



## МЕЖДУНАРОДНЫЙ ОПЫТ ИНТЕГРАЦИИ ОБРАЗОВАНИЯ / INTERNATIONAL EXPERIENCE IN THE INTEGRATION OF EDUCATION

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### Teachers' Attitudes towards Inclusive Education in Kazakhstan

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**Introduction.** The inclusion of students with special educational needs in regular schools is currently one of the most important issues on the agenda of national and international education communities. A positive attitude of teachers to inclusive education is a factor of its effective implementation. The purpose of this study was to investigate the attitude of teachers to inclusive education in the Republic of Kazakhstan and to determine the factors influencing their positive attitude towards inclusion.

**Materials and Methods.** The sample consisted of 416 teachers of general secondary schools in the Pavlodar region of the Republic of Kazakhstan. The Sentiments, Attitudes, and Concerns about Inclusive Education Revised scale feedback form was used. For the processing of the results of the survey, nonparametric statistics (Spearman's correlation coefficient) and multiple regression analysis were used.

**Results.** A general neutral attitude of teachers towards inclusion was revealed. The experience of interaction between teachers and people with special educational needs does not contribute to the formation of their positive attitude towards inclusion. Educators – people who work in rural schools and are confident in teaching children with special education needs – have the most positive attitude toward inclusion.

**Discussion and Conclusion.** A more detailed analysis of the respondents' answers indicates the disinclination of teachers to implement inclusive education and the need for special training of teachers to work with children with special education needs that will increase their confidence in teaching children with special educational needs and create a positive attitude towards inclusion. Prospects for the study are to further explore attitudes of subject teachers, special education teachers, and providers of psychological and pedagogical support to inclusion in Kazakhstan and the impact of special training on the attitude of teachers to inclusion. The materials of the article will be useful to researchers interested in the problem of inclusive education, especially its condition in the Republic of Kazakhstan.

**Keywords:** inclusive education, teacher, attitude, special educational needs, Kazakhstan

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## Отношение учителей к инклюзивному образованию в Казахстане

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**Введение.** Включение учащихся с особыми образовательными потребностями в общеобразовательные школы является одним из актуальных и важных вопросов, стоящих перед сообществом образования на национальном и международном уровне. Положительное отношение учителей к инклюзивному образованию выступает одним из факторов его эффективной реализации. Целью данного исследования было изучение отношения учителей к инклюзивному образованию в Республике Казахстан и определение факторов, влияющих на их позитивное отношение к инклюзии.

**Материалы и методы.** Выборка состояла из 416 педагогов общеобразовательных школ Павлодарской области Республики Казахстан. В исследовании был использован опросник шкалы чувств, отношения и опасений по поводу инклюзивного образования (SACIE-R). Для обработки результатов исследования применялись методы непараметрической статистики (коэффициент корреляции Спирмена) и множественный регрессионный анализ.

**Результаты исследования.** По итогам проведенного исследования выявлено общее нейтральное отношение учителей к процессу включения исследуемых учащихся в педагогический процесс. Опыт взаимодействия учителей с людьми с особыми образовательными потребностями не способствует формированию их позитивного отношения к инклюзии. Педагоги-мужчины, работающие в сельских школах и уверенные в обучении детей с особыми образовательными потребностями, более положительно настроены к инклюзии. Анализ ответов респондентов свидетельствует о неготовности педагогов к реализации инклюзивного образования и необходимости специальной подготовки педагогов к работе с детьми с особыми образовательными потребностями в условиях инклюзии.

**Обсуждение и заключение.** Перспективы исследования заключаются в дальнейшем изучении отношения педагогов (предметников, специальных педагогов, педагогов психолого-педагогического сопровождения) к инклюзии в стране, влияния специальной подготовки на отношение педагогов к инклюзии. Материалы статьи будут полезны исследователям, интересующимся проблемой инклюзивного образования, особенно его состоянием в Республике Казахстан.

*Ключевые слова:* инклюзивное образование, учитель, отношение, особые образовательные потребности, Казахстан

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### Introduction

Including all children in education is the major challenge facing educational systems around the world, in both developing and developed countries [1]. The basis of inclusive education is an ideology that excludes discrimination against children and ensures equal treatment of all people, and, at the same time, creates special conditions for children with special educational needs.

Based on the assumption that the successful implementation of inclusive practices largely depends on the positive attitude of teachers towards it, a large amount

of research was aimed at studying the attitude of teachers to inclusion [2; 3].

The attitude of teachers towards inclusion has been widely studied in different countries: Finland, Australia, South Africa, Ireland, China, Greece, Singapore, Bangladesh, Norway, Zimbabwe, and others. Most of the research was conducted in the United States [4; 5]. However, there are no studies of the attitude of teachers towards inclusive education in the Republic of Kazakhstan.

Inclusive education in Kazakhstan has been developing since 2000, however, the active promotion of inclusion began in 2011 with the adoption of the State Pro-



gram for the Development of Education for 2011–2020<sup>1</sup>.

Inclusive education is a process that provides equal access to education for all students, taking into account special educational needs and individual capabilities<sup>2</sup>. Inclusive education in the country implies two forms of its implementation: full and partial inclusion. Full inclusion is realized through the education of children with special educational needs (SEN) in general education classes. Partial inclusion means teaching a child with SEN in a special classroom when they are involved in educational and training activities of a general school or his individual tuition at home, visiting individual lessons in a class with the majority of students<sup>3</sup>.

There are 96 555 children with SEN of school age in Kazakhstan. They are:

- 13 897 (14.4%) children at special schools;
- 13 333 (13.9%) children in special classes of general education schools;
- 11 390 (11.8%) children tutored at home;
- 2 517 (2.6%) children in private educational institutions;
- 2 558 (2.7%) children in vocational schools and colleges;
- 45 104 (46.7%) children in ordinary classes of general education schools, among them 32.9% without correctional and pedagogical support, 13.8% have correctional and pedagogical support;
- 7 656 (7.9%) children with SEN who are not covered by the education system<sup>4</sup>.

It should be noted that in various documents the data on the number of children covered by inclusive education are different.

“The amount of reliable data on the number of children with disabilities and features of the development is extremely small”<sup>5</sup>.

The latest measures of inclusive policy are aimed at increasing the number of pupils with SEN and disabilities attending general education school. In this connection, the following questions arise: Are teachers of general education schools ready for such changes and what is their attitude towards inclusive education in their schools? What are the factors that determine the positive attitude of teachers towards inclusion? Our research focuses on the search for answers to these questions. It is important to identify the existing attitudes of teachers to more effectively address the problem during the period of their preparation and professional development.

### Literature Review

A positive attitude towards inclusion is considered one of the most influential factors and even a prerequisite for the success of inclusive education [4; 6], which has increased the interest of researchers in this topic.

All research in this area can be divided into two large groups. The first group of studies is aimed at studying the attitude of pre-service teachers to inclusion. Moreover, one part of them is cross-cultural research [7; 8], and the other part is aimed at studying pre-service teachers' attitudes in specific countries [9–11]. In a study by P. Subban and D. Mahlo, pre-service teachers in Australia and South Africa show a positive attitude towards inclusion. Most respondents revealed that they intentionally

<sup>1</sup> [Ministry of Education and Science of the Republic of Kazakhstan. State Programme of Education Development in the Republic of Kazakhstan for 2011–2020]. Astana: Ministry of Education and Science of the Republic of Kazakhstan; 2010. Available at: <https://nao.kz/blogs/view/2/105> (accessed 11.06.2019). (In Russ.)

<sup>2</sup> [Law of the Republic of Kazakhstan “On Education”]. Astana: Akorda, July 27, 2007. Available at: [http://online.zakon.kz/Document/?doc\\_id=30118747#pos=1972](http://online.zakon.kz/Document/?doc_id=30118747#pos=1972) (accessed 30.05.2019). (In Russ.)

<sup>3</sup> [Ministry of Education and Science of the Republic of Kazakhstan. Guidelines for the Organization of an Integrated (Inclusive) Education of Children with Developmental Disabilities 2009]. Astana: Ministry of Education and Science of the Republic of Kazakhstan. Available at: <http://special-edu.kz/index.php?do=static&page=nprbase> (accessed 01.06.2019). (In Russ.)

<sup>4</sup> Nogaibekova G., Zhumazhanova S., Korokikh E. [Monitoring Framework for Inclusive Education in the Republic of Kazakhstan]. Astana: Information and Analytical Center; 2017. 185 p. Available at: [http://iac.kz/sites/default/files/edinaya\\_ramka\\_monitoringa\\_inklyuzivnogo\\_obrazovaniya.pdf](http://iac.kz/sites/default/files/edinaya_ramka_monitoringa_inklyuzivnogo_obrazovaniya.pdf) (accessed 01.06.2019). (In Russ.)

<sup>5</sup> OECD. Reviews of National Policies for Education Kazakhstan, Kyrgyz Republic and Tajikistan 2009. Students with Special Needs and Those with Disabilities. 2009. Available at: <http://www.oecd.org/education/school/43851447.pdf> (accessed 08.06.2019). (In Eng.)

develop their skills and expand their knowledge as a means of improving their proficiency in inclusive education [7]. Pre-service teachers in Mexico have varied perspectives regarding their dispositions towards inclusion and their preparedness for teaching children with SEN in regular schools. The researchers concluded that to improve teachers' dispositions towards including students with SEN, pre-service teachers should be provided with the experience of teaching in inclusive classrooms [11]. A review of 23 studies/surveys published between 1994 and 2017 showed that future teachers have a largely positive attitude towards inclusion. In addition, a conclusion was made about the positive impact of special training of future teachers in the period of their study at the university on the formation of a positive attitude towards inclusion [5].

The second group of studies is aimed at studying attitudes towards the inclusion of in-service teachers, identifying factors affecting this attitude. For example, B. Paju et al. indicate that the perception of special teachers in Finland differs significantly from the class teachers of primary schools and secondary school teachers [12]. Special teachers feel great confidence in teaching children with SEN. Consequently, effective cooperation between special and general education will contribute to the successful learning of children with SEN in practice. In addition, this study did not reveal the relationship between the gender of the respondents and their attitude towards inclusion.

A study by M. Chitiyo et al. aims to identify the attitudes of school teachers of general and special education in Zimbabwe to inclusion and their needs for professional development in teaching children with SEN [13]. At the same time, the link between the attitude of teachers to inclusion and their place of work (rural or urban area) was not found. However, there are differences in the definition by rural and urban teachers of the

most important topics of professional development in teaching children with SEN. E. Avramidis and E. Kalyva, studying the attitude of Greek primary school teachers to inclusion, found a more positive attitude to the inclusion of teachers who have experience in teaching children with SEN than their colleagues with little experience or not having it [14]. The results of a study by T. Štemberger and V. R. Kiswarday show a positive attitude towards the inclusion of teachers in Slovenia. At the same time, preschool teachers are more positive than primary school teachers and having experience working with children with SEN is associated with a less positive attitude towards inclusion [15].

In addition, there are also surveys whose respondents are pre-service and in-service teachers. For example, H. Savolainen et al. state a neutral attitude towards the inclusion of teachers in South Africa and Finland. At the same time, the sentiment of Finnish teachers to interact with people with SEN and to inclusion in general is more positive than that of South African teachers [16].

The aim of our study was to determine the attitude of teachers to inclusion in the Republic of Kazakhstan, their willingness to accept children with SEN in their class and to identify factors affecting the attitude of teachers to inclusion.

### Materials and Methods

The survey involved 416 teachers of general education schools in the Pavlodar region of the Republic of Kazakhstan. 333 questionnaires were filled out in Russian, 83 – in Kazakh. Table 1 shows information about the demographic data of teachers participating in the study.

The predominance of rural teachers over urban ones is explained by the specifics of the educational space of the Republic of Kazakhstan: the number of rural schools is more than 70% greater than the number of urban schools<sup>6</sup>.

<sup>6</sup> [National Report on the State and Development of the Education System of the Republic of Kazakhstan, 2016]/ S. Irsaliyev [et al.]. Astana: Informational-Analytical Center JSC; 2017. 482 p. Available at: <http://iac.kz/ru/project/nacionalnyy-doklad> (accessed 02.06.2019). (In Russ.)



Table 1. Data on survey participants

	Characteristics	Number (%)
Workplace	Primary school	98 (23.6)
	Secondary school	318 (76.4)
Gender	Male	72 (17.3)
	Female	344 (82.7)
Age	25 years or less	49 (11.8)
	26–35 years	120 (28.8)
	36–45 years	124 (29.8)
	46 years or more	123 (29.6)
Level of education	Secondary vocational	45 (10.8)
	Higher (Bachelor's Degree)	358 (86.1)
	Master's Degree	13 (3.1)
Experience of interaction with a person with special needs	Yes	161 (38.7)
	No	255 (61.3)
Special training in teaching people with special needs	No	324 (77.9)
	A little	75 (18.0)
	Good level (not less than 40 hours)	17 (4.1)
Knowledge of legislation and policies of the Republic of Kazakhstan regarding children with special needs	Don't know anything	25 (6.0)
	A little	46 (11.1)
	Average	183 (44.0)
	Good	142 (34.1)
	Excellent	20 (4.8)
Confidence in teaching children with special needs	Not at all	39 (9.4)
	A little confident	89 (21.4)
	Average confidence	150 (36.0)
	Almost confident	86 (20.7)
	Completely confident	52 (12.5)
Experience of teaching children with special needs	No	205 (49.3)
	A little	167 (40.1)
	Good level (not less than 30 full days)	44 (10.6)
Location of school	Countryside	334 (80.3)
	City	82 (19.7)

“The Sentiments, Attitudes, and Concerns about Inclusive Education Revised Scale” [17] is a 15-point questionnaire designed to identify teachers' attitudes towards inclusion. Respondents rated their agreement with the statements on a 4-point Likert scale (1 = strongly disagree, 4 = strongly agree). The questionnaire

also contains 3 specific subscales, which measure various aspects of the attitudes towards inclusion. The Sentiments subscale (5 item;  $\alpha = .67$ ) assesses sentiments when interacting with people with SEN. The Attitudes subscale (5 item;  $\alpha = .68$ ) measures the acceptance by teachers of students with the SEN. The Concerns

subscale (5 item;  $\alpha = .6$ ) focuses on the teacher’s personal concerns about SEN students’ inclusion in their own class.

The calculation of the average score for all 3 subscales is a total SACIE-R estimate. The overall Cronbach Alpha coefficient is .751, which is a good indicator of reliability.

With regard to the scale of sentiments and concerns, reverse coding was applied so that the maximum score had a positive value for all questions in the questionnaire and characterized a positive attitude towards inclusion. In addition to SACIE-R to the most important characteristics (gender, age, level of education, etc.), we asked

participants to indicate the area where they work (city or countryside) to determine if there is a difference in attitude to the inclusion of teachers of rural and urban schools.

### Results

The general attitude towards inclusive education among teachers is neutral  $M = 2.59$  (Table 2).

The subscale of sentiments ( $M = 2.76$ ) is the most important, which shows that teachers are not afraid to interact with people with SEN ( $M = 3.09$ ), they are not afraid to look them straight in the eyes

**Table 2. Means and standard deviations for scores on the SACIE-R Scale**

Item	Mean	Standart deviation
The Sentiments subscale	2.76	0.62
I am afraid to look a person with a disability straight in the face	3.19	0.84
I tend to make contacts with people with disabilities brief and I finish them as quickly as possible	3.09	0.90
I find it difficult to overcome my initial shock when meeting people with severe physical disabilities	3.00	0.86
I dread the thought that I could eventually end up with a disability	2.25	1.09
I would feel terrible if I had a disability	2.25	1.03
The Concerns subscale	2.55	0.58
I am concerned that I will be more stressed if I have students with disabilities in my class	2.86	0.88
I am concerned that students with disabilities will not be accepted by the rest of the class	2.67	0.94
I am concerned that my workload will increase if I have students with disabilities in my class	2.54	0.98
I am concerned that I do not have knowledge and skills required to teach students with disabilities	2.37	0.93
I am concerned that it will be difficult to give appropriate attention to all students in an inclusive classroom	2.30	0.89
The Attitudes subscale	2.45	0.63
Students who frequently fail exams should be educated in regular classes	2.77	0.99
Students who have difficulty expressing their thoughts verbally should be educated in regular classes	2.65	0.98
Students who are inattentive should be educated in regular classes	2.45	0.90
Students who need an individualized academic program should be educated in regular classes	2.29	0.94
Students who require communicative technologies (for example Braille and sign language) should be educated in regular classes	2.11	0.98
Total SACIE-R	2.59	0.45



( $M = 3.19$ ), they are not shocked meeting with people with severe physical disabilities ( $M = 3.00$ ). However, they are a little frightened by the thought about the possible presence of disability in oneself ( $M = 2.25$ ,  $M = 2.25$ ).

The smallest value is the attitudes subscale ( $M = 2.45$ ). Teachers are more ready to accept students in their class who find it difficult to express their thoughts verbally ( $M = 2.65$ ), as well as students who often have difficulty in examinations ( $M = 2.77$ ). However, they are not ready to accept students in their class who require communication technologies ( $M = 2.11$ ), as well as students who need an individualized curriculum ( $M = 2.29$ ).

The subscale of concerns has an average value of  $M = 2.55$ . Teachers are concerned that it will be difficult for them to give appropriate attention to all students in the inclusive classroom ( $M = 2.30$ ), and the lack of the necessary knowledge and skills to teach children with disabilities ( $M = 2.37$ ). The ability to be stressed when there are students with disabilities in the classroom is less troubling to them ( $M = 2.86$ ).

The bivariate relationships between the predictor variables were explored using Spearman's correlation (Table 3).

Table 3 provides a statistically significant correlation of such demographic factors as gender and school location with SACIE-R subscales. This means that rural educators are more positive in relation to inclusion than their urban counterparts ( $r = -.131$ ,  $p < .01$ ). Men are more positive about people with SEN than women ( $r = -.144$ ,  $p < .01$ ).

Professional factors (interaction with people with SEN, availability of special training, knowledge of policy, level of confidence, experience in teaching children with SEN) all statistically significantly correlate with SACIE-R subscales. At the same time, interaction experience is negatively correlated with all 3 SACIE-R subscales ( $r = -.223$ ,  $p < .01$ ,  $r = -.190$ ,  $p < .01$ ,  $r = -.177$ ,  $p < .01$ ). This means that the longer the experience of interaction

between teachers and people with the SEN, the less positive is their attitude towards inclusion. Significant correlations were found between the confidence level and the 3 SACIE-R subscales ( $r = .271$ ,  $p < .01$ ,  $r = .267$ ,  $p < .01$ ,  $r = .275$ ,  $p < .01$ ).

A positive correlation is observed between the presence of special training, knowledge of policy, the presence of experience in teaching children with SEN to teachers and 3 SACIE-R subscales. To determine the degree of the interrelation of demographic and professional factors with the perception of inclusion by teachers, a multiple regression analysis was conducted (Table 4). Factors having a statistically significant correlation with the SACIE-R subscales were combined into one block. Variable school location, gender, interaction experience, knowledge of policy, special training, confidence and training experience were used. The regression made use of 7 predictors. The access value for predictors ranges from 0.50 to 0.97, which exceeds the recommended value of 0.10<sup>7</sup>. A high tolerance value indicates the absence of multicollinearity among predictors.

A multiple regression analysis revealed that the model explained 22% of the variance of the Total SACIE-R scale. The model is statistically significant  $F(7, 408) = 17.83$ ,  $p < .001$ .

Three independent variables are significant predictors of teachers' positive attitudes towards inclusion: gender, school location, and confidence in teaching children with SEN. Educators are men who work in rural schools and confident in teaching children with SEN. They have the most positive attitude toward inclusion.

### Discussion and Conclusion

This study demonstrates the neutral attitude of teachers towards inclusive education, their concern about the lack of necessary knowledge and skills to teach children with SEN and the difficulty of distributing attention to all students in an inclusive classroom. This is confirmed by

<sup>7</sup> Tabachnick B., Fidell L.S. Using Multivariate Statistics Boston. MA: Allyn & Bacon; 2001. (In Eng.)



**Table 3. Spearman's correlation between predictors and SACIE-R subscales**

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Workplace	1.000												
2 Secondary School location	-.024	1.000											
3 Gender	-.194**	.147**	1.000										
4 Age	-.023	.166**	.139**	1.000									
5 Education	.210**	.117*	-.060	.024	1.000								
6 Interaction	.047	.046	-.011	-.106*	-.074	1.000							
7 Training	-.040	-.023	-.074	-.001	.082	-.395**	1.000						
8 Knowledge of policy	.005	-.048	.069	.225**	.121*	-.348**	.329**	1.000					
9 Level of confidence	-.060	-.082	.065	.132**	.119*	-.410**	.370**	.617**	1.000				
10 Experience in teaching	-.066	-.028	.059	.150**	.114*	-.556**	.478**	.347**	.503**	1.000			
11 The Concerns subscale	.081	-.119*	-.108*	-.031	.009	-.223**	.168**	.153**	.271**	.197**	1.000		
12 The Sentiments subscale	.021	-.169**	-.144**	-.006	-.059	-.190**	.101*	.176**	.267**	.146**	.549**	1.000	
13 The Attitudes subscale	.008	-.131**	-.047	.064	-.041	-.177**	.208**	.184**	.275**	.185**	.084	.130**	1.000

Note: \*\* Correlation is significant at the 0.01 level (2-tailed), \* Correlation is significant at the 0.05 level (2-tailed).



Table 4. Multiple Regression Analysis Results

Variable	R <sup>2</sup>	F	Adjusted R <sup>2</sup>	Predictors	β	Significance
Total SACIE-R	0.2	17.83***	0.22	Gender	-.147	.001
				Level of confidence	.304	.000
				Location of school	-.146	.001
The Sentiments	0.2	10.47***	0.13	Gender	-.149	.001
				Level of confidence	.298	.000
				Location of school	-.118	.010
The Attitudes subscale	0.1	8.39***	0.11	Training	.119	.032
				Level of confidence	.171	.007
				Location of school	-.101	.028
The Concerns subscale	0.1	8.97***	0.11	Gender	-.117	.011
				Level of confidence	.217	.001
				Location of school	-.102	.026

Note: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

the results of international studies on the prevalence of neutral or negative attitudes of teachers towards inclusion, combined with concerns that are quite common in the practice of inclusive education [3].

With a general positive perception of people with SEN, teachers are critical of the idea of inclusion, because they are not ready to accept in their class children who need an individualized curriculum and children with complicated disorders.

Despite the fact that inclusive education in Kazakhstan has been developing since 2000, more than 70% of the surveyed teachers note the lack of necessary training for teaching children with SEN, which indicates a slow development of inclusive education in the country. Research in the field of inclusive education also notes that changes in teacher education are insufficiently slow [18] and teachers often do not feel ready to teach children with SEN [19; 20].

A negative correlation was found between the interaction of teachers with people with the SEN and their attitude toward inclusion. C. Forlin and D. Chambers also reported that the teachers who interacted with people with the SEN the most were more concerned and less favorable in supporting inclusion [21].

In order to determine the significant factors and the degree of their relationship with the perception of inclusion, a multiple regression analysis was conducted using 7 prognostic variables. Of these only 3 variables emerged as significant predictors of teacher attitudes toward inclusive education – school location, gender, and confidence in teaching children with the SEN. The model explained 22% of the total variance of the dependent variable SACIE-R.

Rural school teachers are more positive about inclusion than their urban counterparts. This can be explained by the specifics of rural society in which people know each other well and the specifics of rural schools. Rural teachers have greater tolerance towards children with SEN and disability [22].

Most studies suggest that female teachers have a more positive attitude towards inclusive education than their male counterparts [23–25]. In our study male teachers are somewhat more positive about inclusion than female teachers are. Perhaps this is due to the fact that in the Republic of Kazakhstan men are mainly teachers of physical education and vocational training, who are more focused on the development of students rath-

er than the formation of subject knowledge. In T. Saloviita's study, subject teachers who place greater emphasis on the subject and are responsible for learning outcomes are less interested in inclusion [26]. However, this position is hypothetical, and more research is needed to substantiate this conclusion.

The teachers' confidence in teaching children with SEN has a positive effect on their attitude towards inclusive education. A similar result was obtained in K. Poon et al's study [27].

Since the neutral attitude of teachers may have undesirable consequences for pupils with SEN [28; 29], it is necessary to

carry out purposeful work to improve the competence of teachers in working with children with SEN.

Teacher training is a key lever for the effective implementation of inclusive policies and practices. The philosophy of inclusive education requires the continuing professional development of the teacher in order to meet the diverse needs of children with SEN [30]. Therefore, for the effective implementation of inclusive policies in the Republic of Kazakhstan, it is necessary to provide proper training for teachers, including key competencies for working in inclusive classes and strengthen its practical component.

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