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Teaching Students with Disabilities: Perceived Teacher Competences

Abstract

The modern teacher should be equipped with competences necessary to meet the educational needs of all students, including those with special educational needs, also those with disabilities. The components of teachers' competences include knowledge, skills, and attitudes. The level of these competences may impact students' academic achievements. The aim of the study presented in this paper was to assess teachers' professional competences in working with students with and without disabilities in different types of schools (mainstream, integrated and special) with Polish students. The analyses considered socio-demographic and work-related variables in teachers. The quantitative data were collected from 416 teachers using The Survey of Perceived Professional Teaching Competences. The conducted analysis related to five categories of professional competences: evaluative, psychological, innovative, communicative as well as substantive-methodological. In the analyses, the Wilcoxon paired rank-order test, the rank-sum correlation coefficient for matched pairs (rc), Kendall's tau, and the rpb point-sum correlation coefficient were used. Teachers rated their evaluative competences to work with students with disabilities higher

than their competences to work with typically-developing students, and the students' disability (or lack of it) was the most significant for the perception of their own competence in special education teachers. Statistically significant correlations between the evaluation of their own professional competence and selected sociodemographic variables (four) were found only in teachers of mainstream and special schools (one). Implications for practice are discussed.

Keywords: teachers' competences, students with disabilities, mainstream schools, special schools, integrative schools.

Introduction

The increased numbers of students with disabilities being educated in general education classes (Ćwirynkało & Bartnikowska, 2016) create new challenges for both special and general education teachers. Inclusive education requires teachers to have a range of professional competences, to recognize the potential of each student, to accept the view that there are learning opportunities for each student, regardless of the depth and type of their disability (Chrzanowska & Szumski, 2019). Teachers are considered to play a key role in promoting inclusive education. Their characteristics may either facilitate or hinder the inclusion of students with disabilities (Dinge et al., 2004). The openness of teachers to the diversity and heterogeneity of the group is also important, because the more diverse the group of students, the wider the scope of competence seems necessary (Gajdzica, 2013; Zamkowska & Snopek, 2017; Chrzanowska & Szumski, 2019; Zamkowska, 2019; Kołodziejczyk, 2020). On the other hand, the awareness of high requirements in terms of competences and methodological and organizational skills that are expected from a teacher working with a diverse group can become one of the main obstacles preventing teachers from declaring their readiness to work in inclusive education (Kołodziejczyk, 2020). As Borg et al. (2011) argue, "teachers should be equipped with the skills, knowledge and understanding that will give them the confidence to deal effectively with a range of learner needs" (p. 15).

The term "professional competences" refers to a set of knowledge, skills, values, attitudes, abilities and beliefs that people need to succeed in each

profession. The professional competences of the teacher include pedagogical, cultural, communicative, personal, intellectual, etc. competences that are essential for effective teaching (Kunter et al., 2013; Mohan & Ramaya, 2017; Vitello et al., 2021). Furthermore, it should be emphasized that when talking about teaching competences, we do not rely only on the basics of efficiency, but we also take under consideration the ability to act reflectively, the ability to empathetic understanding and to undertake activities of an emancipatory nature (Sadowska, 2021b). An important component of teachers' professional competences is also their sense of self-efficacy in working with heterogeneous groups of students, i.e., their personal belief that they are able to cope with the tasks in a classroom attended by students with and without disabilities (Chrzanowska & Szumski, 2019, p. 60). As such teaching competence is an on-going process that is constantly assessed through interactions with colleagues, students, parents, and others (Bukvić, 2014; Rabi & Zulkefli, 2018).

Teachers' professional competences have a significant impact on students' academic achievement and future development (Gläser-Zikuda & Fuß, 2008). In the traditional, segregative model of education – where students with disabilities studied in special schools and their teachers were special educators – substantive, didactic, psychological, communicative, interactions, creative, IT and technical, personality and moral-ethical competences were considered particularly important to them (Kupisiewicz, 2016; Sadowska, 2021b). With the development of inclusive education, all teachers aside from adaptive competences (allowing a person to find themselves on the labour market, to be communicative and enterprising) should develop emancipatory and critical competences, which allow to understand social reality better, make choices and understand situation and context of creative activities that are independent and ethical (Sadowska, 2021a; 2021b). In addition, the skills of critical thinking, observance of ethical principles, opposing attitudes of discrimination, empathy abilities, an attitude of respect and inclusive language are considered important in inclusive education (Chrzanowska, 2018).

Mainstream school teachers generally require greater skills and competences in understanding students with disabilities, especially their attitudes and behaviours that positively affect students' learning. To develop these

competences teachers must have a variety of skills, such as: preparing and organising materials needed for conducting daily lessons, practising procedures for dealing with students and designing a learning environment that encourages students to actively participate in group or individual activities (Rabi & Zulkefli, 2018). Inclusive learning requires teachers to see the potential of each student, to accept the view that there are opportunities for each student's learning regardless of the depth and type of his or her disability and openness to diversity (GEMR, 2020).

European Agency for the Development of Special Needs Education (2011) in the Teacher Education for Inclusion (TE4I) distinguished key competences of teachers that were crucial for the development of inclusive education:

"Reflecting on their own learning and continually seeking out information to overcome challenges and support innovative practice:

1. Attending to the well-being of learners, taking responsibility for meeting all learning and support needs and ensuring a positive ethos and good relationships;
1. Collaborating with others (professionals, parents) to assess and plan an engaging curriculum to meet the diverse needs of learners, attending to issues of equality and human rights;
2. Using a variety of 'inclusive' teaching methods and group and independent work appropriate for the aims of learning, the learners' age, and their abilities/stage of development and evaluating learning and the effectiveness of methods used;
3. Addressing language learning in multilingual contexts and valuing cultural diversity as a resource" (EADSNE, 2011, pp. 51–52).

In spite of emphasizing the importance of teaching competences for the education of typically developing students and students with disabilities, there are few studies that would show differences in the level of these competences in teachers of different types of schools. This article aims to fill this gap.

Method

Research aim and object

The aim of this study was to test the assessment of professional competences relating to work with students with disabilities and typically developing students in teachers working in mainstream, special and integrative schools and the importance of sociodemographic and work-related variables (age, work experience, place of residence, social environment, level of education, gender, declared preparation in the field of special education, the dominant form of held classes, experience in working with students with disabilities) in the assessment of professional competences to educate students with disabilities in selected groups of teachers.

The object of the research are the professional competences that have been identified as particularly important in the teacher's role (Byra & Kazanowski, 2015). As a result of the research, it will be possible to identify their professional development needs, which in the long term should support a more dynamic development of inclusive education.

This manuscript presents a descriptive cross-sectional study design since we aimed to examine data from a specific population at one point in time. The study was approved by the Ethics Committee in Special Education, Special Education Section of the Committee of Pedagogical Sciences, Polish Academy of Sciences (No. 2/2022).

Instruments

The Survey of Perceived Professional Teaching Competences was used during the research. This tool was based on an empirical analysis of the needs arising from the role of professionally active teachers (Byra & Kazanowski, 2015). The Survey of Perceived Professional Teaching Competences consists of 43 items grouped into five dimensions: dimension (1) – evaluation competences (8 items); dimension (2) – psychological competences (9 items); dimension (3) – innovative competences (9 items); dimension (4) – communicative

competences (7 items); and dimension (5) – substantive-methodological competences (10 items).

Dimension (1) explains almost 30% of the variance in the results. It includes statements related to the competence to carry out the evaluation of students' achievements and its use in didactic and educational work; Dimension (2) explains 17% of the variance in the results. It brings together competences expressed in effective and persistence coping with difficult situations, building an authentic relationship with a student manifested in sensitivity, patience and openness to his or her needs, full acceptance of their uniqueness; Dimension (3) explains about 7% altogether of the variance in the results. It includes competences related to both substantive professionalism as well as optimization of methodological activities. Dimension (4) explains over 4% of the variance in the results. It expresses competence to innovatively fulfil the professional role, reflected in an innovative approach to the process of teaching and upbringing. The last Dimension (5), explains over 4% of the variance in the results. It includes competence to communicate efficiently, improving communication messages adequately to the individual perceptual abilities of the student, initiating an authentic dialogue with him (Byra & Kazanowski, 2015).

In the current study the values of the Cronbach α coefficients for the whole scale is 0.98. For part A (the assessment of own competences in working with a student without disabilities) is 0.96 (individual dimensions, respectively: evaluation competences – 0.84; psychological competences – 0.82; innovative competences – 0.89; communicative competences – 0.83 and substantive-methodological competences – 0.88). In turn for part B (the assessment of own competences in working with a student with disabilities) the value of the Cronbach α coefficients is 0.98 (and individual dimensions, respectively: evaluation competences – 0.94; psychological competences – 0.92; innovative competences – 0.94; communicative competences – 0.91; and substantive-methodological competences – 0.95).

The survey was used to measure the assessment of competences necessary for optimal functioning as a teacher working in inclusive education. It consists of two parts: A (the assessment of own competences in working with

a student without disabilities) and B (the assessment of own competences in working with a student with disabilities). Both parts of the survey contain the same number of statements (for example: I am able to critically evaluate my behaviour), the only difference is in the instruction addressed to the subjects. The assessment of the competences is carried out on a scale from 1 to 5, where "5" indicates a very high level of given competence, "4" – a high level of given competence, "3" – an average level of given competence, "2" – a low level of given competence and "1" – a very low level of given competence.

The sociodemographic survey contained 17 questions, which allowed to collect information on the surveyed teachers, i.e.: gender, age, place of residence, location of the workplace, professional promotion grade, education, completed field of study, having a preparation in the field of special education, seniority at school, type of school in which the teacher is employed, the dominant form of classes, the educational stage at which the teacher conducts the most classes, the taught subjects, experience in working with a student with disabilities and experience in dealing with people with disabilities in the family.

Research and requirement procedure

The survey was conducted in October and November 2022. Having received an ethical approval, the authors started the process of recruitment and sent invitation letters with a description of the project to 150 principals of schools that were randomly selected from three voivodeships situated in different parts of Poland. The draw was based on a list of educational institutions generated using the website Edubaza.pl (https://www.edubaza.pl/) (accessed 10 Oct. 2022). 46 principals answered the letters and agreed to take part in the project. The authors sent them individual invitations to teachers working in their schools. The invitations included information about informed consent to take part in the study, the aim of the study, and the procedure. The teachers who volunteered to participate used a link in Google Forms (Google, Mountain View, CA, USA) to the questionnaires. It took about 20 minutes to complete a survey. No personal details were collected. These were

asynchronous studies and offered the opportunity to take part in them at any time between October 2022 and November 2022.

The research was conducted via the Internet, which involved the need to adapt the Survey of Perceived Professional Teaching Competences (KPKZN) to this type of research (Byra & Kazanowski, 2015). The research technique was an online survey.

Respondents

The sample consisted of 416 Polish teachers working in mainstream, integrative and special schools (Table 1). As the initial teacher education model does not specify the place of employment both graduates of special education and graduates of other university courses with a teaching specialization can work in all types of schools: mainstream, special or integrative and teachers working in all types of schools have or had during their university years some experience in working with typically developing students), we assumed that the working environment could be a good basis for differentiating teachers' professional competences. This way we emphasize the importance of the context in which the competences of professionally active teachers develop.

Table 1. Sociodemographic characteristics of the group of surveyed teachers

Sociodemographic variables	Categories	Mainstream school (n = 287) n (%)	Special school (n = 79) n (%)	Integrative school (n = 50) n (%)	Total (n = 416) n/%
Gender	Female	259(90.24)	64(81.01)	47(94.00)	370(88.94)
	Male	28(9.76)	15(18.99)	3(6.00)	46(11.06)
Place of the residence	Rural area	106(36.93)	23(29.11)	12(24.00)	141(33.89)
	Small town	54(18.82)	6(7.60)	5(10.00)	65(15.63)
	Medium town	71(24.74)	41(51.90)	16(32.00)	128(30.77)
	Large town	56(19.91)	9(11.39)	17(34.00)	82(19.71)

Table 1 (continued)

Sociodemographic variables	Categories	Mainstream school (n = 287) n (%)	Special school (n = 79) n (%)	Integrative school (n = 50) n (%)	Total (n = 416) n/%
Work place	Rural area	123(42.86)	5(6.33)	1(2.00)	129(31.01
	Small town	44(15.33)	10(12.66)	13(26.00)	67(16.11)
	Medium town	68(23.69)	55(69.62)	19(38.00)	142(34.13)
	Large town	52(18.12)	9(11.39)	17(34.00)	78(18.75)
Level of education	Bachelor's degree	7(2.44)	2(2.53)	3(6.00)	12(2,89)
	Master's degree	247(95.47)	77(97.47)	46(92.00)	397(95.43)
	Doctoral degree	6(2.09)	0(0.00)	1(2.00)	7(1.68)
Declared preparation in the field of special education	Yes	169(58.89)	76(96.20)	44(88.00)	289(69.47)
	No	118(41.11)	3(3.80)	6(12.00)	127(30.53)
The dominant form of held classes	Individual	68(23.69)	38(48.10)	25(50.00)	131(31.49)
	Group	216(75.26)	40(50.63)	25(50.00)	281(67.55)
	No response	3(1.05)	1(1.27)	0(0.00)	4(0.96)
Experience in working with students with disabilities	Yes	219(76.31)	79(100.00)	50(100.00)	348(83.65)
	No	68(23.69)	0(0.00)	0(0.00)	68(16.35)

Source: Authors' research.

The average age of teachers working in mainstream schools was 40.73, in special schools – 39,28, and in integrative schools – 35.76. The average work experience for teachers working in mainstream schools was 13.83, in special schools – 10.99, and in integrative schools – 9.02.

Results

Data analysis

In the analysis of the assessment of the teachers' competences the Wilcoxon paired rank-order test was used. The rank biserial correlation coefficient for matched pairs (rc) was also determined. Kendall's tau and the rpb point-biserial correlation coefficient were used in the calculation of correlation coefficients of self-assessment scores with sociodemographic variables. All calculations were performed using the statistical package STATISTICA version 13. A default statistical significance level of $p < 0.05$ was assumed for each analysis.

The assessment of professional competences of the surveyed teachers to educate students with and without disabilities

Teachers, regardless of the place of work (mainstream/integrative/special school), rated their evaluation competences higher in the context of educating students with disabilities than in a relation to the education of typically developing students. In contrast, in the assessment of the other categories of competences, characteristics specific to the groups of teachers (working in different types of schools) appeared. Only teachers working in mainstream schools rated the level of all competence categories (except for evaluation competences) higher with respect to the education of students without disabilities compared to the education of students with disabilities ($p = 0.001$) (Table 2). On the other hand, teachers in integrative schools assessed their communicative, innovative, and psychological competences in a similar way, regardless of whether they related these competences to the education of students with or without disabilities.

However, among teacher in special schools, a similarity in the assessment of their communicative and substantive-methodological competences regardless of students' abilities/disabilities can be observed.

The magnitude of the effect for the observed differences was the highest in the case of the differences between the assessment of evaluation competences

Table 2. Assessment of professional competences to educate students with and without disabilities by the surveyed teachers in the scope of the measured categories

Competences	The teachers' place of work	Education of a student without disability		Education of a student with disability		Z	p	r_c
		M_{RANK}	Me	M_{RANK}	Me			
Evaluation competences	MS	134.02	28.00	137.55	31.00	7.081	0.001	0.49
	SS	37.65	28.00	37.61	32.00	7.200	0.001	0.94
	IS	23.30	29.50	23.58	34.00	5.116	0.001	0.84
Psychological competences	MS	130.85	41.00	133.80	40.00	4.061	0.001	0.30
	SS	36.90	40.00	36.34	42.00	2.151	0.032	0.23
	IS	22.98	41.50	22.42	42.00	1.642	0.101	0.21
Innovative competences	MS	137.46	35.00	138.81	33.00	6.914	0.001	0.47
	SS	38.22	36.00	37.86	36.00	2.441	0.015	0.29
	IS	24.50	36.50	23.98	36.50	1.015	0.310	0.24
Communicative competences	MS	126.99	32.00	131.10	31.00	7.125	0.001	0.51
	SS	35.66	32.00	33.16	33.00	0.994	0.320	0.07
	IS	21.54	33.00	21.72	33.00	0.501	0.614	0.09
Substantive-methodological competences	MS	133.00	45.00	136.97	41.00	10.326	0.001	0.67
	SS	37.23	43.00	36.65	43.00	1.362	0.173	0.31
	IS	22.66	47.00	23.34	45.00	2.090	0.037	0.42

Note: M_{RANK} – average rank; Me – median; r_c – rank two-series correlation coefficient for matched pairs.

MS – mainstream school, SS – special school, IS – integrative school

Source: Authors' research.

to work with students with disabilities and with students without disabilities in teachers in special schools It can be concluded that the assessment of evaluation competences to work with students with disabilities and the assessment of evaluation competences to work with students without disabilities do not differ as much in mainstream school teachers (r_c = 0.49) as in special and integrative school teachers (r_c = 0.94 and r_c = 0.84 respectively), where a very strong effect was observed.

In turn, for teachers in mainstream schools, the effect size indicates a strong relationship between the differences in the assessment of substantive-methodological competence (r_c = 0.67) and communicative competence (r_c = 0.51) to teach students with disabilities and to teach students without disabilities. However, in the case of special (rc = 0.07) and mainstream (r_c = 0.09) school teachers, the assessment of the communicative competence would hardly be related to the fact whether the competences relate to teaching students with disabilities or without disabilities.

General assessment of professional competence in education of pupils with (or without) disabilities

The analysis of the summary assessment of the measured competences indicated that students' disability (or lack of it) was the most significant for the perception of one's own competences in teachers at special schools (r_c = 0.66 – strong effect). The surveyed integrative school teachers obtained an average effect in this range (r_c =0.41) and the mainstream schools teachers – poor (r_c = 0.24) (Table 3).

Table 3. General assessment of professional competences for the education of students with (or without) disability by the surveyed teachers

Competences	The teachers' place of work	Education of a student without disability		Education of a student with disability		Z	p	r_c
		M_{RANK}	Me	M_{RANK}	Me			
General assessment of the measured competences	MS	143.75	20.90	143.70	20.47	3.523	0.001	0.24
	SS	39.80	20.50	39.42	21.80	5.092	0.001	0.66
	IS	25.34	21.50	24.94	21.75	2.534	0.011	0.41

Note: M_{RANK} – average rank; Me – median; r_c – rank two-series correlation coefficient for matched pairs; MS – mainstream school, SS – special school, IS – integrative school.

Source: Authors' research.

Statistically significant differences in the summative assessment of measured competences for educating students with and without disabilities

occurred in all groups of teachers. Only in the case of mainstream school teachers the assessment of professional competences decreased significantly when it was related to the education of students with disability (p = 0.001). However, in the case of teachers in special and integrative schools we can observe a significant increase in the assessment of competences in the field of education of students with disabilities compared to the assessment of competences for teaching students without disability (respectively: p = 0.001 and p = 0.011).

Correlations between the assessment of own competences to educate a student with disability and sociodemographic variables

The last analysis focused on the correlation between self-assessment of competence and demographic variables (Table 4).

Table 4. Correlations between the assessment of own competences to educate a student with disability and sociodemographic variables in the surveyed groups of teachers

Sociodemographic variables	School type	Correlation coefficient value[1]	p
Age	MS	-0.054	0.169
	SS	0.096	0.210
	IS	0.086	0.379
Work experience	MS	0.037	0.350
	SS	0.166	0.030
	IS	0.083	0.398
Place of residence	MS	-0.065	0.100
	SS	-0.001	0.987
	IS	0.004	0.968
School social environment	MS	0.023	0.563
	SS	-0.030	0.701
	IS	-0.085	0.385

Table 4 (continued)

Sociodemographic variables	School type	Correlation coefficient value[1]	p
Level of education	MS	0.007	0.861
	SS	0.018	0.819
	IS	-0.044	0.649
Gender	MS	0,140	0.018
	SS	-0.062	0.590
	IS	0.128	0.375
Declared preparation in the field of special education	MS	0.398	0.001
	SS	0.129	0.259
	IS	0.197	0.170
The dominant form of held classes	MS	-0.265	0.001
	SS	0.106	0.355
	IS	-0.100	0.492
Experience in teaching students with disabilities	MS	0.295	0.001
	SS	-	-
	IS	-	-

Note: MS – mainstream school, SS – special school, IS – integrative school, [1] – τ - Kendalla for the variables: age and work experiences, place of residence, school social environment, level of education; point-biserial correlation coefficient (rpb) for the variables: gender, declared preparation in the field of special education, the dominant form of held classes and experience in teaching students with disabilities.

Source: Authors' research.

Table 4 indicates that statistically significant correlations between the assessment of one's own professional competences and selected sociodemographic variables were found only in mainstream school teachers (variables: declared preparation in the field of special education, the dominant form of held classes, experience in teaching students with disabilities and gender) and special school teachers (variable: work experience).

Discussion

Teachers must be prepared to deal with all students, regardless of their abilities, needs or the type of institution in which they teach (special, integrative, mainstream). This requires the development of the necessary competences (Chrzanowska & Szumski, 2019; Zamkowska, 2019; Gajdzica, 2020; Kołodziej-czyk, 2020; Arvelo-Rosales et al., 2021; Durducoca, 2021). The current study presents an assessment of the level of own teaching competences in relation to students without and with disability in three forms of education: main-stream, integrative and special. Teachers in all forms of education generally assessed their professional competences regarding teaching students with disabilities favourably, which is in line with prior studies (Durducoca, 2021). Although there is evidence that methods and strategies used to teach typically developing students can be applied to teach students without disabilities (Mitchell, 2016), in the current study the overall assessment of the level of competence to teach students with disability turned out to be significantly lower than the assessment of the level of competence to teach students without disability only in the case of teachers in mainstream schools. Interestingly, this related to all but one distinguished dimensions of competences, i.e., communicative, psychological, substantive-methodological and innovative competences. It means that mainstream school teachers believed that they possessed lower communicative, psychological, innovation and instructional skills and competences necessary to effectively teach students with disabilities, which seems to be in line with other studies (Monahan et al., 2000). It was also established that the general self-assessment of competences to teach students with disability carried out by integrative and special school teachers was higher than their self-assessment of their competence in educating students without disability. Differences may result from the impact of work experiences related to work in different types of schools on the perception of one's own professional competences. Teachers working in mainstream schools have less experience in working with students with disabilities (23.69% declared that they did not have such experience at all), which may be related to a lower assessment of competence in this area. Unfortunately, this was also a group

that did not stand out for a higher assessment of competences in relation to the education of students without disabilities, which may suggest a generally lower level of preparation for the professional role. Little experience and negative or less favourable perception of own competences to teach students with disabilities among mainstream school teachers was indicated by other authors (Gajdzica, 2011; Bukvić, 2014; Kochanowska, 2015; Chrzanowska, 2021) as well. In one of the studies (Bukvić, 2014), 70% of respondents had no or little knowledge about teaching this group of students. In addition, it can be assumed that competences to teach students with disabilities in the case of some special school teachers develop both in the period preceding and during their professional work with students with disabilities. These circumstances may favour differences between teachers who have a special education background and teachers without such preparation (in this study it is 41.11% of teachers working in mainstream schools).

An interesting result in this study related to self-assessment of evaluation competences in the surveyed teachers. It turned out that not only in the group of special school teachers, but also in the groups of teachers of integrative and mainstream schools, they were higher in relation to the education of students with disabilities than in relation to the education of non-disabled students. It is not surprising that special educators rated their competences higher in this area – some of them were prepared to work with students with disabilities during their university years. However, when it comes to teachers of integrative and mainstream schools such a result may also suggest that teachers fail to see the complexity and importance of properly assessing students with disabilities. Such an explanation would be consistent with the results obtained by Durducoca (2021), who indicated that teachers in inclusive settings tended to evaluate all students using the same tools and the only adjustment they made was giving additional time to students with special educational needs. Thus, it seems not surprising that mainstream school teachers are ready to adjust assessment of students to their special educational needs (Mudło-Głagolska, 2021a; 2021b).

Summing up the analysis of the carried-out correlations, it can be stated that the main determinants of the assessment of professional competence in

the group of teachers employed in mainstream schools were: having a preparation in the field of special education, the form of classes conducted, and experience in working with students with disabilities. Among the teachers at special and integrative schools there were no people without experience in working with students with disability. Few reported a lack of preparation in special education – 3.8% of special school teachers and 12.0% of teachers in integrative schools as compared to 41.14% of mainstream schools teachers ($\chi^2 = 49.876$; $p < 0.05$). Such a situation may be the result of legal regulations in Poland (Regulation of the Minister of National Education of 1 August 2017) § 15 of this document specifies that teachers of special institutions must, among other things, be qualified to teach children and young people with a given type of disability. The results are in line with the results of another Polish study (Gajdzica, 2021), which suggest that the preparation of teachers to teach students with disabilities is strongly associated with their subjective assessment of professional competences. As Chrzanowska suggests (2018), it seems that special pedagogues are best prepared to follow the guidelines of inclusive education.

Most of the sociodemographic variables included in the analysis did not correlate with the assessment of own professional competences in the surveyed teachers, in relation to working with a student with disability.

This study did not confirm the existence of a significant relationship between the age of teachers and the assessment of own competences in respondents. In most of the studied groups this relationship turned out to be statistically insignificant. Only in the case of an integrative school the calculations show a very weak, positive, correlation ($\tau = 0{,}2$; $p = 0{,}035$). These results seem to be in line with the results of research conducted by Triviño-Amigo et al. (2022a; 2022b) and Durdukoca (2021), who indicated very weak or no correlations between work experience and assessment of preparation for work in an inclusive school setting. What is important, however they are not confirmed either in Bukvić's (2014) analyses, who showed that younger teachers rated their competences higher, explaining this correlation with changes in the curricula of future teachers or Malinen's et al. (2013), who indicated that age was positively correlated with teachers' efficacy in managing

behaviour, and suggested that older respondents on an average relied more on their ability to get students to follow school rules.

In the current study, only in the group of mainstream school teachers there was a statistically significant relationship between gender and the assessment of own competence to educate students with disabilities, and it pointed to a very weak relationship between these variables ($rpb = 0.14$; $p = 0.018$). In the other groups no such relationship was found, which seems to be consistent with the results obtained by Triviño-Amigo et al. (2022a) and Durdukoca (2021), who showed no differences in the analysed dimensions of preparation for inclusion between women and man.

The current study has several limitations. Firstly, it was conducted in a cross-sectional scheme. This limited the possibilities to extrapolate about the direction of observed relationships between competences to teach students with and without disabilities as well between the competences and sociodemographic variables. In the future, the present results should be verified in a longitudinal scheme. Secondly, the present study was conducted in a relatively homogenous group, limited to only one nationality and one culture. Self-assessment of competences may differ in different nationalities and cultures, and a more diverse sample could give a new insight into this phenomenon.

Conclusions

When thinking about inclusive education, it is worth paying attention to the attitudes and competences of teachers among others. "A condition for functioning of inclusive education – in a school ready to overcome barriers that may affect the effectiveness of teaching each student – is an active participation in this process of all teachers and abandon the view that only professionals are responsible for a child with special educational needs" (Szczepkowska, 2019, p. 4).

Based on the results of this study, we make the following recommendations for practice and further research. First of all, since the mainstream school teachers' self-perceived competences to work with students with disabilities

were lower than their self-perceived competences to work with typically developing students, we believe that from a pedagogical point of view it is an important goal for teacher university education to develop and to improve competences. Therefore, it is necessary to include modules on inclusive education and inclusive didactics in courses for mainstream school teachers. Nonetheless, although these modules are increasingly considered as core elements in teacher training programs, and courses on inclusive education are often mandatory for teachers in training across Europe (Pit-ten Cate et al., 2018), it seems that there is a dearth of training courses about such topics for teachers who already work in schools. Previous research indicates that participation in such training had strong positive effects on participants' self-efficacy for understanding and supporting students with disabilities (Murray et al., 2014).

These studies indicate the need to develop professional competences for educating students with disability in mainstream schools teachers. The expected result of the study on the competences possessed is not only that they are very highly rated, but also that there are no differences in preparation for the teaching of students with and without disabilities. Considering the results obtained, this result still seems very distant, as in the group of teachers of mainstream schools, significant differences are found with regard to the assessment of all types of measured competences. Possibilities in this regard are indicated by the results of the group of teachers of special and integrated schools, who rated some of their professional competences at the same level for both the teaching of students with and without disabilities.

Teachers should be equipped in strong, professional competences (Selvi, 2010). A teacher teaching student with disability must have competences (i.e., knowledge, skills, and attitudes) that will allow him or her to be a teacher in various types of institutions and develop skills that will help him or her take responsibility for all students and guide their learning (Arvelo-Rosales et al., 2021).

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