#### **International Journal of Education and Practice**

2020 Vol. 8, No. 3, pp. 485-497.
ISSN(e): 2310-3868
ISSN(p): 2311-6897
DOI: 10.18488/journal.61.2020.83.485.497
© 2020 Conscientia Beam. All Rights Reserved.



# ATTITUDES OF EARLY CHILDHOOD AND PRESCHOOL EDUCATION STUDENTS AND TEACHERS TOWARDS INCLUSION OF CHILDREN WITH DOWN SYNDROME



<sup>12</sup>University of Split, Faculty of Humanities and Social Sciences, Split, Croatia.

<sup>1</sup>Email: <u>esunko@ffst.hr</u> Tel. 0035821545585 <sup>2</sup>Email: <u>itomic@ffst.hr</u> Tel. 0038521545562



(+ Corresponding author)

### **Article History**

Received: 13 May 2020 Revised: 19 June 2020 Accepted: 21 July 2020 Published: 27 July 2020

#### **Keywords**

Down syndrome Early childhood Preschool education teacher Experience Inclusion Lifelong education.

This study sought to see the difference in attitudes between early childhood and preschool education teachers and students towards the inclusion of children with Down syndrome in kindergartens. The research included teachers from three kindergartens in the City of Split, as well as early childhood and preschool education students at the Faculty of Humanities and Social Sciences in Split. A questionnaire on the assessment of attitudes towards the inclusion of children with Down syndrome was used. The results are presented through thematic statements grouped by content as follows: personal attitude towards inclusion of children with Down syndrome; inclusion success; knowledge and training; kindergarten and inclusion; and attitudes towards parents of children with Down syndrome. The results showed that there was no statistically significant difference between teachers and students in terms of their attitudes towards inclusion. The results of teachers towards the partial integration of children with Down syndrome are significant. Based on the conducted research, it can be concluded there is a need for additional education in this field due to the lack of content, in formal and non-formal education of teachers, addressing the issue of the inclusion of children with Down syndrome and children with disabilities in general. It is necessary to follow the topic of inclusion in the context of kindergarten through a long-term research, using a more sensitive and comprehensive instrument, and a larger sample. If its sensitivity is increased, this instrument can be recommended to be used for all children with developmental disabilities, not just children with DS.

**ABSTRACT** 

**Contribution/Originality:** This study contributes to the existing literature and research on attitudes towards inclusion of children with Down syndrome. It brings results on the difference in attitudes of teachers with work experience and early childhood and preschool education students on the inclusion of children with Down syndrome in kindergartens.

#### 1. INTRODUCTION

Down syndrome is the most common chromosomopathy characterized by the regular presence of intellectual disabilities at different levels (Bulić, 2013; Engevik, Næss, & Berntsen, 2018; Pranjić, Farago, & Arapović, 2016; World Health Organization, 2017). It is most often accompanied by one or more difficulties of organ systems and language disorders (Choi & Van Riper, 2019; Pranjić et al., 2016). Apart from intellectual disabilities, no organic disability is constantly present in all individuals with Down syndrome and cannot be said to be typical of them (Culić & Culić, 2008; Starbuck, 2011). Similarities in the physical appearance of people with Down syndrome have for a long time influenced the neglect of remarkable differences in their cognitive development and other psychosocial abilities and skills. The difficulties in good expression and abstract thinking about DS individuals

additionally complicate their socialization, which is further supported by recent research findings by Bulić (2013); Pranjić et al. (2016) and Smith, Næss, and Jarrold (2017).

Inclusion opens up a number of positive views of the wider community towards people with Down syndrome (DS). Not all circumstances of inclusion are unambiguous and self-explanatory, but rather open up a whole range of social experiences and relationships that require active and responsible reflection and action. Alfirev (2000) deductively analyzes inclusion, which involves the creation of emotional bonds, learning, socializing and friendship, employment, and is implemented in all educational institutions in the Republic of Croatia.

Children with DS are just as motivated as all other children to explore, learn, and gain independence for life, despite their limitations in cognitive and adaptive functioning and failure to meet developmental and sociocultural standards for personal independence and social responsibility. The learning processes of children with DS, as with all other children, depend on their individual potentials, needs and variations in the environment in which they live. According to Zrilić (2011) children with DS in regular educational institutions become active members of the community, prepare for independent living and achieve a better everyday life.

The social model of rehabilitation opens up a number of positive aspects of the relationship between the wider community and children with DS. However, not all circumstances of inclusion are unambiguous and self-explanatory, but they open up a whole range of social experiences and relationships that require active and responsible reflection on prevailing individual and social attitudes and values.

However due to many positive aspects and views on the children with DS, inclusion is and will be a problem in society because of various factors. There are many researches on the theme but not giving enough information that is qualified to conclude on the specific attitude towards children with DS. For example research results given by Channell et al. (2019) show that several types of maladaptive behaviours that differentiate individuals with DS who screened at high risk for ASD from those considered at low risk for ASD inattention, withdrawal, self injurious, stereotypic, ritualistic, and socially offensive or uncooperative behaviour. Such behaviours may interfere with and undermine learning in the classroom, thus impacting long-term academic and functional outcomes. Findings of Warner, Howlin, Salomone, Moss, and Charman (2017) also suggest that children with DS who meet screening criteria for ASD show similar profiles of communication and repetitive behaviours to those typically described in autism. Children with DS and coexisting neurodevelopmental/neuropsychiatric disorders in addition to intellectual disability and medical disorders constitute a severely disabled group. Based on the results, authors Oxelgren et al. (2017) suggest that screening is implemented for both ASD and ADHD, at the age of 3 to 5 years and early school years respectively, to make adequate interventions possible. Rosser et al. (2018) findings show that cause of the high degree of variability in cognition and behaviour among individuals with DS is still unknown. It can be concluded that there is high acceptance in society for this children (Alsheikh, Almutairy, Alotaibi, Alsaab, & Ahme, 2019) but as we stated earlier there are no exact answers on that question because many researches go both ways with their findings (Delgado, Ariño, Betancor, & Rodríguez-Pérez, 2017).

# 1.1. Inclusion of Children with Disabilities in Kindergartens in the Republic of Croatia

Teachers are the first experts in the education of children of early and preschool age after they leave their family home. Their views on inclusion depend on a value system that can be problematized based on professional competences, i.e. professional knowledge and skills. The basic educational values in kindergartens in the Republic of Croatia include identity, equality, knowledge and responsibility. The values are determined by public education policies through basic documents – the Ministry of Science and Education (2014) and the Ministry of Science and Education (2008) which prescribe the number and roles of the staff, the number of children in groups, and other norms. Višnjić Jevtić (2018) states that different kindergartens have different strategies and implement different models of communication, leadership, distribution of power and problem solving, attitudes and professional status of kindergarten teachers, which is reflected in the kindergarten culture.

Many studies have analyzed and researched the acceptance of inclusive values in the educational system of the Republic of Croatia(Bouillet & Loborec, 2012; Karamatić Brčić, 2013; Kudek Mirošević & Jurčević Lozančić, 2014). A part of these researches has addressed the attitudes of educators towards the inclusion of children with developmental disabilities in general, while other researchers focused on children according to particular types of their difficulties. Older researches on the attitudes of students, future educators, classrooms and subject teachers of different profiles regarding inclusion of children with disabilities showed mostly negative results, whereupon attitudes towards inclusion were largely dependent on the formal education. The analysis of the then curricula employed by many higher education institutions in the Republic of Croatia showed significant differences in the attitudes of students whose study programs had inclusive values from those who mostly were not exposed to such contents (Sunko, 2006). Vantić-Tanjić and Nikolić (2010) find that the success of inclusion depends as well on satisfying certain conditions, such as quality cooperation with parents and professional team, providing assistants, creating an individualized program, etc. Researches show that the attitudes of educators/teachers towards the inclusion of children with disabilities are generally positive with the availability of additional support both in Croatia and worldwide (Acedo, 2008; Alsheikh et al., 2019; Benett, 2012; Bentley, Dance, Morling, Miller, & Wong, 2016; Kiš-Glavaš & Fulgosi-Masnjak, 2002; Kostelnik, Onaga, Rohde, & Whiren, 2004; Kudek Mirošević & Jurčević Lozančić, 2014; Zrilić, 2011)

Various studies in the Republic of Croatia in the field of early and preschool education Kudek Mirošević and Jurčević Lozančić (2014) show that educators and teachers with longer work experience accept children with developmental disabilities more, yet regardless of the longer work experience, they do not feel competent enough and feel that they need more professional training. The results of the research show contradictory findings with regard to the teacher's age. Most researches show that teachers are generally self-assessed as under-qualified and incompetent to work with children with developmental disabilities. For example, Sunko. (2010) and Skočić Mihić (2011) state that there is a statistically significant difference between younger teachers, who have more positive attitudes towards the inclusion, and their older colleagues. On the other hand, the findings of Corluka (2017) show that younger and older teachers do not differ significantly in their attitudes about preschool inclusion of children with developmental disabilities. Most of the results of older and recent researches, both globally and in Croatia, show that teachers are self-assessed as under-qualified and incompetent to work with children with developmental disabilities (Kudek & Jurčević, 2014; Miloš & Vrbić, 2015). Younger teachers, as well as those with previous experience in working with children with disabilities, assess themselves as more competent to work with children (Sindik, 2013; Skočić Mihić, 2011). Results of recent researches by Sunko..., Rogulj, and Živković (2019), Bouillet (2018) show that teachers in Croatia consider the following as aggravating factors for implementation of inclusive values in kindergartens: inconsistent availability of kindergarten assistance, lack of competent educational experts, and insufficient cooperation with parents.

Although children with Down syndrome belong to a group of children with developmental disabilities, here it should be emphasized that the attitudes of teachers are positive when it comes to inclusion in regular kindergarten programs. The research by Zupanić (2016) shows that 87.5% of educators/teachers mostly and completely agree that children with Down syndrome should not be put in special institutions, but in regular kindergartens and schools. Researches regarding the relationship between teacher age and inclusion of children with Down syndrome in regular kindergartens prove to be inconsistent, yet all findings attach great importance to teacher education. Accordingly, the question arises about the level of sensitivity of early childhood and preschool education students and teachers to inclusive values, which is our research problem.

#### 1.2. Research Problem

The results of the prior researches indicate a lack of systematic education of teachers for inclusive educational practice. However, it is questionable to what extent early childhood and preschool education students are sensitive

to the inclusive values of children with DS and whether their formal education influences the formation of positive attitudes towards the inclusion. Therefore, with this research we tried to see if there is a difference in the attitudes between early childhood and preschool education teachers and students about the inclusion of children with Down syndrome in kindergartens.

# 1.3. Research Objective and Hypothesis

The aim of this study was to identify the difference in attitudes of teachers with work experience and early childhood and preschool education students on the inclusion of children with Down syndrome in kindergartens. Following 0-hypothesis was set: There is no statistically significant difference in the attitudes of early childhood and preschool education teachers and students about the inclusion of children with Down syndrome in regular kindergartens.

#### 2. METHODS

In order to examine teachers' views on the inclusion of children with Down syndrome, we conducted a survey involving early childhood and preschool education teachers and students. The survey included teachers working in three kindergartens in the city of Split during 2019. They were interviewed through a questionnaire. The survey including early childhood and preschool education students was conducted from June to July 2019 through an online questionnaire. For the purposes of our research, we also created a Questionnaire on assessment of teachers' attitudes towards the inclusion of children with Down syndrome. The survey was anonymous, with the purpose of the questionnaire stated in the instructions at the beginning of the questionnaire. The questionnaire consisted of two parts. The first part was related to the demographic data of the respondents — age, year of study and work experience for early childhood and preschool education students. In the second part of the questionnaire, the respondents used Likert scale to determine their degree of agreement/disagreement with statements regarding the inclusion of children with Down syndrome in regular kindergarten, whereupon three levels of agreement were offered: 1—I disagree, 2—I neither agree nor disagree, 3—I agree. The questionnaire contained 24 elements, and the results were processed in the SPSS program.

# 3. RESULTS AND DISCUSSION

The results obtained upon questioning the attitudes of early childhood and preschool education teachers and students were analyzed by descriptive statistics and t-test of independent variables.

I neither agree I disagree I agree Std. N nor disagree Mean Deviation % f % f f % Statement 3 Students 29.4 22 34 2 5.9 10 64.7 2.5882 .60891 31.4 (S3) Teachers 35 19 54.3 2.1714 .66358 14.3 11 Students 20 Statement 34 58.812 35.32 5.9 1.4706.61473 20 (S20) 57.1 Teachers 35 10 28.620 1.8571.64820 5 14.3Statement Students 34 26 76.56 17.6 2 5.9 1.2941 .5788921 (S21) Teachers 35 40.0 20 57.12.9 1.6286 54695 14 Students Statement 6 17.6 15 44.1 13 38.2 2.205972944 22 (S22) Teachers 5.7 11 31.4 62.9 2.5714 .60807

Table-1. Descriptive results on 1st group statements.

Source: Field data (2019).

# 3.1. 1st Group: "Personal Attitude towards Inclusion of Children with Down Syndrome"

For the purposes of the paper, we singled out the results which showed the difference in the responses of teachers and students, as well as the results where the t-test showed that the 0-hypothesis should be rejected. The

results were presented through thematic statements grouped by content as follows: personal attitude towards inclusion of children with Down syndrome; inclusion success; knowledge and training; kindergarten and inclusion; and attitudes towards parents of children with Down syndrome.

Table-2. Significance of differences between the means of scores of the students and the teachers on 1st group statements.

	Table-2. Signif			between th	e means of sc			eachers on 1st gro	oup statemen	ts.
			e's Test			t-test	for Equality	of Means		
			uality of							
		F	iances Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Interva Diffe	nfidence l of the rence
									Lower	Upper
Statement 3 (S3)	Equal variances assumed	.021	.886	2.716	67	.008	.41681	.15344	.11053	.72308
Statem	Equal variances not assumed			2.720	66.787	.008	.41681	.15325	.11090	.72272
Statement 20 (S20)	Equal variances assumed	.593	.444	-2.540	67	.013	38655	.15217	69029	08282
Statem (S2	Equal variances not assumed			-2.542	66.963	.013	38655	.15205	69005	08306
ement 21 (S21)	Equal variances assumed	.591	.445	-2.467	67	.016	33445	.13555	60501	06390
Statement $21$ (S21)	Equal variances not assumed			-2.465	66.507	.016	33445	.13566	60527	06364
Statement $22$ (S22)	Equal variances assumed	.729	.396	-2.264	67	.027	36555	.16148	68786	04323
Statem (Sg	Equal variances not assumed			-2.258	64.197	.027	36555	.16191	68897	04212

Source: Field data (2019).

Having analyzed the responses to the statements in Table 2, we would like to point a statement S3 -I would like to have a child with Down syndrome in my educational group, for which results showed a slight difference in arithmetic means. From the response frequencies it is evident that the students gave the answer I disagree somewhat more often while the teachers answered I agree somewhat more often. According to the frequencies, it can be concluded that the majority of respondents answered they could not assess whether they agreed or disagreed with the statement. Analyzing the result of the independent variables t-test at 95% certainty (t = 2,716, df = 67, sig = 0,008), we can accept the 0-hypothesis and conclude that there is no statistically significant difference in the attitudes of teachers and students towards having a child with DS in their educational group.

For the statement S20 -In a regular group, children with Down syndrome experience failure more often than in special groups, the results showed a slightly more positive attitude of students towards the statement as opposed to teachers. Most often, teachers were unable to assess whether or not they agreed with this statement. According to the results of the t-test (t = -2,540, df = 67 and sig = 0,13), there is no statistically significant difference in the responses and we accept the 0-hypothesis.

In this group of statements, the results showed a difference in responses to the statement S21 -A child with Down syndrome is not able to participate in regular kindergarten activities. Students expressed more acceptable views towards this statement (f = 26 - I disagree). The responses of teachers who were mostly unable to evaluate their

attitude towards the above are worrying, majority of the responses being precisely as stated in Table 2. Here, it is possible to expect a more positive attitude among teachers towards inclusion and children with DS provided teachers have a good experience and additional knowledge through continuous professional training.

The statement S22 For children with Down syndrome, it would be good to organize a part of activities in a regular group, and a part in a special institution showed a smaller difference in arithmetic means of students' and teachers' responses, but t-test (t = -2,264, df = 67 and sig = 0.27) showed there was no statistically significant difference in the responses of both groups of respondents Table 2.

This element shines light on the negative attitude of teachers towards inclusion, although they often declare as such. According to Alfirev (2000), long-term hospitalization and segregation of children inside special institutions have negatively resulted in reducing social competence, causing infantilism, depersonalization, and other undesirable behaviors such as aggression, self-destructiveness, stereotypization, etc. Based on the teachers' responses in this research, it is evident that they are not aware of these negative consequences. This leads us to conclude that work experience does not contribute to building a more positive attitude towards inclusion of children with Down syndrome.

## 3.2. 2nd Group: "Inclusion Success"

Table-3. Descriptive results on  $2^{nd}$  group statements

		N	I dis	sagree		her agree disagree	Ιa	agree	Mean	Std. Deviation
			f	%	f	%	f	%		
Statement	Students	34	1	2.9	13	38.2	20	58.8	2.5588	.56091
14 (S14)	Teachers	35	0	0	2	5.7	33	94.3	2.9429	.23550
Statement	Students	34	0	0	18	52.9	16	47.1	2.4706	.50664
15 (S15)	Teachers	35	2	5.7	7	20.0	26	74.3	2.6857	.58266

Source: Field data (2019).

Table-4. Significance of differences between the means of scores of the students and the teachers on 2<sup>nd</sup> group statements.

		Levene' for Equa				t-t	est for Equali	ity of Means		
		Varia	nces							
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	Interv	onfidence al of the erence
									Lower	Upper
₹1	Equal	72.328	.000	-3.727	67	.000	38403	.10304	58970	17837
<u>.</u>	variances									
emen (S14)	assumed									
Statement 14 (S14)	Equal			-3.689	44.017	.001	38403	.10411	59384	17422
tat	variances not									
$\infty$	assumed									
20	Equal	.288	.593	-1.635	67	.107	21513	.13161	47781	.04756
t 1	variances									
en.	assumed									
Statement 15 (S15)	Equal			-1.638	66.203	.106	21513	.13134	47733	.04708
tat	variances not									
$\infty$	assumed									

Source: Field data (2019).

In the second group of statements concerning attitudes towards the success of inclusion of children with Down syndrome Table 4, we can single out the responses for statement S14 *The number of children in an educational group influences the quality of inclusion of children with Down syndrome*, where a smaller difference in the arithmetic means of the responses of the two groups of respondents is evident. According to the response frequencies, we can say the majority of teachers' responses are in the category of agreement with the above statement, while students are

divided, a part of them giving affirmative responses while others cannot evaluate their attitude towards the statement. It can therefore be concluded that the lack of teachers' experience is the cause of some of the answers in the category "I neither agree nor disagree".

The results of the t-test at 95% statistical significance (t = -3.689, df = 44.017 and sig = 0.001) show that due to the Levene's test for Equality of Variances sig = 0.000, we reject the 0-hypothesis and accept the alternative hypothesis according to which we conclude that there is statistically significant difference in attitudes of preschool education teachers and students towards the above statement. The attitude of teachers that the number of children influences the inclusion quality is supported by the long-term deviation in the number of children in educational groups from the State Pedagogical Standard (2008). The kindergartens in the Republic of Croatia for years have faced a problem with the number of children in preschool institutions, which on one hand increases the demographic problems, and on the other hand raises questions on the quality of working conditions. Most often in larger cities where institutions have a higher (around 95%) percentage of children, the overcapacity leads to non-compliance with standards and thus a lack of other conditions for a quality work (Bouilllet, 2018) whereupon the (in)adequate quality of inclusive values implementation can be considered.

For the statement S15 A teacher needs an assistant for working with children with Down syndrome the results show a slight difference in arithmetic means, and according to the response frequencies, we can put most of teachers' responses in the "I agree" category. The hesitancy shown by the greater number of students' responses in the "I neither agree nor disagree" category can be linked to the lack of practical experience.

# 3.3. 3rd Group: "Knowledge and Training"

Table-5. Descriptive results on 3rd group statements.

		N	I disagree		I neither agree nor disagree		I agree		Mean	Std. Deviation
			f	%	f	%	f	%		
Statement 1	Students	34	8	23.5	19	55.9	3	20.6	1.9706	.67354
(S1)	Teachers	35	11	31.4	22	62.9	2	5.7	1.7429	.56061
Statement 7	Students	34	1	2.9	5	14.7	28	82.4	2.7941	.47860
(S7)	Teachers	35	4	11.4	7	20.0	24	68.6	2.5714	.69814
Statement 8	Students	34	2	5.9	1	2.9	31	91.2	2.8529	.50045
(S8)	Teachers	35	7	20.0	8	22.9	20	57.1	2.3714	.80753

Source: Field data (2019).

This group of statements includes three statements addressing attitudes about one's own knowledge and professional training as seen in Table 5. For the statement S1 I have sufficient knowledge of the needs of children with Down syndrome, the results of the study show similar responses from both students and teachers. Other statistical indicators (arithmetic mean and t-test) have shown similar results, but we can agree that direct experience in working with children with Down syndrome can contribute to the increased need for further training and lifelong learning.

However, this is not evident from the results which might lead us to conclude that the instrument used in this study fails to measure this attitude. Given that the results are inclined towards the responses in the category of "I neither agree nor disagree" and partly towards the view that they are not sufficiently informed, it is possible to conclude that there is a need for further professional development. This is supported by the Strategic Education Plan in the Republic of Croatia 2019 – 2021 (2018), which mentions the achievement of lifelong learning and the pursuit of a knowledge society. The disadvantage of this idea lies in the realization and needs of certain parts of society. Specifically, for teachers of preschool children in the Republic of Croatia, the professional trainings

organized by the Education and Teacher Training Agency are valued, while those organized by the non-governmental sector (associations, private companies, private individuals, etc.) are significantly less valued.

**Table-6.** Significance of differences between the means of scores of the students and the teachers on 3<sup>rd</sup> group statements.

	<b>Table-6.</b> Significance	r		en the mea	ins of scores				o statements.	
		Levei Test Equali Variai	for ty of			t-tes	t for Equalit	y of Means		
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Con Interval Differ	of the
									Lower	Upper
nent 1 1)	Equal variances assumed	.011	.917	1.528	67	.131	.22773	.14901	06969	.52515
Statement 1 (S1)	Equal variances not assumed			1.524	64.159	.132	.22773	.14941	07073	.52619
nent 7 7)	Equal variances assumed	8.788	.004	1.541	67	.128	.22269	.14451	06575	.51113
Statement 7 (S7)	Equal variances not assumed			1.549	60.311	.127	.22269	.14374	06481	.51019
nent 8 8)	Equal variances assumed	23.587	.000	2.967	67	.004	.48151	.16230	.15757	.80546
Statement 8 (S8)	Equal variances not assumed			2.986	57.016	.004	.48151	.16124	.15864	.80438

Source: Field data (2019).

For the statement S7 I need additional education to work with children with Down syndrome, the t-test shows that at 95% statistical significance (t = 1,579, df = 60,311 and sig = 0,127) due to Levene's test for Equality of Variances sig = 0,004, we reject the 0-hypothesis and accept the alternative hypothesis according to which we conclude there is statistically significant difference in attitudes of preschool education teachers and students towards the above statement Table 6. The positive attitude of the students towards additional education and broadening of the acquired knowledge on this topic should be emphasized.

For the statement S8 I would like to participate in professional training on working with children with multiple disabilities, it is necessary to point out the results of teachers' responses, where there is a noticeable difference from the responses of the students of early childhood and preschool education (Table 6). Specifically, at 95% statistical significance (t = 2.986 df = 57.016 and sig = 0.004), due to Levene's test for Equality of Variances sig = 0.000, we reject the 0 hypothesis and accept the alternative hypothesis according to which we conclude that there is a statistically significant difference in attitudes of preschool education teachers and students towards the above statement. The results showing teachers' attitudes towards professional training on working with children with disabilities are also worrying. This is mostly evident from the responses in the category in which they cannot assess their attitude. In the questionnaire used for the research, questions in the field of multiple difficulties are not presented primarily because of the issue of children with Down syndrome. Yet, based on the results obtained, there certainly is the need to conduct research on attitudes towards children with multiple disabilities, among which there also some children with DS.

# 3.4. 4th Group: "Kindergarten and Inclusion"

Table-7. Descriptive results on 4th group statements.

		N	I di	sagree	I neither agree nor disagree		I agree		Mean	Std. Deviation
			f	%	f	%	f	%		
Statement	Students	34	14	41.2	18	52.9	2	5.9	1.6471	.59708
16 (S16)	Teachers	35	6	17.1	20	57.1	9	25.7	2.0857	.65849

Source: Field data (2019).

Table-8. Significance of differences between the means of scores of the students and the teachers on 4th group statements.

			's Test ality of inces			t-te	st for Equali	ty of Means		
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Cor Interval Differ	l of the
									Lower	Upper
Statement 16 (S16)	Equal variances assumed	.498	.483	-2.896	67	.005	43866	.15146	74097	13634
Staten (S	Equal variances not assumed			-2.900	66.689	.005	43866	.15124	74056	13675

Source: Field data (2019).

We have singled out the statement S16 Kindergartens sufficiently include children with Down syndrome. The arithmetic means of the responses show the difference in teachers' and students' responses while the t-test (t = -2,896, df = 67 and sig = 0.005) shows that there is no statistically significant difference in the responses of both groups of respondents. It is necessary to point out a number of teachers' responses (f = 20) in the category where they cannot assess the (dis)agreement with the above statement (Table 8). The responses are worrying because in the city of Split all kindergartens are inclusive, and children with developmental disabilities have the right to priority enrollment. Similar are the responses of students in the category where they cannot assess their attitude. The difference is obvious in the positive and negative attitudes. Teachers who (f = 9) agree with the statement are less in number as opposed to students who disagree (f = 14) with the above statement. Here, too, we can conclude that, regardless of the long-term intensive work and implementation of inclusion in early childhood and preschool institutions, attitudes are not positive to the extent expected. Certainly, it is necessary to follow the topic of inclusion in the context of kindergarten through a long-term research, using a more sensitive and comprehensive instrument, and a larger sample. Given the small sample size of this research, it is not possible to make conclusions about such attitude at the population level.

# 3.5. 5th Group: "Attitudes towards Parents of Children with Down Syndrome"

Table-9. Descriptive results on  $5^{th}$  group statements

		N	I disagree		I neither agree nor disagree		I agree		Mean	Std. Deviation
			f	%	f	%	f	%		
Statement	Students	34	8	23.5	22	64.7	4	11.8	1.8824	.59108
23 (S23)	Teachers	35	3	8.6	23	65.7	9	25.7	2.1714	.56806
Statement	Students	34	5	14.7	26	76.5	3	8.8	1.9412	.48873
24 (S24)	Teachers	35	3	8.6	26	74.3	6	17.1	2.0857	.50709

Source: Field data (2019).

Table-10. Significance of differences between the means of scores of the students and the teachers on 5th group statements.

		Tes Equa	ene's et for lity of ances	t-test for Equality of Means								
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	Interva	nfidence al of the rence		
									Lower	Upper		
nt 23 )	Equal variances assumed	.013	.908	-2.072	67	.042	28908	.13954	56761	01054		
Statement (S23)	Equal variances not assumed			-2.070	66.682	.042	28908	.13963	56780	01036		
nt 24	Equal variances assumed	.147	.703	-1.205	67	.232	14454	.11995	38396	.09488		
Statement 24 (S24)	Equal variances not assumed			-1.206	66.996	.232	14454	.11988	38383	.09475		

Source: Field data (2019).

In this group of statements (Table 9) there are two statements that relate to attitudes towards parents of children with DS. Respondents' answers to the statement S23 Parents of children with Down syndrome are sufficiently aware of their children's needs show a slight difference in arithmetic means. This difference is reflected in somewhat increase in the teachers' positive attitude towards parents. Most of the teachers' and students' responses belong to the category of "I neither agree nor disagree". T-test (t = -2.072, df = 67 and sig = 0.042) at 95% statistical significance shows that there is no statistically significant difference in the attitudes of both groups of respondents (Table 10). The increase in teachers' positive attitudes may be caused by the immediate experience of working with parents. However, most of the responses are in the "I cannot assess" category, which can be explained due to the lack of teachers' collaborative experience with parents of children with Down syndrome.

Regarding the statement S24 Parents' expectations of their children with Down syndrome, it can be seen many respondents cannot assess their attitude. Such responses may again indicate a lack of experience with parents of children with DS, or a lack of collaboration and partnership between teachers and parents. Most parents of children below the age of 7 use many early intervention services in special institutions, hospitals, social care institutions, or private institutions, therefore some children with DS may not be included in regular kindergartens. This is in contrast to the efforts of the local community, who is the founder of most kindergartens.

# 4. CONCLUSION

Inclusion of children with DS depends on the attitudes, knowledge and acceptance of the rights of all children, and not merely at the declarative level. More recent researches show that teachers generally have a positive attitude towards inclusion of children with developmental disabilities at a declarative level. The results of this study confirm a positive personal attitude, which is in line with recent researches. The research confirms the findings of previous studies in that there is no difference in personal attitudes between younger and older teachers. It is easier for teachers to accept partial integration than inclusion. The responses confirm the opinions and needs of the teachers for a stronger additional support from both assistants and professional services, greater cooperation with parents and fewer children in the group. The obtained results show that the additional need for education is expressed more by students than by teachers, which is not surprising given the greater experience and the greater number of trainings available to teachers. The study shows deficiencies in formal and non-formal education of teachers

regarding the inclusion of children with DS and children with disabilities in general. Findings point to the need to develop competencies and enable independent work to students and teachers in pragmatic, operational, professional and managerial strategies for purposes of the inclusion.

The research should further be conducted longitudinally, over longer periods of time and in the future because inclusion is a process, not a momentary goal. The disadvantage of this research is the insensitivity of the instrument used in this study. If its sensitivity is increased, this instrument can be recommended to be used for all children with developmental disabilities, not just children with DS. In the future, it would certainly be necessary to further expand the sample of the research with regard to the topic and problems addressed in the research results. More frequent monitoring and presentation of results can help to enrich the inclusive approaches to children with DS and children with developmental disabilities in general.

Funding: This study received no specific financial support.

Competing Interests: The authors declare that they have no competing interests.

Acknowledgement: Both authors contributed equally to the conception and design of the study.

# **REFERENCES**

- Acedo, C. (2008). Inclusive education: Pushing the boundaires. *Prospects*, 38(1), 5-13.Available at: https://doi.org/10.1007/s11125-008-9064-z
- Alfirev, M. (2000). A social model in the rehabilitation of persons with mental retardation. *Croatian Review of Rehabilitation Research*, 36(1), 9-16.
- Alsheikh, H. A., Almutairy, A. N., Alotaibi, A. A., Alsaab, A. S., & Ahme, S. M. (2019). Awareness and attitude towards people with down syndrome-a community based study in Majmaah, Saudi Arabia. *Indo American Journal of Pharmaceutical Sciences*, 6(1), 820-827. Available at: <a href="http://doi.org/10.5281/zenodo.2537611">http://doi.org/10.5281/zenodo.2537611</a>.
- Benett, J. (2012). ECEC for children from disadvantaged backgrounds: Findings from a European literature review and two case studies Final Report. European Commission Directorate General for Education and Culture.
- Bentley, L., Dance, R., Morling, E., Miller, S., & Wong, S. (2016). Supporting children with down's syndrome. Retrieved from: https://doi.org/10.4324/9781315690629.
- Bouillet, D., & Loborec, M. (2012). A survey of educators' assessments of the possibility of inclusion of children with ADHD in a regular kindergarten program. *Progress*, 153(1), 21-38.
- Bouillet, D. (2018). Beyond inclusion of early and pre-school children: A Report on a conducted analysis of the accessibility of quality early and pre-school education to children in vulnerable situations in Croatia, UNICEF. Retreived from: https://www.unicef.hr/wp-content/uploads/2018/12/S\_one\_strane\_inkluzije\_FINAL.pdf.
- Bulić, D. (2013). Mothers 'perceptions of family members' involvement in the daily activities of a child with down syndrome.

  Croatian Review of Rehabilitation Research, 49(2), 17-27.
- Channell, M. M., Hahn, L. J., Rosser, T. C., Hamilton, D., Frank-Crawford, M. A., Capone, G. T., & Sherman, S. L. (2019).

  Characteristics associated with autism spectrum disorder risk in Individuals with down syndrome. *Journal of Autism and Developmental Disorders*, 49(9), 3543-3556. Available at: https://doi.org/10.1007/s10803-019-04074-1.
- Choi, H., & Van Riper, M. (2019). Health family adaptation intervention for families of young children with down syndrome: A feasibility study. *Journal of Pediatric Nursing*, 50(1), 69-76.
- Corluka, J. (2017). Attitudes of preschool teachers towards the educational inclusion of children with special needs Graduate. Thesis.

  Rijeka: The Faculty of Humanities and Social Sciences in Rijeka. Retrieved from: https://urn.nsk.hr/urn:nbn:hr:186:259760.
- Culić, V., & Culić, S. (2008). Down syndrome. Paper presented at the Down 21 Syndrome Association. Split: Edition Bošković.

- Delgado, R. N., Ariño, M. E., Betancor, R. V., & Rodríguez-Pérez, A. (2017). Intergroup trust and anxiety: The two sides of stigma towards people with down syndrome. *Annals of Psychology*, 34(1), 117-122. Available at: https://doi.org/10.6018/analesps.34.1.267311.
- Engevik, L. I., Næss, K. B., & Berntsen, L. (2018). Quality of inclusion and related predictors: Teachers' Reports of educational provisions offered to students with down syndrome. *Scandinavian Journal of Educational Research*, 62(1), 34–51. Available at: https://doi.org/10.1080/00313831.2016.1212252.
- Karamatić Brčić, M. (2013). Assumptions of school inclusion. Life and School, LIX(30), 67-77.
- Kiš-Glavaš, L., & Fulgosi-Masnjak, R. (2002). Toward adoption together: Integrating special needs children, A teacher's handbook.

  Croatian Association for Professional Assistance to Children with Special Needs. Zagreb: IDEM.
- Kostelnik, M., Onaga, E., Rohde, B., & Whiren, A. (2004). Kids with special needs. A handbook for educators, teachers and parents.

  Zagreb: Educa.
- Kudek Mirošević, J., & Jurčević Lozančić, A. (2014). Attitudes of educators and teachers regarding the implementation of inclusion in regular preschools and primary schools. *Croatian Journal of Rehabilitation Research*, 50(2), 17-29.
- Kudek, M. J., & Jurčević, L. A. (2014). Attitudes of educators and teachers regarding the implementation of inclusion in regular preschools and primary schools. *Croatian Journal of Rehabilitation Research*, 50(2), 17-29.
- Miloš, I., & Vrbić, V. (2015). Educators' attitudes towards inclusion. Child, Kindergarten, Family, 20(77/78), 60-63.
- Ministry of Science and Education. (2008). State pedagogical standard of pre-school education. Narodne novine (NN 63/08; NN 90/10). Retreived from: https://narodne-novine.nn.hr/clanci/sluzbeni/2008\_06\_63\_2128.html.
- Ministry of Science and Education. (2014). National curriculum for earlyand pre-schooleduaction. Narodne novine (NN05/15). Retreived from: https://narodne-novine.nn.hr/clanci/sluzbeni/2015\_01\_5\_95.html.
- Oxelgren, U. W., Myrelid, Å., Annerén, G., Ekstam, B., Göransson, C., Holmbom, A., & Fernell, E. (2017). Prevalence of autism and attention-deficit-hyperactivity disorder in down syndrome: A population-based study. *Developmental Medicine & Child Neurology*, 59(3), 276-283. Available at: https://doi.org/10.1111/dmcn.13217.
- Pranjić, V., Farago, E., & Arapović, D. (2016). Narrative abilities of children with down syndrome and children with Williams syndrome. *Croatian Journal of Rehabilitation Research*, 52(1), 1-16.
- Rosser, T. C., Edgin, J. O., Capone, G. T., Hamilton, D. R., Allen, E. G., Dooley, K. J., & Sherman, S. L. (2018). Associations between medical history, cognition, and behavior in youth with down syndrome: A Report from the down syndrome cognition project. *American Journal on Intellectual and Developmental Disabilities*, 123(6), 514-528. Available at: https://doi.org/10.1352/1944-7558-123.6.514.
- Sindik, J. (2013). Construction of questionnaire for kindergarten teachers about the attitudes towards inclusion of children with disabilities. *Special Education Rehabilitation*, 12(3), 309-334.
- Skočić Mihić, S. (2011). The willingness of preschool teacher and support factors for the successful preschool inclusion of children with disabilities. Doctoral Dissertation. Zagreb: Faculty of Education and Rehabilitation Sciences. Retreived from: https://www.bib.irb.hr/537386.
- Smith, E., Næss, K.-A. B., & Jarrold, C. (2017). Assessing pragmatic communication in children with down syndrome. *Journal of Communication Disorders*, 68, 10-23. Available at: https://doi.org/10.1016/j.jcomdis.2017.06.003.
- Starbuck, J. M. (2011). On the antiquity of trisomy 21: Moving towards a quantitative diagnosis of down syndrome in historic material culture. *Journal of Contemporary Anthropology*, 2(1), 18-44.
- Sunko, E. (2006). Perspectives of students of teacher education on the integration and inclusion of children with special needs.

  Progress, 147(2), 209-221.
- Sunko., E. (2010). The inclusion of children with autism from the pre-school teachers' perspective. Školski Vjesnik, 59(1), 113-126.
- Sunko.., E., Rogulj, E., & Živković, A. (2019). Educational competence in the inclusion of children with autism spectrum disorder in early and pre-school education institution. *Croatian Jorunal of Education*, 21(1), 181-197. Available at: https://doi.org/10.15516/cje.v21i0.3433.
- Vantić-Tanjić, M., & Nikolić, M. (2010). Inclusive practice from segregation to inclusion. Tuzla: Off-set.

- Višnjić Jevtić, A. (2018). Collaborative relations between educators and parents as a precondition for the development of the culture of growing communities. In: Višnjić Jevtić, A., Visković, I., editor (s). Challenges of Cooperation: Development of Professional Competences of Educators for Cooperation and Partnership with Parents, 77-110.
- Warner, G., Howlin, P., Salomone, E., Moss, J., & Charman, T. (2017). Profiles of children with down syndrome who meet screening criteria for autism Spectrum disorder (ASD): A comparison with children diagnosed with ASD attending specialist schools. *Journal of Intellectual Disability Research*, 61(1), 75-82. Available at: https://doi.org/10.1111/jir.12344.
- World Health Organization. (2017). Genes and human disease: Down syndrome. Retrieved from: <a href="http://www.who.int/genomics/public/geneticdiseases/en/index1.html">http://www.who.int/genomics/public/geneticdiseases/en/index1.html</a> [Accessed November, 12, 2019].
- Zrilić, S. (2011). Children with special needs in kindergarten and lower grades of primary school: A handbook for parents, educators and teachers. Zadar: University of Zadar.
- Zupanić, J. (2016). What does modern society do for children with down syndrome? , Master's Thesis Čakovec: Faculty of Education,
  University of Zagreb Department of Čakovec. Retreived form:
  https://repozitorij.ufzg.unizg.hr/islandora/object/ufzg%3A117/datastream/PDF/view.

Views and opinions expressed in this article are the views and opinions of the author(s), International Journal of Education and Practice shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.