be evaluated cautiously. An alternative explanation; one that has been mentioned in several other studies is that teachers' pre-determined frames of thought affect their expectations on the consequences of acceleration (Brophy & Good, 1974; Jussim, Smith, Madon & Palumbo., 1998; Heinbokel, 1997; Southern et al., 1989).

The concerns that teachers hold about the negative effects of acceleration on academic performance were fairly low. For example, a clear majority (75.2%) believed that acceleration prevents mental laziness, thought that acceleration increases academic motivation (58.2%) and it has positive effects on academic achievement (54.9%). However, they were more uncertain about the relation between acceleration and underachievement. Nearly half of them (42%) did not consider acceleration as an effective intervention for underachievement problem. Although these results were in the same line with the previous findings, the support towards accelerative options were not as high as the ones in Siegle, Wilson, and Little's (2013) study. The teachers in their study group did not believe acceleration would harm students' GPA's (80%) or would cause them miss instruction in key study skills (78%). The results were more mixed about social, emotional and physical (developmental) concerns on acceleration as was in Siegle et al. These mixed results somehow mimic the research evidence about acceleration which regularly reports positive effects for academic development (Assouline et al., 2017; Colangelo, Assouline, & Gross, 2004; Kulik, 2004; Southern & Jones, 1991) and mixed data for students' own perceptions of social and emotional adjustment (Gross, 1994; Hoogeveen, van Hell, & Verhoeven, 2009). One point that requires attention in our data was the teachers' tendency to stay neutral about the items. This may have different interpretations. One is realistic, they are neutral about the expressions regarding the items and the other is, they do not possess enough knowledge or experience about the expressions to take a stand.

Turkish educational system provides limited opportunities on acceleration, for example a student can enter kindergarten or primary school early and grade skipping is allowed but only twice and in the elementary grades. Moreover, content-based acceleration types are seldomly implemented. Interventions like dual enrolment, advanced placement, compacting or telescoping are not implemented in the educational system because teacher' are not trained to apply these strategies successfully. Thus,

teachers' lack of knowledge on content-based acceleration types is understandable. Studies done by Hoogeveen, van Hell, and Verhoeven (2005); Kanevsky (2011), and Siegle, Wilson and Little (2013) showed that teachers were more informed about the types of acceleration and majority of the accelerative options were implemented in those countries.

Another important finding of this study was the effect of teachers' experience with gifted/accelerated learners on their knowledge levels about types of acceleration and views on acceleration. Teachers who support implementation of acceleration in gifted education, had experience with accelerated learners or nominated one of their students for acceleration hold more positive beliefs towards accelerative interventions. The most positive effect was observed for the teachers who worked with accelerated students, those teachers' scores in self-assessed knowledge levels on types of acceleration and views on acceleration survey were significantly higher than the ones who did not had such an experience. This observation was in line with the study done by Southern et al. (1989), in their study they found that opinions about acceleration tended to be more positive as the amount of personal experience with acceleration increases whereas Hoogeveen, van Hell, and Verhoeven (2005) found the opposite in their study. However, Hoogeveen et.al also showed that if teachers' attend information meetings or receive written information on acceleration and giftedness, they tend to express more positive opinions about accelerated students.

The replicated finding that teachers' positioning towards acceleration is highly affected by their experiences with accelerated learners would have important implications for gifted education. This result clearly underlines the importance of in-service teacher training about gifted learners, gifted education and the strategies that can be applied in particular. Targeted teacher training for both professionals and prospective teachers is needed, emphasizing that, acceleration does not lead to academic or social-emotional problems—it even potentially increases a student's self-esteem, motivation, and may prevent the development of mental laziness and underachievement (see Gross, 1992; Rimm & Lovance, 1992; VanTassel-Baska, 1986). If schools have trained teachers in gifted education, they would have the chance to serve gifted learners better and ensure equity for all by meeting the special needs of gifted learners too. Thus, it can be recommended for teacher training programs to offer special courses about gifted learners and gifted education. Furthermore, preparation of informative materials about gifted learners and their education; its distribution over the schools in the country may be very effective as a broad range of audience (i.e. school administrators, teachers, parents) can be reached. Finally, in order to generalize the results of the study it should be replicated with different and broader study groups.

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