



Teachers' opinions on the inclusion of children with Down syndrome in regular schools

Milena M. Nikolić^{a*}, Matea M. Lozić^{b**}

^a *University in Tuzla, Faculty for Special Education and Rehabilitation,
Tuzla, Bosnia and Herzegovina*

^b *Association of parents, citizens and friends to help children and youth with developmental difficulties "Vodopad ljubavi", Jajce, Bosnia and Herzegovina*

Introduction. Inclusive practices largely depend on teachers and their opinions about the educational inclusion of children with developmental disabilities. It has been proven that teachers' opinion on inclusion depends on the type of developmental disability. **Objectives.** The primary goal of the research is to determine teacher opinions about the inclusion of children with Down syndrome in regular schools. An additional goal was to examine differences in teacher opinions concerning factors such as gender, age, length of service, experience in inclusive education, and education on how to work with children with developmental disabilities. **Methods.** The research sample was convenient and consisted of 70 teachers from Jajce, Bosnia and Herzegovina. The teacher's opinion was examined with a questionnaire constructed for this research. **Results.** Results show that teachers have favorable opinions about the inclusion of children with Down syndrome in regular schools on overall scores. Teacher opinions differ on gender and length of service. Female teachers have a more favorable opinion than male teachers, while teachers with over thirty years of work experience have a negative one. Teacher opinions do not differ concerning age, experience in inclusive education, and education on how to work with children with developmental disabilities. **Conclusion.** There is a need for systematic and continuous work on inclusive policy, culture, and practice in schools, as education of teachers on the characteristics and methods of how to work with children with Down syndrome and other developmental disabilities.

Keywords: inclusive education, Down syndrome, primary education, teacher's opinions

Correspondence: Milena Nikolić, nmilena78@gmail.com

* <https://orcid.org/0000-0003-0033-7044>

** <https://orcid.org/0009-0002-5151-8785>

Introduction

Inclusion of children with developmental disabilities in regular schools is a priority of educational systems today but also a challenge. The inclusion of children in regular classes does not a priori mean the development of inclusive practices (Linder et al., 2019). The inclusion of children with developmental disabilities in regular schools remains a challenge (Zabeli & Gjelaj, 2020), and we are still far from its full implementation in schools (UNESCO, 2015). Many schools still do not guarantee inclusive education and face many difficulties (Koliqi & Zabeli, 2022). Ainscow and Sandill (2010) believe that the most crucial dimensions for developing an inclusive culture, policy, and practice in schools are the participants' attitudes about inclusion and their approach to diversity. Miloš and Vrbić (2015) believe that in addition to attitudes, building an inclusive school also depends on the knowledge, flexibility and creativity of everyone involved in the process. However, it is considered that teachers are key actors in the implementation of inclusion and that their positive opinions are extremely important for the implementation of this educational reform (de Boer et al., 2011 as cited in Kraus, 2020; Koliqi & Zabeli, 2022). Jury et al. (2021) define teachers' attitudes toward inclusive education as viewpoints or dispositions of teachers toward the particular "object" of inclusive education. The authors point out that the mentioned viewpoint can consist of beliefs about teaching children with disabilities in an inclusive environment (the cognitive component), feelings about teaching children with disabilities (the affective component), and actions that support inclusion (the behavioural component).

Research shows that teachers generally support inclusion as a philosophy, but still believe that some children are better off in special schools (Killoran et al., 2013; Sabella, 2015). The attitudes of teachers towards the educational inclusion of students with developmental disabilities range from neutral to positive (Galaterou & Alexander-Stamatios, 2017; Galović et al., 2014; Koliqi & Zabeli, 2022; Mahajan, 2015; Singh et al., 2020) or globally are positive (Đorđević et al., 2018; Guillemot et al., 2022; Odongo & Davidson, 2016). However, there are studies in which the attitudes are negative (Alsolami & Vaughan, 2023; Fu et al., 2021; Koliqi & Zabeli, 2021; Mbwambo & Nes, 2022; Saloviita, 2018; Shari & Vranda, 2016) or range from negative to neutral (Japundža-Milisavljević et al., 2022). It is interesting that recent research shows that teachers show a lack of knowledge about inclusion (Fu et al., 2021; Mbwambo & Nes, 2022). The inconsistency in the results can be explained by cultural differences because the researchers are from different parts of the world (Turkey, South Korea, China, Egypt, El Salvador, Jordan, Serbia, India, and Tanzania). General social attitudes towards people with developmental disabilities in the aforementioned societies are different, which is also reflected on the teachers' attitudes.

It is evident that teachers' attitudes towards the inclusion of children with developmental disabilities in general have been the focus of research for several

years. However, research shows that teachers' attitudes about the educational inclusion of children with developmental disabilities depend on the type of disability. Teachers think that inclusion in regular schools is more suitable for children with motor and sensory disabilities than for children with intellectual disabilities, autism, and behavioral problems (Avramidis & Norwich, 2002 as cited in Völlinger & Supanac, 2020; de Boer et al., 2011 as cited in Völlinger & Supanac, 2020; Jury et al., 2021). Given the above, this research focused on teachers' attitudes about the inclusion of children with Down syndrome in regular elementary schools.

Studies of teachers' attitudes about the inclusion of children with Down syndrome in regular elementary schools, similar to studies of teachers' attitudes about the educational inclusion of children with developmental disabilities, show inconsistent results. Several studies found positive opinions (Fox et al., 2004; Krause, 2020; Petley, 1994; Petty & Sadler, 1996), two found negative attitudes (Vlachou, 1993; Wishart & Manning, 1996), and in some studies, teachers' attitudes range from positive to negative (Johnson, 2006; Rietveld 1986, 1988). Research shows that teachers have more positive attitudes about the social inclusion of children with Down syndrome than about the academic one (Campbell et al., 2003; Krause, 2020; Petty & Sadler, 1996). The inconsistency of research results is a consequence of the fact that attitudes are influenced by different factors. According to Avramidis and Norwich (2002), three groups of factors should be taken into account when investigating attitudes: teacher factors, child-related factors, and environmental factors. Previous research results are divided concerning the teacher factors and they agree that experience in working with children with Down syndrome (Gilmore et al., 2003; Johnson, 2006; Krause, 2020; Petley, 1994) and knowledge of inclusive practices (Campbell et al., 2003; Krause, 2020) influenced teachers' attitudes. Researches do not agree on the impact of earlier contact with students with Down syndrome on teachers' attitudes, so in the research of Wishart & Manning (1996 according to Krause, 2020), earlier contact proved to be a significant factor, while in the research of Krause (2020) it was not significant. Inconsistency also exists regarding the influence of knowledge that teachers have about Down syndrome. In the study of Gilmore et al. (2003), teachers' knowledge about Down syndrome affected attitudes, while Krause (2020) found it significant only in interaction with the variable experience in inclusive education. As Krause (2020), in her Doctoral dissertation pointed out, the results of the research regarding teachers' confidence in their abilities to meet the needs of children with Down syndrome were divided, so in some studies, the influence of this variable on attitudes was determined (Petty & Sadler, 1996), while in her research it was not (Krause, 2020). The research results regarding the influence of teachers' confidence in their ability to support the needs of children with Down syndrome are also inconsistent. In some studies, this variable influences teachers' attitudes (Petty

& Sadler, 1996 according Krause, 2020), while Krause (2020) did not confirm that. Inconsistency exists regarding the influence of teacher factors such as gender, chronological age, and length of service. Gilmore et al. (2003) found that the mentioned factors did not influence teachers' attitudes about the educational inclusion of children with Down syndrome, while in the study by Krause (2020), gender and length of service influence teachers' attitudes. Consistency of research exists concerning the child-related factor, and studies show that the child's educational level is negatively related to the teachers' attitudes and that the younger the children are, the teachers' attitudes are more positive (Gilmore et al., 2003; Krause, 2020). Also, there is an agreement concerning environmental factors, and studies have found that variables adequate staff, school finances, and support of teachers influenced their attitudes about the inclusion of children with Down syndrome in regular schools (Gilmore et al., 2003; Johnson, 2006; Petley, 1994; Petty & Sadler, 1996; Vlachou, 1993; Wishart & Manning, 1996 all according to Krause, 2020).

A review of the research showed a lack of research about teachers' attitudes on the educational inclusion of children with Down syndrome in regular schools. Eleven papers covering the period from 1994 to 2020 were found and analyzed. Inconsistency in results was observed on both total scores and on the factors influencing teachers' attitudes. The most common inconsistency is due to the teacher's factor and for that reason, this factor will be the focus of this research. It was stated earlier that attitudes towards inclusion are multidimensional; consist of three components. This research is not aimed at examining the multidimensional attitudes of teachers, but their opinions. An opinion is defined as a view or judgment formed about something. Therefore the main goal of the research is to examine teachers' opinions about the inclusion of children with Down syndrome in regular schools. The objectives are to examine differences in teachers' opinions concerning teacher factors such as gender, chronological age, length of service, experience in inclusive education, and education on how to work with children with developmental disabilities.

Methods

Sample

The research sample consisted of 70 teachers from three elementary schools in the area of Jajce ("13. Rujan", "Jajce" Kruščica and "Braća Jezerčić" Divičani), and it is a convenience sample. Female teachers are dominant (72.9%) compared to male teachers (27.1%) ($\chi^2 = 14.629$, $p = .000$). Concerning age, most teachers are between 31 and 40 years (37.1%) and then teachers aged 20 to 30 years (25.7%), while teachers aged 41 to 50 and over 51 years were 18.6% each ($\chi^2 = 6.457$, $p = .091$). Concerning the length of service, most teacher has 0 to 10 years of service (41.4%), then 11 to 20 years of service (32.9%), 21 to 30 years of service (15.7%), and 31 years and over (10.0%) (χ^2

= 18.000, $p = .000$). Experiences in inclusive education have 13 teachers (18.6%), while 57 (81.4%) did not ($\chi^2 = 27.657$, $p = .000$). Education on how to work with children with a developmental disability was passed by 24 teachers (34.3%), while 46 (65.7%) did not ($\chi^2 = 6.914$, $p = .009$).

Instruments

Teachers' opinions about the inclusion of children with Down syndrome in regular schools were examined using a Questionnaire created for this research. The Questionnaire consisted of 14 statements to which respondents could answer by choosing one of the five answers offered (do not agree at all, mostly disagree, cannot decide, mostly agree, completely agree). A positive opinion carries the highest number of points. The four variables are given in a negative form (items 2, 7, 10, and 14) and scored inversely. The lowest result on the Questionnaire is 14 points; the highest is 70 points, and the average score is 42. The Questionnaire shows satisfactory internal reliability in the research sample ($\alpha = .85$).

A general questionnaire was constructed to obtain data about sample such as gender, chronological age, length of service, experience in inclusive education, and education on how to work with children with developmental disabilities.

Procedure

For access to schools and conducting research, consent was obtained from the Ministry of Education, Science, Culture and Sports of the Central Bosnian Canton of Travnik. All participants were informed of all relevant information to make an informed decision about participating in the research. They are familiar with the goal and purpose of the research, anonymity, the possibility of exclusion from the research at any stage, and the fact that the data will be used only for research purposes. Only teachers who gave their consent to participate participated in the research.

Data Analysis

The normality of the distribution of the summary variable of attitudes was tested with the Kolmogorov-Smirnov test, which showed that the results meet the criterion of normality ($p = .200$). Differences concerning gender, experience in inclusive education, and education on how to work with children with developmental disabilities were examined using a t-test, while differences concerning chronological age and length of service were examined using analysis of variance with use of Tukey HSD post hoc test.

Results

Table 1

Teachers' opinions about the inclusion of children with Down syndrome in regular schools

Items	Min.	Max.	M	SD
1 I would like to work with a student with Down syndrome	1.00	5.00	3.29	1.16
2 Children with Down syndrome do not need to attend regular schools	1.00	5.00	3.49	1.45
3 Students with Down syndrome are not a hindrance to quality work in the school classroom	1.00	5.00	3.20	1.25
4 It is not possible to include a student with Down syndrome in schools without a work assistant and a special educator and rehabilitator	1.00	5.00	3.61	1.35
5 My professional competences are good enough to work with students with Down syndrome	1.00	5.00	2.57	1.23
6 I would accept a child with Down syndrome in my class	1.00	5.00	3.84	1.07
7 I am not competent to create positive relationships between students with Down syndrome and other students in the class	1.00	5.00	3.33	1.30
8 Regular educational institutions do not sufficiently integrate children with Down syndrome	1.00	5.00	3.77	1.13
9 The inclusion of children with Down syndrome in regular school classes is helpful for their advancement in the cognitive (cognitive), affective (experiential) and psychomotor (active) areas of development	1.00	5.00	3.97	1.14
10 Students with Down syndrome in regular school classes can negatively affect the achievements of the entire school class	1.00	5.00	3.63	1.33
11 I am ready to attend additional training in order to improve my techniques for working with pupils with Down syndrome	1.00	5.00	3.96	1.13
12 In my institution, education should be conducted for the inclusion of children with disabilities in regular institutions (lectures, workshops, etc.)	1.00	5.00	4.27	1.01
13 Other pupils in the class, in which pupil with Down syndrome are integrated, can expand their knowledge about diversity	1.00	5.00	4.24	1.07
14 Preparation for working with students with Down syndrome would have a negative effect on the achievement of the set learning and teaching goals	1.00	5.00	3.37	1.28
Total score	26.00	69.00	50.54	9.93

On the total score of the Questionnaire (Table 1), teachers achieve results ($M = 50.50$) above the average score (42), so teachers' opinions are positive. A minimum score of 26.00, a maximum score of 69.00, and a standard deviation of 9.93 indicate a dispersion of results. Item analyses showed that teachers have neutral opinions on six items (items 1, 2, 3, 5, 7, and 14) and positive on the eight items (items 4, 6, 8, 9, 10, 11, 12, and 13). Table 2 shows the differences in teachers' opinions about the inclusion of children with Down syndrome in regular schools regarding length of service and chronological age.

Table 2

Differences in relation to the length of service and age of the teachers

		M	SD	F (3,66)	p
Length of service	0-10 years	52.21	8.49	5.95	.001
	11-20 years	51.39	8.00		
	21-30 years	53.00	11.18		
	above 30 years	37.00	10.60		
Chronological Age	20-30 years	50.61	8.40	0.68	.570
	31-40 years	51.92	9.51		
	41-50 years	51.08	9.47		
	above 50 years	47.15	13.10		

The analysis of variance (Table 2) showed that statistically significant differences in teachers' opinions about the inclusion of children with Down syndrome in regular schools do not exist concerning chronological age ($F(3,66) = 0.68, p = .570$) but do exist on length of service ($F(3,66) = 5.95, p = .001$). Results show that teachers with more than 30 years of service have an arithmetic mean of 37.00, which is lower than the average result of the Questionnaire (42), and have negative opinions about the inclusion of children with Down syndrome in regular schools. The Tukey HSD post hoc test show that the group of teachers with more than 30 years of service is statistically significantly different from the remaining three groups of teachers. The statistical significance of the differences concerning the groups from 0 to 10 years of service is $p = .001$, the group from 11 to 20 is $p = .002$, and the group with 21 to 30 years of service is $p = .003$.

Differences in teachers' opinions about the inclusion of children with Down syndrome in regular schools regarding gender, experience in inclusive education, and education on how to work with children with developmental disabilities are presented in Table 3.

Table 3*Differences of respondents in relation to gender, experiences and education*

		N	M	SD	t (68)	p
Gender	Male	19	48.63	12.73	-0.98	.006
	Female	51	51.25	8.70		
Experience in inclusive education	Yes	13	58.38	10.32	3.39	.901
	No	57	48.75	9.00		
Education on how to work with children with developmental disabilities	Yes	24	55.46	9.23	3.19	.740
	No	46	47.98	9.38		

T-test (Table 3) showed statistically significant differences in teachers' opinions about the inclusion of children with Down syndrome in regular schools regarding gender ($t(68) = -0.98, p = .006$). More positive opinion are expressed by female teachers ($AS = 51.25$). There are no differences in teachers' opinions about the inclusion of children with Down syndrome in regular schools concerning experience in inclusive education ($t(68) = 3.39, p = .901$) and education on how to work with children with developmental disabilities ($t(68) = 3.19, p = .740$).

Discussions

The results show that teachers have positive opinions about the inclusion of children with Down syndrome in regular schools on overall scores. Research that is more recent also finds positive teachers' attitudes toward the educational inclusion of children with Down syndrome on the overall scores (Krause, 2020). Positive attitudes of teachers are also found in older research (Fox et al., 2004; Petley, 1994; Petty & Sadler, 1996), but comparing the results of this research with older ones is not possible for two reasons. First, teachers already had pupils with Down syndrome in their classes, and the teacher samples were small, ranging from nine teachers (Petley, 1994; Petty & Sadler, 1996) to 18 teachers (Fox et al., 2004). Second, the research is outdated, two studies are from the last century, and one is from the beginning of the new millennium. Society's opinion in general, as well as the teachers' ones about the inclusion of children with developmental disabilities in regular school, have significantly evolved today compared to 1990, which is also confirmed by the results of a meta-analysis conducted by Guillemont et al. (2022), which show that teachers' attitudes have significantly improved since 2000 to 2020.

Item analysis showed that teachers express a neutral opinion mainly on the items related to direct work in the classroom, such as willingness to work with a child with Down syndrome, their professional competencies for working

with children with Down syndrome, and for creating positive relationships between children. They have a neutral opinion on the issue of whether students with Down syndrome do not pose a hindrance to quality work in the classroom of a regular school, as well as on the issue of whether preparation for working with students with Down syndrome would adversely affect the achievement of the set learning and teaching goals. Teachers express a positive opinion about the acceptance of students with Down syndrome in the class but think that it is not possible to include a student with Down syndrome in regular educational institutions without work assistants and special educators and rehabilitators. They believe that educational institutions do not sufficiently integrate students with Down syndrome and that they will not negatively affect the achievements of the entire class. They think that their schools should conduct education about the inclusion of children with disabilities and that they are ready to attend them. They believe that the educational inclusion of students with Down syndrome is beneficial for their progress and the progress of their peers because they can expand their knowledge about diversity. Results indicate the need for further improvement of inclusive policy, culture, and practice in schools, as well as continuous education of teachers about inclusion in general and inclusion of children with Down syndrome in regular schools.

Teachers' opinions about the inclusion of children with Down syndrome in regular schools do not differ concerning the teachers' age. In past research on this topic, age was examined only in the study of Gilmore et al. (2003), who reached the same result. Age may be a factor that does not affect teachers' opinions, but this cannot be said with certainty. The sub-samples of teachers concerning age were uneven, and in two sub-sample were only thirteen teachers each. Due to this fact, there is a need to verify the obtained results on larger and uniform samples of teachers concerning age. An additional reason for further research is that research is generally inconsistent regarding the influence of chronological age on teachers' attitudes about the inclusion of children with developmental disabilities in regular schools. In some studies, age was not a significant factor (Ahmmed et al., 2012; Koliqi & Zabeli, 2022; Radojlovic et al., 2022), but some determined that the younger the teachers, the more favorable their attitudes (Galaterou & Alexander-Stamatios, 2017; Koliqi & Zabeli, 2021; Saloviita, 2018).

Differences in teachers' opinions about the inclusion of children with Down syndrome in regular schools exist concerning the length of service. A group of teachers with more than 30 years of services express negative opinion, and their opinions differ significantly from the remaining three groups of teachers. This group consisted of only seven teachers, which could have influenced the results. Krause (2020), in the research that was conducted in the UK, found the opposite results; more negative attitudes on the affective and behavioral dimensions showed teachers with shorter length of work experience.

However, research into the influence of the length of service on teachers' attitudes about the inclusion of children with developmental disabilities in regular schools shows that teachers with several years of work experience show more negative attitudes (Aldosari, 2022; Bhatnagar & Das, 2013; Koliqi & Zabeli, 2021; Mouchritsa et al., 2022; Parasuram, 2006; Savolainen et al., 2011). Several explanations for such results are given in the literature. First, teachers with many years of work experience can have difficulties in adapting teaching methods, which can increase teachers' tendency to stress and possibly lead to a negative opinion about inclusion in regular schools (Lambe & Bones, 2006). Second, it is possible that more experienced teachers are more familiar with the challenges and difficulties of teaching children with developmental disabilities in regular classes (Aldosari, 2022). Third, older teachers were completing their studies at a time when the education inclusion was not a generally accepted philosophy (Scanlon et al., 2022).

The results show that the opinion of female teachers towards the inclusion of children with Down syndrome in regular schools is slightly more positive than that of male teachers. However, in the research sample, female teachers dominated (72.9%), and the results should be interpreted with caution. Krause (2020) finds differences concerning gender only on the cognitive dimension, where it was shown that female teachers have a positive attitude and male teachers have a neutral one. Most research on the influence of gender on teachers' attitudes about the inclusion of children with developmental disabilities shows that female teachers exhibit more positive one (Al-Zyoudi, 2006; Avramidis & Norwick, 2002; Gallego-Ortega & Rodriguez-Fuentes, 2021; Koliqi & Zabeli, 2021; Mahajan, 2015; Mouchritsa et al., 2022; Parasuram, 2006; Shari & Vranda, 2016). However, there are also studies where no differences were found (Aldosari, 2022; Đorđević et al., 2018; Lika, 2016; Ozer et al., 2013).

Teachers' opinions do not differ concerning their experience in inclusive education, but only thirteen teachers had experience, which could have influenced the results. Past research (Krause, 2020) shows that previous experience working with children with Down syndrome affects attitudes. A possible explanation for the difference in the results of this research and past ones is in the formulation of the factor itself. In this research, the emphasis was placed on experience in educational inclusion with any population of children with developmental disabilities, as it is unlikely that teachers had experience working with children with Down syndrome. In Bosnia and Herzegovina, the educational inclusion of children with Down syndrome is still a sporadic phenomenon and not a trend. It is important to emphasize that the teacher's experiences in inclusive education should be positive because only positive experiences will lead to a more favorable opinion of teachers about inclusive education (Galović et al., 2014; Vlachou, 1993). Given that the results obtained in this research are not following earlier research, there is a need for further

studies into the influence of this variable on teachers' opinion according to students with Down syndrome.

In past research, it was established that teachers who have received training on inclusive practices or methods of working with children with developmental disabilities have a more favorable opinion on educational inclusion (Forlin & Chambers, 2011; Odongo & Davidson, 2016; Priyadarshini & Thangarajathi 2016; Vaz et al., 2015 all according Istiarsyah et al., 2019). However, in this research, no differences were found in the opinion of teachers about the inclusion of children with Down syndrome in regular schools concerning whether they have received some form of education on working with children with developmental disabilities. A possible reason for this result is that only 24 teachers had the training. In addition, it is unknown what form of training the teachers received, to what extent, and for which disability type.

The results should be analyzed regarding the limitations that may have affected the results. The first limitation is the small subsamples of teachers concerning the observed variables. Another limitation concerns the territorial scope of the sample, as the sample consisted of teachers from one city, not from the entire territory of Bosnia and Herzegovina, which would be desirable. The third limitation refers to the Questionnaire constructed for this research and whose metric characteristics have not been determined. Considering mentioned limitations, as well as the obtained results, there is a need for further research on this topic. It would be desirable in future research to include some other teacher factors such as knowledge about Down syndrome, previous contact with children with Down syndrome, teachers' confidence in their abilities to meet the needs of children with Down syndrome, etc. Future research also should include child-related (i.e., child's educational level, health problems, cognitive level, etc.) and environmental factors (i.e., support of special educator and rehabilitator and other staff, school finances, additional education, etc.).

Conclusions

Results show that teachers express positive opinions about the inclusion of children with Down syndrome in regular schools on the overall score. Teachers' opinions differ concerning gender, so female teachers have a more favorable opinion than male teachers do. Length of service influences teachers' opinions, so teachers with work experience over thirty years have negative opinion. Teachers' opinions about the inclusion of children with Down syndrome in regular schools do not differ concerning age, experience in inclusive education, and education on how to work with children with developmental disabilities. Although teachers' opinions are positive on the overall score, a significant percentage of teachers express a neutral opinion, and four teachers show negative opinions indicating the need for systematic and continuous work on inclusive policy, culture, and practice in schools. There is also a need for ongoing training

of teachers about children with Down syndrome and the possibilities of their inclusion. The results should be analyzed regarding the limitations, so future research should eliminate them. Future research needs to expand the variables and include all three groups of factors (teacher factors, child-related factors, and environmental factors).

References

- Ahmed, M., Sharma, U., & Deppeler, J. (2012). Variables affecting teachers' attitudes towards inclusive education in Bangladesh. *Journal of Research in Special Educational Needs*, 12(3), 132-140. <https://doi.org/10.1111/j.1471-3802.2011.01226.x>
- Ainscow, M., & Sandill, A. (2010). Developing inclusive education systems: The role of organisational cultures and leadership. *International Journal of Inclusive Education*, 14(4), 401-416. <https://doi.org/10.1080/136031108025049034>
- Aldosari, M. S. (2022). Factors affecting middle school teachers' attitudes toward the inclusion of students with disabilities. *Frontiers in Psychology*, 13, 853696. <https://doi.org/10.3389/fpsyg.2022.853696>
- Alsolami, A., & Vaughan, M. (2023). Teacher attitudes toward inclusion of students with disabilities in Jeddah elementary schools. *PLoS ONE*, 18(1), e0279068. <https://doi.org/10.1371/journal.pone.0279068>
- Al-Zyoudi, M. (2006). Teachers' attitudes towards inclusive education in Jordanian schools. *International Journal of Special Education*, 21(2), 55-62.
- Avramidis, E., & Norwich, B. (2002). Mainstream teachers' attitudes towards inclusion/integration: A review of the literature. *European Journal of Special Needs Education*, 17(2), 129-147. <https://doi.org/10.1080/08856250210129056>
- Bhatnagar, N., & Das, A. (2013). Attitudes of secondary school teachers towards inclusive education in New Delhi, India. *Journal of Research in Special Education Needs*, 14(4), 255-263. <http://dx.doi.org/10.1111/1471-3802.12016>
- Campbell, J., Gilmore, L., & Cuskelly, M. (2003). Changing student teachers' attitudes towards disability and inclusion. *Journal of Intellectual and Developmental Disability*, 28(4), 369-379. <https://doi.org/10.1080/13668250310001616407>
- de Boer, A., Pijl, S.-J., & Minnaert, A. (2011). Regular primary schoolteachers' attitudes towards inclusive education: A review of the literature. *International Journal of Inclusive Education*, 15(3), 331-353. <https://doi.org/10.1080/13603110903030089>
- Đorđević, S., Stanojević, D., & Đorđević, L. (2018). Attitudes towards inclusive education from the perspective of teachers and professional associates. *Teme*, XLII(1), 1-15. <https://doi.org/10.22190/TEME1801001D>
- Forlin, C., & Chambers, D. (2011). Teacher preparation for inclusive education: Increasing knowledge but raising concerns. *Asia-Pacific Journal of Teacher Education*, 39(1), 17-32. <http://dx.doi.org/10.1080/1359866X.2010.540850>
- Fox, S., Farrell, P., & Davis, P. (2004). Factors associated with the effective inclusion of primary-aged pupils with Down's syndrome. *British Journal of Special Education*, 31(4), 184-190. <https://doi.org/10.1111/j.0952-3383.2004.00353.x>
- Fu, W., Xie, Y., Li, R., & He, X. (2021). General teachers' attitude toward inclusive education in Yunnan Province in China. *International Journal of Psychology and Psychoanalysis*, 7, 052. <https://doi.org/10.23937/2572-4037.1510052>
- Galaterou, J., & Alexander-Stamatios, A. (2017). Teachers' attitudes towards inclusive education: The role of job stressors and demographic parameters. *International*

- Journal of Special Education*, 32(4), 643-658. <https://files.eric.ed.gov/fulltext/EJ1184123.pdf>
- Gallego-Ortega, J. L., & Rodríguez-Fuentes, A. (2021). Teaching attitudes towards students with disabilities. *Mathematics*, 9, 1637. <https://doi.org/10.3390/math 9141637>
- Galović, D., Brojčin, B., & Glumbić, N. (2014). The attitudes of teachers towards inclusive education in Vojvodina. *International Journal of Inclusive Education*, 18(12), 1262-1282. <https://doi.org/10.1080/13603116.2014.886307>
- Gilmore, L., Campbell, J., & Cuskelly, M. (2003). Developmental expectations, personality stereotypes, and attitudes towards inclusive education: Community and teacher views of Down syndrome. *International Journal of Disability, Development and Education*, 50(1), 65-76. <https://doi.org/10.1080/1034912032000053340>
- Guillemot, F., Lacroix, F., & Nocus, I. (2022). Teachers' attitude towards inclusive education from 2000 to 2020: An extended meta-analysis. *International Journal of Educational Research*, 3, 100175. <https://doi.org/10.1016/j.ijedro.2022.100175>
- Istiansyah, Dawi, A.H, Ahmad. N.A. (2019). The Influence of Special Education Training on Teachers' Attitudes towards Inclusive Education: Case Study in Aceh Province, Indonesia. *International Journal of Academic Research in Progressive Education and Development*, 8(4), 1017-1027. <http://dx.doi.org/10.6007/IJARPEd/v8-i4/6901>
- Japundža-Milisavljević, M. M., Đurić-Zdravković, A. A., & Milanović-Dobrota, B. Z. (2022). Stavovi prosvetnih radnika prema inkluziji. *Specijalna edukacija i rehabilitacija*, 21(1), 15-30. <https://doi.org/10.5937/specedreh21-34279>
- Johnson, D. (2006). Listening to the views of those involved in the inclusion of pupils with Down's syndrome into mainstream schools. *Support for Learning*, 21(1), 24-29. <https://doi.org/10.1111/j.1467-9604.2006.00396.x>
- Jury, M., Perrin, A. -L., Rohmer, O., & Desombre, C. (2021). Attitudes toward inclusive education: An exploration of the interaction between teachers' status and students' type of disability within the French context. *Frontiers in Education*, 6, Article 655356. <https://doi.org/10.3389/educ.2021.655356>
- Killoran, I., Woronko, D. & Zaretski, H. (2013). Exploring preservice teachers' attitudes towards inclusion. *International Journal of Inclusive Education*, 18(4), 427-442. <https://doi.org/10.1080/13603116.2013.784367>
- Koliqi, D., & Zabeli, N. (2021). Identification of factors affecting elementary teachers' attitudes towards inclusion in Kosovo: The role of demographic variables. In M. Carmo (Ed.), *Education and New Developments 2021* (pp. 290-293). <https://doi.org/10.36315/2021 end062>
- Koliqi, D., & Zabeli, N. (2022). Variables affecting the attitudes of teachers' towards inclusive education in Kosovo. *Cogent Education*, 9(1), Article 2143629. <https://doi.org/10.1080/ 2331186X.2022.2143629>
- Krause, N. (2020). *Teachers' attitudes towards the inclusion of children with Down's syndrome within mainstream educational settings and the influencing variables* [Doctoral Thesis, Cardiff University School of Psychology]. ORCA. <https://orca.cardiff.ac.uk/id/eprint/ 133929>
- Lambe, J., & Bones, R. (2006). Students teachers' perceptions about inclusive classroom teaching in Northern Ireland prior to teaching practice experience. *European Journal of Special Needs Education*, 21(2), 167-186. <https://doi.org/10.1080/08856250600600828>
- Lika, R. (2016, May 23-25). Teacher's attitude towards the inclusion of students with disabilities in regular schools [Paper presented at the Conference]. *International Conference on Innovations in Science and Education*, Prague, Czech Republic.

- https://www.researchgate.net/publication/309096311_TEACHER'S_ATTITUDE_TOWARDS_THE_INCLUSION_OF_STUDENTS_WITH_DISABILITIES_IN_REGULAR_SCHOOLS
- Lindner, K. -T., Alnahdi, G. H., Wahl, S., & Schwab, S. (2019). Perceived differentiation and personalization teaching approaches in inclusive classrooms: Perspectives of students and teachers. *Frontiers in Education, 4*, Article 58. <https://doi.org/10.3389/educ.2019.00058>
- Mahajan, M. (2015). Attitude of teachers towards inclusive education. *GHG Journal of Sixth Thought, 2*(2), 64-68. http://www.ghgcollegesadhar.org/files/education/journal/j_14_10_2015.pdf
- Mbwambo, A. B., & Nes, K. (2022). Teachers' attitudes towards inclusive education in regular primary schools in Tanzania. *Direct Research Journal of Education and Vocational Studies, 4*(6), 174-178. <https://doi.org/10.26765/DRJEVS668917330>
- Miloš, I., & Vrbić, V. (2015). Stavovi odgajatelja prema inkluziji. *Dijete, vrtić, obitelj, 20*(77/78), 60-63. <https://hrcak.srce.hr/169984>
- Mouchritsa, M., Romero, A., Garay, U., & Kazanopoulos, S. (2022). Teachers' attitudes towards inclusive education at Greek secondary education schools. *Education Science, 12*, 404. <https://doi.org/10.3390/educsci12060404>
- Odongo, G., & Davidson, R. (2016). Examining the attitudes and concerns of the Kenyan teachers toward the inclusion of children with disabilities in the general education classroom: A mixed methods study. *International Journal of Special Education, 31*(2), 209-227.
- Ozer, D., Nalbant, S., Ağlamış, E., Baran, F., Kaya Samut, P., Aktop, A., & Hutzler, Y. (2013). Physical education teachers' attitudes towards children with intellectual disability: The impact of time in service, gender, and previous acquaintance. *Journal of Intellectual Disability Research, 57*(11), 1001-1013. <https://doi.org/10.1111/j.1365-2788.2012.01596.x>
- Parasuram, K. (2006). Variables that affect teachers' attitudes towards disability and inclusive education in Mumbai, India. *Disability & Society, 21*(3), 231-242. <https://doi.org/10.1080/09687590600617352>
- Petley, K. (1994). An investigation into the experiences of parents and head teachers involved in the integration of primary aged children with Down syndrome into mainstream school. *Down Syndrome Research and Practice, 2*(3), 91-96. <https://doi.org/10.3104/reports.36>
- Petty, H., & Sadler, J. (1996). The integration of children with Down syndrome in mainstream schools: Teachers' knowledge, needs, attitudes and expectations. *Down Syndrome Research and Practice, 4*(1), 15-24. <https://doi.org/10.3104/reports.59>
- Priyadarshini, S., & Thangarajathi, S. (2016). Effect of selected variables on regular school teachers attitude towards inclusive education. *Journal on Educational Psychology, 10*(3), 28-38. <http://dx.doi.org/10.26634/jet.10.3.10381>
- Radojlovic, J., Kilibarda, T., Radevic, S., Maricic, M., Parezanovic Ilic, K., Djordjic, M., Colovic, S., Radmanovic, B., Sekulic, M., Djordjevic, O., Niciforovic, J., Simic Vukomanovic, I., Janicijevic, K., & Radovanovic, S. (2022). Attitudes of primary school teachers toward inclusive education. *Frontiers in Psychology, 13*, 891930. <https://doi.org/10.3389/fpsyg.2022.891930>
- Rietveld, C. M. (1986). The adjustment to school of eight children with Down's syndrome from an early intervention program. *Australia & New Zealand Journal of Developmental Disabilities, 12*(3), 159-175. <https://doi.org/10.3109/13668258609084080>

- Rietveld, C. M. (1988). *Adjusting to School: Eight Children with Down's Syndrome* (Item 2. SET: Research Information for Teachers, n1). <https://files.eric.ed.gov/fulltext/ED301976.pdf>
- Sabella, T. V. (2015). *Teachers' attitudes toward inclusion of children with disabilities in rural El Salvador* [Doctoral Dissertation, University of Maryland]. DRUM – Digital Repository at the University of Maryland. https://drum.lib.umd.edu/bitstream/handle/1903/18143/Sabella_umd_0117E_16860.pdf?sequence=1
- Saloviita, T. (2018). Attitudes of Teachers towards Inclusive Education in Finland. *Scandinavian Journal of Educational Research*, 64(2), 270-282. <https://doi.org/10.1080/00313831.2018.1541819>
- Savolainen, H., Engelbrecht, P., Nel, M., & Malinen, O.-P. (2011). Understanding teachers' attitudes and self-efficacy in inclusive education: Implications for pre-service and in-service teacher education. *European Journal of Special Needs Education*, 27(1), 51-68. <https://doi.org/10.1080/08856257.2011.613603>
- Scanlon, G., Radeva, S., Pitsia, V., Maguire, C., & Nikolaeva, S. (2022). Attitudes of teachers in Bulgarian kindergartens towards inclusive education. *Teaching and Teacher Education*, 21, 103650. <https://doi.org/10.1016/j.tate.2022.103650>
- Shari, M., & Vranda, M. N. (2016). Attitude of primary school teachers towards children with learning disabilities. *Journal of Indian Association for Child and Adolescent Mental Health*, 12(4), 323-335. <https://doi.org/10.1177/0973134220160404>
- Singh, S., Kumar, S., & Singh, R. K. (2020). A Study of attitude of teachers towards inclusive education. *Shanlax International Journal of Education*, 9(1), 189-197. <https://doi.org/10.34293/education.v9i1.3511>
- UNESCO. (2015). *Education 2030. Incheon declaration and framework for action for the implementation of sustainable development goal 4*. https://uis.unesco.org/sites/default/files/documents/education-2030-incheon-framework-for-action-implementation-of-sdg4-2016-en_2.pdf
- Valchou, A. (1993). Attitudes and experience of integration. *Down Syndrome Research and Practice*, 1(2), 75-79. <https://doi.org/10.3104/reports.14>
- Vaz, S., Wilson, N., Falkmer, M., Sim, A., Scott, M., Cordier, R., et al. (2015). Factors associated with primary school teachers' attitudes towards the inclusion of students with disabilities. *PLoS ONE*, 10(8), e0137002. <https://doi.org/10.1371/journal.pone.0137002>
- Wishart, J. G., & Manning G. (1996). Trainee teachers' attitudes to inclusive education for children with Down's syndrome. *Journal of Intellectual Disability Research*, 40(1), 56-65. <https://doi.org/10.1111/j.1365-2788.1996.tb00603.x>
- Völlinger, V.A., Supanc, M. (2020). Student teachers' attitudes towards cooperative learning in inclusive education. *European Journal of Psychology Education*, 35, 727-749. <https://doi.org/10.1007/s10212-019-00435-7>
- Zabeli, N. & Gjelaj, M. (2020). Preschool teacher's awareness, attitudes and challenges towards inclusive early childhood education: A qualitative study. *Cogent Education*, 7(1), article no. 1791560. <https://doi.org/10.1080/2331186X.2020.1791560>

Mišljenje nastavnika o inkluziji dece sa Daunovim sindromom u redovne škole

Milena M. Nikolić^a, Matea M. Lozić^b

^a *Univerzitet u Tuzli, Edukacijsko-rehabilitacijski fakultet, Tuzla, Bosna i Hercegovina*

^b *Udruženje/Udruga roditelja, građana i prijatelja za pomoć djeci i omladini s poteškoćama u razvoju „Vodopad ljubavi”, Jajce, Bosna i Hercegovina*

Uvod: Implementacija inkluzivnih praksi u velikoj meri zavisi od nastavnika i njihovog mišljenja o vaspitno-obrazovnoj inkluziji dece sa teškoćama u razvoju. Dokazano je da na mišljenje nastavnika utiče vrsta teškoće u razvoju. *Ciljevi:* Primarni cilj istraživanja je utvrditi mišljenje nastavnika o inkluziji dece sa Daunovim sindromom u redovne škole. Posebni ciljevi istraživanja su da se ispita da li postoje razlike u mišljenju u odnosu na faktore od strane nastavnika, i to: pol, hronološko doba, radni staž, iskustvo u radu i edukacije o radu sa učenicima sa teškoćama u razvoju. *Metod:* Uzorak istraživanja je prigodni i čini ga 70 nastavnika iz Jajca, Bosna i Hercegovina. Mišljenje je ispitano upitnikom konstruisanim za potrebe istraživanja. *Rezultati:* Rezultati su pokazali da nastavnici imaju povoljno mišljenje o inkluziji dece sa Daunovim sindromom u redovne škole na ukupnom skor. Pokazalo se da se mišljenja nastavnika razlikuju u odnosu na pol i radni staž. Nastavnice izražavaju povoljnije mišljenje u odnosu na nastavnike, a nastavnici sa više od trideset godina radnog iskustva izražavaju negativno mišljenje. Mišljenje nastavnika se ne razlikuje u odnosu na hronološko doba, iskustvo u radu i edukacije o radu sa decom sa teškoćama u razvoju. Rezultate istraživanja treba analizirati u odnosu na ograničenja istraživanja na koja se ukazalo u diskusiji i u budućim istraživanjima pokušati da se ona otklone. *Zaključak:* Postoji potreba za sistemskim i kontinuiranim radom na implementiranju inkluzivne politike, kulture i prakse u školama, kao i za edukacijom nastavnika o karakteristikama i načinima rada sa decom sa Daunovim sindromom i drugim vrstama teškoća u razvoju.

Ključne reči: inkluzivna edukacija, Daunov sindrom, redovno osnovno obrazovanje, mišljenje nastavnika

PRIMLJENO: 27.6.2023.

REVIDIRANO: 21.1.2024.

PRIHVACENO: 26.3.2024.