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Development of inclusive education in the Republic of Kazakhstan: an inside view (case of the Karaganda region)

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In Kazakhstan, in the process of inclusive education, which ensures equal access to education for all children, taking into account their particular educational needs, priority is given to children who need special conditions. The number of such children in general education schools is steadily growing. However, the medical model continues to dominate in general education schools, and the state and public potentials for solving the problems of inclusion are insufficiently combined. The purpose of study is to evaluate a system of conditions for the introduction of inclusive education in general education schools in Kazakhstan (case of the Karaganda region). The system includes organizational and educational, scientific and methodological, staffing, regulatory and legal, financial, material and technical, and time-related conditions temporal conditions. The main research tool is the process approach to the quality management system. In the quality management system, the process of inclusive education is assessed in terms of meeting the educational needs of the child. The process approach allows us to design a model of the system of conditions for the functioning of the inclusive education process with a feedback mechanism. The research used methods of review and content analysis of open sources of government departments and organizations that determine the nature and regulate the content of the activities of general education schools in Kazakhstan in terms of inclusive education, as well as the collection and analysis of data from statistical reports of educational organizations of the Karaganda region. It is established that the existing process of inclusive education is a combination of general and special education processes. The established system of special conditions is insufficient, and work is underway to improve it. An attempt to create a qualitatively new "product" (inclusive education) using traditional approaches to general secondary education slows down this process. The lack of an inclusive approach to general secondary education hinders the development of inclusive education and the modernization of general secondary education in general. Focusing on meeting the special educational needs of all children, including those in need of special conditions, will significantly improve the quality of education in Kazakhstan's general education schools.

KEYWORDS

Kazakhstan, inclusive education, particular educational needs, the system of conditions, special conditions, modernization of education

1 Introduction

Inclusive education has been a key trend in the development of national education systems since the early 21st century. According to the Organization for Economic Co-operation and Development, inclusive education plays a vital role in alleviating poverty and addressing discrimination in all its forms (UNESCO, 2017). In 1994, the conceptual framework for inclusive education was proclaimed at the World Conference on Special Needs Education in the “Salamanca Statement on Principles, Policies and Practices in Special Needs Education” (UNESCO, 1994).

In 2024, the global education community celebrated the 30th anniversary of the Salamanca Statement. Commenting on the role and significance of the Salamanca Statement, Justine Sass said: “Many countries have adopted laws and policies to promote inclusive education”. Educators, policy makers, parents and communities have recognized the value of education that promotes diversity, equality and social cohesion (UNESCO, 2024c). Even today, the development of education policies in many countries is guided by the realization of one of the principles of the Salamanca Statement: ‘Inclusive mainstream schools are the most effective means of challenging discriminatory attitudes, creating welcoming communities, building inclusive societies and achieving education for all’ (UNESCO, 2024a).

Kazakhstan has been a member of the United Nations since 1992, and compliance with the principles of inclusive education is one of the priorities of its educational policy. It is expected that investing in inclusive education today will have a positive impact on the economy and human potential of the state in the future. In 2011, the Law “On Education” of the Republic of Kazakhstan introduced the concept of “inclusive education”. After a number of changes, the following definition is currently effective: “inclusive education—is a process ensuring equal access to education for all students taking into account particular educational needs and individual opportunities” (Adilet, 2007a). Starting from that, the active development of inclusive education began in general education schools in Kazakhstan (Makoelle, 2020; Kenzhakimova and Kurmanzhanova, 2015; National Academy of Education named after I. Altynsarin, 2020).

However, it is important to recognize that while three decades of inclusive education development in the world has led to an increased focus on children with particular needs, they are far from being fully addressed (Mu, 2020). In their multi-country study, Deroncele-Acosta and Ellis (2024) identified eight sets of challenges faced by those involved in inclusive education, including: lack of resources, teacher training, stigma and prejudice, effectiveness of inclusive policies, family cooperation and involvement, flexible curriculum and inclusive assessment, diversity of needs, and inclusive awareness (Deroncele-Acosta and

Ellis, 2024). There is a “presence of special support systems; poor allocation of finances and resources, as well as uncoordinated actions” (Messiou, 2016). Like most countries around the world, Kazakhstan has also faced a number of similar problems, as evidenced by the following research results by foreign and domestic scientists.

Human rights research in Kazakhstan by Human Rights Watch (2019) found that individual children in need of special conditions attend general education schools, but many of them are segregated in special schools, in separate classrooms, or are home-schooled (Human Rights Watch, 2019). According to the results of a study by the National Scientific and Practical Center for Correctional Pedagogy of Kazakhstan, a mechanical transfer of approaches to educating kids with special needs to general education schools was found identified (National Scientific and Practical Center for the Development of Special and Inclusive Education, 2022).

Some problems of introducing the ideas of inclusion into the educational process in the period from 2020 to 2023 have also been identified by Kazakhstani scientists, namely:

- reluctance of teachers to implement inclusive education without special training (Agavelyan et al., 2020; Yusupova and Isabaev, 2021);
- misconceptions of teachers about inclusion: “silent sitting is a normal alternative to participation in the school process” (Lukyanchuk, 2024);
- deficit of specialists to support children in need of special conditions (Turlubekova and Bugubayeva, 2021);
- poor career guidance among children in need of special conditions (Allayarova and Oleksyuk, 2023).

In their study, Abdina et al. (2023) analyzed the development of inclusive education from a philosophical perspective emphasizes the importance of fostering a positive societal attitude toward individuals with specific educational needs. It was found that in Kazakhstan, there is a lack of clear structuring and detailed terminology regarding inclusive education. Additionally, Makoelle (2020) highlighted the necessity of creating a glossary in Kazakhstan that aligns with the values and principles of inclusive education. Furthermore, similar to many European countries, there is a lack of clarity about what inclusive education means (UNESCO, 2024b).

Thus, although the theory and practice of inclusion are developing in Kazakhstan, there is a significant gap between the desired and actual state of inclusive education. The segregation (medical) model continues to dominate in Kazakhstan’s general education schools (National Academy of Education named after I. Altynsarin, 2020). Although there is public interest in inclusive education in Kazakhstan (Akhmetova et al., 2022; Information Bureau, 2021; NUR.KZ, 2018; Rollan and Somerton, 2021), the fusion of state and public efforts to address inclusion issues has yet to be achieved (UNICEF, 2024). The existence of a gap between official data and the real situation of inclusive education is confirmed by publications of Kazakhstani media (Information Bureau, 2022; In business, 2023).

Undoubtedly, the revealed insufficiency of the existing inclusive education system in Kazakhstan requires effective measures to fill it. In the studies we have studied, individual problems of inclusive

Abbreviations: ISC, Inclusion Support Cabinet; NAE, National Academy of Education; NSPK DSIE, National Scientific and Practical Center for the Development of Special and Inclusive Education; NU Athens, National University of Athens; OPPC, Office of Psychological Pedagogical Correction; PMPC, Psychological-Medical-Pedagogical Consultation; RCEC, Research Center for Examination and Certification; SLTD, Savvy Business sLTD; UNESCO, United Nations Educational, Scientific and Cultural Organization.

education are considered outside of their interrelation with others. In fact, each proposed action to solve a particular problem is tactical in nature, without providing strategic solutions. In our opinion, a holistic approach to the study of the problems of inclusive education discussed above will allow us to identify the root because that generates them. We are convinced that the research should be based on a rethinking of the current education system in order to achieve the following result: “schools have become more student-oriented and contributed to the comprehensive development of the child” (Darling-Hammond, 2024).

So, we are interested in the following research questions.

- What measures have been taken in Kazakhstan for the functioning and development of inclusive education?
- To what extent do the measures taken meet the system of conditions necessary for the inclusion of children with particular needs in the educational process of regular schools?
- What is the reason and what should be done to bridge the gap between the desired and actual conditions of inclusive education in Kazakhstan?

Thus, the purpose of this study is to analyze and assess the state of the system of conditions created in Kazakhstan for the functioning and development of inclusive education in the context of UNESCO's approaches to inclusion policy and practice (using the example of the Karaganda region).

It is known: “conditions are most often not included in the activity itself, but in the absence of proper conditions our activity will either be paralyzed or will proceed in an imperfect form” (Potashnik and Solozhnin, 2013). The nature of the conditions is, in turn, determined by the parameters of the educational process managed in accordance with the principles of the quality management system—customer orientation, process approach and evidence-based decision making. It is expected that the use of these methodological tools will make it possible to identify constraints, as well as identify ways to overcome them for the development of inclusive education in general education schools in Kazakhstan. We believe that since the problems of inclusive education in Kazakhstan, as well as the reasons that gave rise to them, are similar for other countries, what we have discovered will be useful to colleagues from other countries involved in the development of inclusive education.

2 Methodology

The implementation of quality management systems in the governance of educational systems is becoming increasingly widespread (Douglas, 2018). They have a significant impact on the effectiveness of administrative processes, on the activities of teachers and, as a result, on the quality of education in general (Abusnena, 2023). In turn, conditions (a system of conditions) are created to achieve the goal of the educational process as a set of objective possibilities, circumstances in which it is realized. The process approach makes it possible to obtain an “integrated technology for the implementation and monitoring of all activities of the educational process” (Levina et al., 2015).

2.1 The conceptual framework

Inclusive education was considered by us as a process purposefully organized in a comprehensive school to meet the particular educational needs of schoolchildren.

From the point of view of the process approach, in the process of inclusive education, the particular educational needs of a student (input) are transformed into their meeting (satisfaction) with the desired result (output). A mandatory requirement for any management system is the presence of feedback. Feedback involves collecting information about the performance results of the participants in the process, which is used by the process manager to make adjustments or decisions aimed at improving future outcomes (Russell, 2005).

The course, effectiveness and quality of the inclusive education process under consideration depend on a system of conditions established on the basis of decisions made by educational administrators at the institutional level. The system of conditions, which we consider essential for the full functioning of the process, includes the following approaches Potashnik and Solozhnin, 2013 (pp. 76–83):

- organizational and pedagogical conditions through the adjustment of current activities and the creation of necessary new institutional structures;
- scientific and methodological conditions through the development of a continuously updated digital bank of innovative ideas and methodological resources in the context of ongoing innovations;
- personnel conditions through the analysis of current staffing and forecasting future staffing needs, the formation of a request for specialized training and the coordination of professional development of educators;
- regulatory and legal conditions through the incorporation of amendments and additions to current and newly developed regulatory documents governing the education system;
- financial conditions, through the calculation and allocation of budgetary resources necessary and sufficient for the functioning and development of the education system;
- material and technical conditions, through the assessment of the physical condition of educational buildings and the availability of the necessary educational equipment, followed by the planning of their renewal;
- time-related conditions, through the planning of the management of the functioning and development of the education system, based on an assessment of the time required for the implementation of each initiative.

Thus, the model of a system of conditions with a feedback mechanism for the process of inclusive education, which satisfies the particular educational needs of schoolchildren, looks in our view as shown in Figure 1.

Each condition created was evaluated against the criteria of “quality,” “management,” “system” (Douglas, 2018, p. 22):

- “quality” as defined by the degree of satisfaction of a student with special needs with the desired learning outcome achieved;

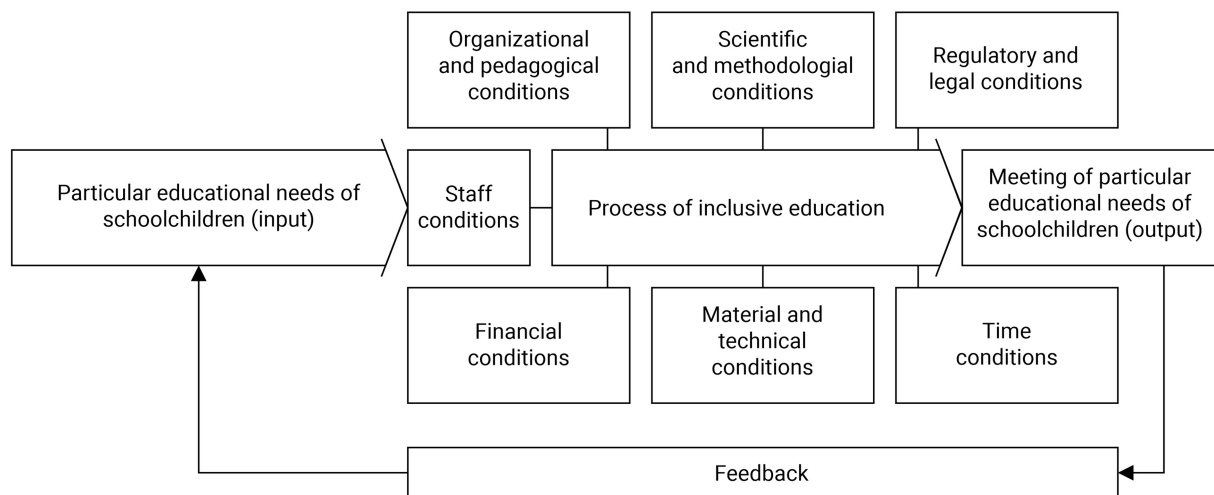


FIGURE 1
Model of the system of conditions for the functioning of the inclusive education process.

- “management” as characterized by timely decision-making on the adjustment or improvement of the current inclusive education process based on feedback information;
- “system” of conditions as a set of requirements put forward by society to governing bodies in terms of ensuring access of students with particular needs to education in a general education classroom.

2.2 Materials and methods

The following qualitative and quantitative methods were used to achieve the purpose of the study.

2.2.1 Qualitative methods

A review and content analysis of open sources of government agencies and organizations that determine the nature and regulate the content of the activities of teaching staff of general education schools in terms of the implementation of inclusive education and published in the period from 2007 to 2023.

Legal information system of Regulatory Legal Acts of the Republic of Kazakhstan “Adilet”:

- The Law of the Republic of Kazakhstan dated July 27, 2007 No. 319-III “On Education” (Adilet, 2007a);
- Resolution of the Government of the Republic of Kazakhstan dated December 31, 2015 No. 1193 “On the remuneration system for civil servants, employees of organizations maintained at the expense of the State Budget, employees of State-owned enterprises” (Adilet, 2015);
- Resolution of the Government of the Republic of Kazakhstan dated November 30, 2022 No. 963 On approval of a pilot national project in the field of education “Comfort school” (Adilet, 2022d);
- Resolution of the Government of the Republic of Kazakhstan dated March 28, 2023 No. 249 “On approval of the Concept of Development of preschool, Secondary, technical and vocational Education of the Republic of Kazakhstan for 2023–2029” (Adilet, 2023);
- Order of the Minister of Education and Science of the Republic of Kazakhstan dated March 18, 2008 No. 125 “On approval of Model Rules conducting ongoing monitoring of academic performance, intermediate and final certification of students for organizations of secondary, technical and vocational, post-secondary education” (Adilet, 2008);
- Order of the Minister of Education and Science of the Republic of Kazakhstan dated July 13, 2009 No. 338 “On approval of Standard qualification characteristics of teacher positions” (Adilet, 2009b);
- Order of the Minister of Education and Science of the Republic of Kazakhstan dated July 27, 2017 No. 352 “On Amendments and Additions to the Order of the Minister of Education and Science” of the Republic of Kazakhstan dated April 3, 2013 No. 115 “On Approval of standard curricula in general education subjects, elective courses and electives for general education organizations” (Adilet, 2017a);
- Order of the Minister of Education and Science of the Republic of Kazakhstan dated November 27, 2017 No. 597 “On approval of the Methodology for per capita regulatory financing of preschool education and training, secondary education, as well as technical and vocational, post-secondary education, taking into account credit technology of education” (Adilet, 2017b);
- Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 12, 2018 No. 564 “On approval of the Model Rules for Admission to study in educational organizations implementing general education curricula for primary, basic secondary and general secondary education” (Adilet, 2018);
- Order of the Minister of Education and Science of the Republic of Kazakhstan dated May 5, 2021 No. 204 “On approval of the Rules for monitoring educational achievements of students” (Adilet, 2021);
- Order of the Minister of Health of the Republic of Kazakhstan dated April 7, 2022 No. KR DSM-34 “On approval of the

Regulations on the activities of the Medical Advisory Commission” (Adilet, 2022a);

- (l) Order of the Minister of Education of the Republic of Kazakhstan dated August 3, 2022 No. 348 “On approval of the State mandatory standards of preschool education and training, primary, basic secondary and general secondary, technical and vocational, post-secondary education” (Adilet, 2022b);
- (m) Order of the Minister of Education of the Republic of Kazakhstan dated August 31, 2022 No. 385 “On approval of Standard Rules for the activities of educational organizations of relevant types and types, with the exception of organizations of higher and postgraduate education” (Adilet, 2022c).

The website of the National Academy of Education named after Ibrai Altynsarin of the Ministry of Education of the Republic of Kazakhstan:

- (a) educational and methodological recommendations for teachers and parents on psychological and pedagogical support for children with special educational needs in general education schools;
- (b) instructional and methodological letters on the specifics of the organization of the educational process in general education schools, section “Inclusive education.”

Website of the National Scientific and Practical Center for the Development of Special and Inclusive Education:

- (a) educational and methodological recommendations for teachers and parents on psychological and pedagogical support for children who need special conditions in inclusive education;
- (b) the list of special educational organizations in the regions of the Republic of Kazakhstan.

2.2.2 Quantitative methods

Collection and analysis of data from statistical reports of the Department of Education of the Karaganda region, the Karaganda regional psychological, medical and pedagogical consultation:

- (a) the number of children who need special conditions enrolled in general education, special schools and at home;
- (b) the number of special education organizations in the Karaganda region;

- (c) the number of special teachers and teaching assistants in general education schools of the Karaganda region.

3 Results

3.1 Organizational and pedagogical conditions

In Kazakhstan, various types and forms of education and special psychological-pedagogical support are provided for children with special needs, including:

- 1) special educational institutions: psychological-medical-pedagogical commissions (PMPC), special schools. Offices of psychological pedagogical correction (OPPC), inclusion support cabinet (ISC), rehabilitation centers, and support centers for children with autism;
- 2) general education schools: special classes, general classes;
- 3) home-based education.

From 2017 to 2023, there was a decrease in the proportion of children aged 7–15 with special needs in special schools and special classes and an increase in their proportion in general classes of general education schools as shown in Table 1 (using the example of the Karaganda region).

How this result was achieved is discussed below.

3.1.1 Special educational organizations

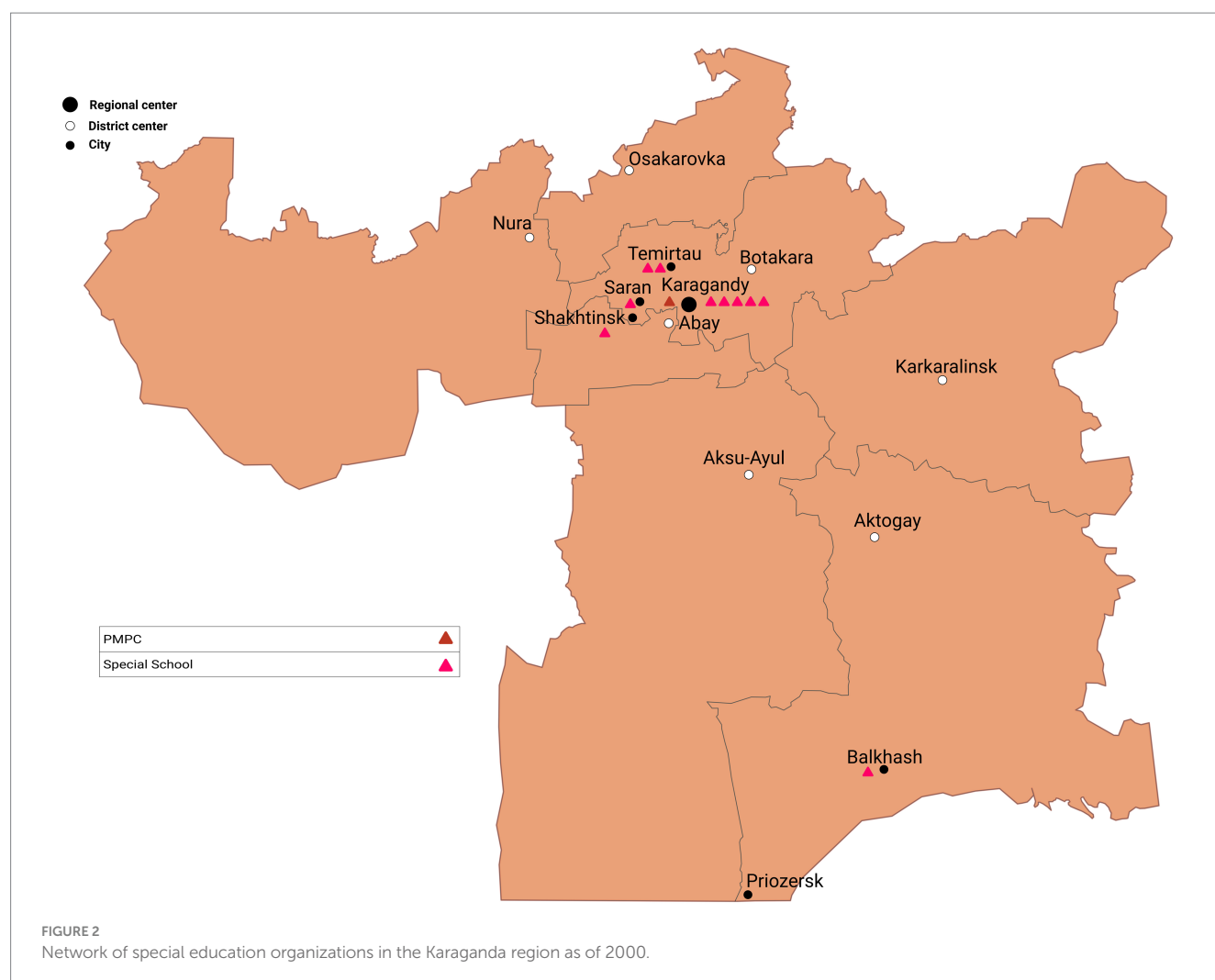
In 2000, 11 special educational organizations functioned in the Karaganda region (Figure 2).

As of January 2024, there are 34 special education organizations in the region (Figure 3).

Over the past 24 years, the network of special education institutions has tripled, indicating an expansion in the range of special services. The opening of some special organizations is an initiative of charitable and private foundations (Akimat of Karaganda Region, 2022; Bolashak Corporate Fund, 2025; Dara Charity Foundation, 2025). Today, this makes it possible to identify and provide support to a significant proportion of children in need of special conditions in a timely manner. However, this number of special education organizations remains insufficient: they are

TABLE 1 Proportion of children aged 7–15 who need special conditions enrolled in educational institutions in the Karaganda region (out of the total number of children aged 7–15 with who need special conditions).

Year	Special school	Comprehensive school		Home study
		Special class	General class	
2017	39.6%	17.9%	34.1%	8.4%
2018	32.9%	20.7%	36.6%	9.8%
2019	26.3%	14.0%	50.3%	9.2%
2020	32.2%	18.4%	41.2%	8.2%
2021	29.0%	20.8%	42.6%	7.6%
2022	29.9%	21.6%	44.7%	3.9%
2023	18.9%	2.4%	74.6%	4.1%



concentrated in 5 out of 6 cities of regional subordination, and in rural areas only in 3 out of 7 district administrative centers of the Karaganda region.

It should be noted that the network of special education schools in the Karaganda region is more successful than in other regions of Kazakhstan. In the Karaganda region, 10 special schools cover 6 categories of children in need of special conditions (delayed development of psychological and cognitive functions—1, mild and moderate intellectual disability—5, hearing impairment—1, vision impairment—1, speech disorder—1, mobility impairment—1). The situation is less favorable in other regions of Kazakhstan ([National Scientific and Practical Center for the Development of Special and Inclusive Education, 2025](#)):

- in Aktope region, 4 special schools cover 4 categories of children in need of special conditions (development of psychological and cognitive functions—1, mild and moderate intellectual disability—2, hearing, vision impairment—1);
- in Atyrau region, 3 special schools cover 3 categories of children in need of special conditions (speech disorder—1, mild and moderate intellectual disability—1, hearing impairment—1);

- in West Kazakhstan region, 3 special schools cover 3 categories of children in need of special conditions (mild and moderate intellectual disability—1, hearing impairment—1, vision impairment—1).

So, the network of special education organizations in the Karaganda Region has significantly expanded. Most likely, this process will continue further, as a developed network of special organizations is a prerequisite for the early identification of children with special educational needs. The United Nations Children's Fund (UNICEF) in Kazakhstan has recommended “introducing supervision and transferring functions to other services to provide comprehensive support” for children with special educational needs, aiming to reduce the burden on PMPC and strengthen gatekeeping ([UNICEF, 2023](#)).

3.1.2 General education schools

The intensity of the dynamics of the proportion of children aged 7–15 with who need special conditions enrolled in general education classes in the Karaganda region depends on the type of collapse, as shown in [Table 2](#).

Thus, compared to 2017, the proportion of children in need of special conditions included in general classes doubled by 2023. The greatest sustainable positive dynamics were found among children

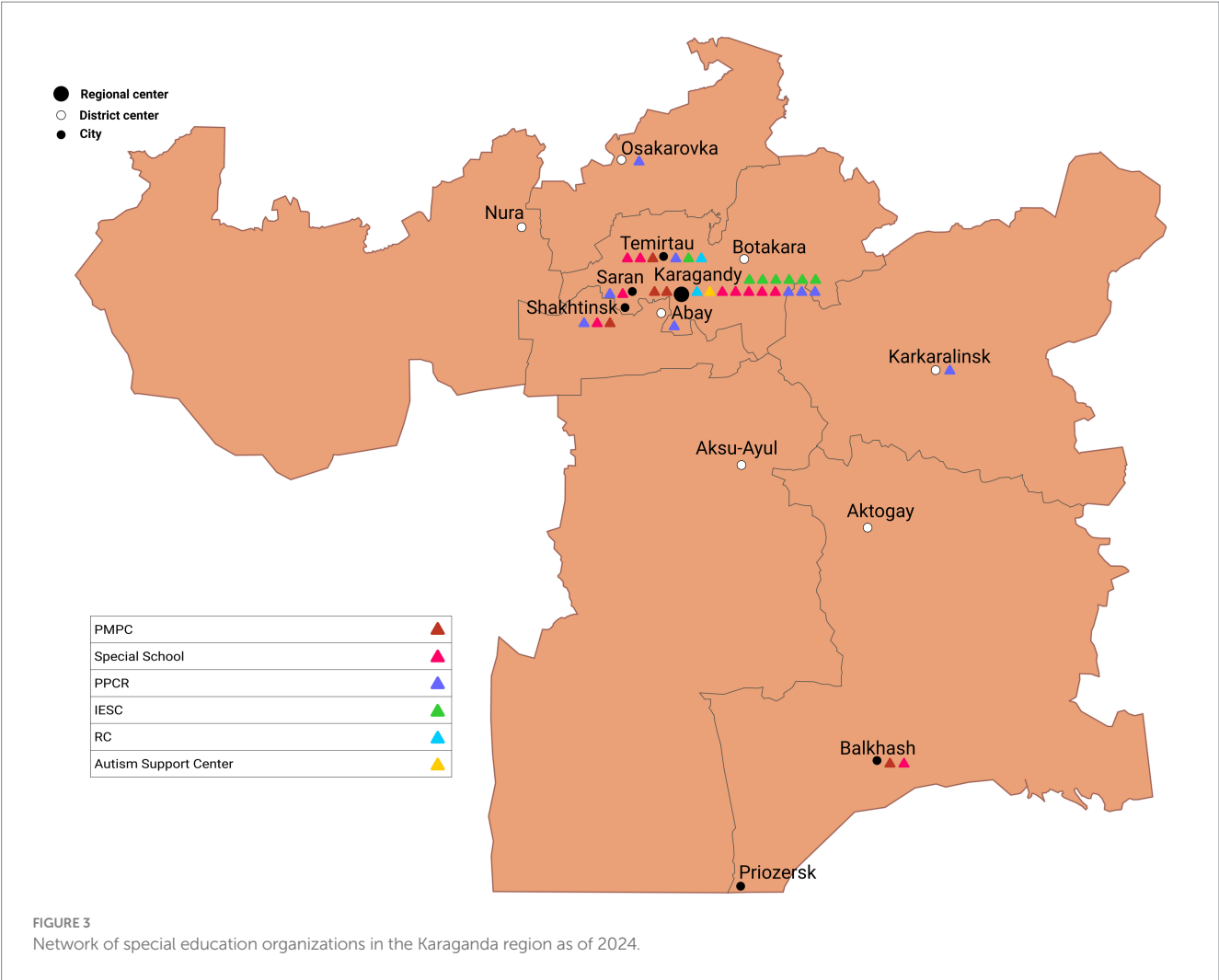


TABLE 2 Dynamics of the proportion of children aged 7–15 years who need special conditions enrolled in general classes of secondary schools in the Karaganda region by type of violations.

Type of offense	2017	2018	2019	2020	2021	2022	2023
Developmental delay in psychological and cognitive functioning	47.9%	50.7%	57.7%	61.3%	63.8%	72.9%	81.2%
Mild and moderate intellectual disability	19.8%	17.4%	23.4%	27.7%	33.4%	41.7%	46.0%
Hearing impairment							
Deafness	16.2%	25.5%	14.8%	17.0%	25.0%	28.1%	26.0%
Hard of hearing	19.4%	22.8%	38.9%	33.9%	37.1%	30.1%	32.8%
Cochlear implant	21.4%	27.1%	29.1%	27.1%	30.7%	30.0%	30.0%
Visual impairment							
Blindness	0%	0%	5.0%	4.8%	2.5%	3.3%	0%
Low vision	23.9%	24.6%	54.8%	44.5%	41.3%	27.0%	81.6%
Mobility impairment	16.9%	14.7%	18.9%	16.7%	20.2%	20.4%	24.9%
Speech disorder	45.1%	16.9%	68.4%	11.5%	11.0%	12.3%	78.2%
Autism	15.5%	11.1%	30.0%	25.0%	27.4%	28.0%	39.0%
TOTAL	32.5%	30.6%	44.3%	36.3%	37.1%	39.4%	64.5%

with developmental delay in psychological and cognitive functioning (+ 33.3%), mild and moderate intellectual disability (+ 26.2%), low vision (+ 57.7%), speech disorder (+ 33.1%). The reason for the observed growth is the absence of the need to create special conditions for education.

Further, there was a sharp jump in the indicator low vision, as this category includes children with myopia and hyperopia. They have always been enrolled in general educational schools, and with the appearance of the category children with special educational needs they were included in the category of those needing special conditions for education. Nevertheless, 18.4% of low vision with significant visual perception limitations remain outside the walls of general educational schools. A similar picture is observed in the dynamics of the share of children with speech disorder.

The least positive dynamics are also noted in the category of children deafness (+ 9.8%), children with mobility impairment (+ 8.0%); the proportion of blindness children in the specified period ranged from 0 to 5.0%. Special conditions have not yet been created in general educational schools for children in these categories.

3.1.3 Home study

From 2017 to 2023, there is a steady downward trend in the share of children in need of special conditions being educated at home (Table 1). Some children continue to be educated separately due to their health conditions, and this situation is likely to persist even within the framework of inclusive education (Adilet, 2022a).

3.2 Scientific and methodological conditions

The National Academy of Education named after Y. Altynsarin publishes methodological recommendations for the psychological and pedagogical support of children in need of special conditions on its website. Since 2015, 45 materials have been published (Table 3; National Academy of Education named after I. Altynsarin,

2024). Additionally, the “Instructional and methodological letter on the peculiarities of the educational process in educational organizations of the Republic of Kazakhstan in the academic year” is published annually, providing up-to-date information on the organization of the educational process under inclusive education (National Academy of Education named after I. Altynsarin, 2023). The National Scientific and Practical Center for the Development of Special and Inclusive Education offers methodological recommendations in open access, 22 materials have been published since 2015 (Table 3; National Scientific and Practical Center for the Development of Special and Inclusive Education, 2023).

In addition, the consortium “Savvy Business sLTD—Kapodistrias National University of Athens” developed and implemented the project “Inclusive Education Model Development and Training” in the period 2020–2024 within the framework of the World Bank project “Modernisation of Education” (Projects funded research programmers, 2024). In 2024, 500 university teachers, specialists and teachers of secondary education organizations were trained. For the first time, an attempt was made to overcome the existing departmental barriers, and the training of teachers from different spheres and levels of education was conducted jointly.

Thus, teachers of general educational schools are regularly provided with methodological recommendations and materials on the organization and implementation of inclusion principles in the educational process. Let us consider further what conditions are created for their implementation.

3.3 Staffing conditions

3.3.1 Special education teachers

Psychological and pedagogical support for children in need of special conditions studying in secondary schools is provided by special teachers of four categories: defectologists, speech therapists, typhlopedagogues and deaf educators. The dynamics of the number of special educators in the Karaganda region in general education schools in the period from 2021 to 2024 is shown in Table 4.

TABLE 3 Number of published methodological materials on inclusive education for the period from 2014 to 2024.

Name of the center	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
National academy of education named after Y. Altynsarin	–	7	5	3	3	9	5	1	3	4	5
National scientific and practical centre for special and inclusive education	1	4	1	1	2	2	2	3	2	2	2

TABLE 4 Number of special education teachers in general education schools of the Karaganda region from 2021 to 2024.

Special education teacher	2021	2022	2023	2024
Defectologist	190	182	187	188
Speech therapist	172	177	174	179
Typhlopedagogue	–	–	–	1
Deaf educator	–	–	–	–

Analysis of the data shows that the number of defectologists and speech therapists in the specified period remains relatively stable. Typhlopedagogues and deaf educators are practically absent in general education schools, with the exception of the appearance of one typhlopedagogue in 2024. As a rule, deaf educators and typhlopedagogues work mainly in special schools.

3.3.2 Teachers of general educational schools

From 2012 to 2016, Kazakhstan implemented a large-scale joint project of the Center for Pedagogical Excellence of Nazarbayev Intellectual Schools and the Faculty of Education of the University of Cambridge. The project program envisioned that teachers would acquire “promising ways of classroom working which would ultimately serve to improve teaching and children’s learning in schools throughout Kazakhstan” (Wilson, 2017). The training took place in three stages:

Stage 1—“face-of-face” training (4 weeks);

Stage 2—practice in secondary school (4 weeks);

Stage 3—“face-of-face” training (4 weeks).

According to the results of a study conducted in 2017 following the results of the project, it was established: “The most significant change had been the shift away from didactic style teaching, focusing just on high attaining pupils, to more inclusive practices where all learners are included in classroom activity” (Wilson, 2017, p. 14). In total, “over 70 thousand teachers have been trained, or every fifth teacher in Kazakhstan” (Tynybaeva, 2018).

3.3.3 Teaching assistants

The experience of colleagues from other countries demonstrates that in nations with successful inclusive education practices, the institute of tutoring has been established and operates effectively (Eliseeva and Ersarina, 2019; Somma, 2020). Until 2020, it also functioned successfully in Kazakhstan, but only in select schools serving as experimental sites for inclusive education (National Academy of Education named after I. Altynsarin, 2020, pp. 45, 92). Since 2020, the activity of teaching assistants is included in general educational schools of Kazakhstan, which means the transition of the institute of tutoring to the institutional level (Adilet, 2009a). Since then, there has been a steady increase in their number in general educational schools (Table 5).

In order to work as a teacher’s assistant in a general educational school, it is sufficient to have a pedagogical education; there is no need for special training. Only teachers in special education are adequately prepared for such activities, training and certification of teaching assistants is planned (Adilet, 2023).

Thus, the problem of a deficit of special educators, and the availability of special knowledge of teaching assistants to implement the principles of inclusive education in general educational schools remains acute. Without the support of a special educator, a teacher should not teach a child in need of special conditions. This aggravates the situation, because, in the model of inclusive education, the most promising is the activity of teachers as part of a “transdisciplinary team,” whose members plan, teach and educate together (Savvy Business Sltd, 2024).

3.4 Regulatory and legal conditions

The Law “On Education” of the Republic of Kazakhstan presents two concepts that reflect the state policy in terms of inclusive education:

- “inclusive education—a process ensuring equal access to education for all students taking into account particular educational needs and individual opportunities”;
- “persons (children) with special educational needs—persons (children) who experience permanent or temporary needs in special conditions for obtaining education of the appropriate level and additional education” (Adilet, 2007a).

Thus, in Kazakhstan’s inclusive policy aimed at meeting the educational needs of all children, priority is given to children who need special conditions. At the same time, K. Messiou argues that “focusing only on some students, rather than on all, is contrary to the principles of inclusive education” (Messiou, 2016). It is hard to disagree with this, and therefore it is necessary “to change thinking and practice in the field” (Messiou, 2016, p. 146), and to modernize the general education process as a whole. In this case, the modernization of the general education system will serve as a catalyst for inclusive transformations, as a result of which the educational needs of all students, without exception, will be met.

Further, admission of children in need of special conditions to general educational schools is carried out taking into account the conclusion of the PMPC with the consent of parents (Adilet, 2018). General educational schools provide equal access to education for all children in need of special conditions (Adilet, 2007a, 2022c). Teachers, based on the model curricula of 2022, together with a special educator, and educational psychologist develop special educational programs for children in need of special conditions (Adilet, 2009a, 2022b).

However, since 2017, standard curricula for general education subjects have also been in effect in special education institutions for children in need of special conditions (Adilet, 2017a). The existence of standard curricula operating in parallel in the fields of general and special education casts doubt on the existence of inclusion already at the level of individual regulatory legal acts.

Further, when evaluating the academic achievements of students in need of special conditions, the teacher should use individual tasks and make changes in the evaluation criteria (Adilet, 2017a). No indication was found in the regulatory documents as to how a child in need of special conditions is determined to be satisfied with his or her educational achievements (Adilet, 2021).

In 2017, at the request of the Ministry of Education and Science of the Republic of Kazakhstan, the project group of joint stock companies “Information and Analytical Center” developed a compilation “Monitoring framework for inclusive education in the Republic of Kazakhstan” (Nogaybaeva et al., 2017). It summarizes the international experience of assessing inclusion, according to which the purpose of inclusive education is to meet the particular educational needs of all students. A focus on only certain groups of students, rather than on the

TABLE 5 Number of teacher assistants in general educational schools of Karaganda region in the period from 2020 to 2024.

Educational worker	2020	2021	2022	2023	2024
Teaching assistant	59	94	198	276	280

entire student population, runs counter to the fundamental principles of inclusive education (Florian, 2019; Mezzanotte, 2022). However, this publication is of a recommendatory rather than institutional nature.

Educational achievements of students are monitored annually in general educational schools of the Republic of Kazakhstan. In order to bring the content and procedures for monitoring students' educational achievements to the requirements of international standards (GOV.Kazakhstan, 2024), in 2024 he successfully passed international accreditation at the International Research Center for Expertise and Certification (Research Center for Examination and Certification RCEC, Netherlands; RCEC, 2025). This inspires optimism regarding the prospect of studying the degree of satisfaction of all children, including children in need of special conditions, with the achieved learning outcomes in general educational schools.

3.5 Financial conditions

From 2020, teachers will be paid 40% of their basic salary for working with children in need of special conditions (Adilet, 2015). This step is not in line with the philosophy of inclusive education, as such practice is regarded as a stigma in the world.

Since 2017, Kazakhstan has implemented per capita normative funding for general education, with the per capita norm for students in need of special conditions being doubled (Adilet, 2017b). By 2029, it is planned to increase the share of state general educational schools that have switched to per capita financing up to 96.2% (Adilet, 2023).

In order to eliminate emergency schools, three-shift education and shortage of pupil places in secondary education organizations, a pilot national project “Comfortable School” is being implemented (Adilet, 2022d). 2.3 trillion tenge (KZT) has been allocated from the state budget for the implementation of the project (Sputnik Kazakhstan, 2024). The construction of “Comfortable schools” is planned according to unified standards, and each school for children in need of special conditions provides for the creation of a barrier-free environment. We have not found information on whether it is planned to allocate funds for modernization of existing schools.

3.6 Material and technical conditions

The national pilot project “Comfortable School” provides for the commissioning of at least 740 thousand new pupil places until 2026 (Sputnik Kazakhstan, 2024). The construction of schools for children in need of special conditions provides for:

- ensuring accessibility of the school building for low mobility groups (lifts, lifting devices, ramps, handrails);
- adaptation of school space (no thresholds inside the building, sound notification, relief tactile markings of paths of movement; sanitary unit, etc.);
- providing classrooms with a full set of educational equipment and furniture, taking into account the needs of students (Adilet, 2022d).

But children in need of special conditions also need comfortable and safe conditions in existing schools. Their absence is pointed out

by practically all authors researching the problems of inclusive education in Kazakhstan.

We consider it necessary to draw attention to another problem that poses a real threat to the development of inclusive education in Kazakhstan. Since the material and technical base of schools was formed in the conditions of traditional education, it is “morally” outdated and requires significant modernization. For example, in order for a teacher to organize effective interaction between students during a lesson, mobile furniture should be installed in the classroom. Schools are equipped with modern school furniture mainly at the expense of charitable foundations, and it is not widespread. The issues of creating material and technical conditions for children in need of special conditions in existing schools and modernization of the existing material and technical base remain open.

3.7 Time-related conditions

In 2023, the Action Plan for the Implementation of the Concept for the Development of Preschool, Secondary, Technical, and Vocational Education in the Republic of Kazakhstan for 2023–2029 was published. This document remains the sole publicly available source that defines the principal measures for managing the operation and advancement of inclusive education, along with the corresponding implementation timeline (Adilet, 2023).

Nevertheless, since 2011, planning and implementation of activities aimed at achieving the current objectives of inclusive education have been carried out. However, planning was characterized more by a tactical approach than a strategic one. Figure 4 shows a diagram that illustrates the chronology of activities for the establishment and development of inclusive education in Kazakhstan. The counting started in 2011, the moment when inclusive education in Kazakhstan acquired an institutional status (Adilet, 2007b).

An analysis of the data presented in Figure 4 shows that Kazakhstan has taken measures since 2011 to create conditions for the implementation of inclusive education. However, the system of created conditions does not have sufficient completeness: special teachers are not trained to work in inclusive education, and there is no certification of teaching assistants. The creation of material and technical conditions is local in nature: the base of existing schools, taking into account the needs of children in need of special conditions, is not being modernized, and the number of “comfortable schools” is limited.

Further, the asynchrony and illogicality of actions to create the desired system of conditions is of concern. Thus, the concept of “inclusive education” was introduced into the Law of the Republic of Kazakhstan “On Education” in 2011, and into the state standard of general secondary education in 2016. Or how timely is the introduction of the position of teaching assistant in 2020, if children in need of special conditions began to study in general educational schools much earlier?

Thus, insufficiency, asynchrony, and untimely adoption of certain measures reduce the effectiveness of the system of conditions for the functioning and development of inclusive education in general education schools in Kazakhstan.

Event	Year													
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2021	2023	2024
Organizational and pedagogical conditions														
Identification of children in need of special conditions support by specialists from PMPC, OPPC and ISC	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Teaching children in need of special conditions in general classes of general educational schools	-	-	•	•	•	•	•	•	•	•	•	•	•	•
Opening of inclusive education support rooms	-	-	-	-	-	-	-	-	-	•	•	•	•	•
Scientific and methodological conditions														
Publication of methodological materials on inclusive education NAE named after Y. Altynsarin	-	-	-	-	•	•	•	•	•	•	•	•	•	•
Publication of methodological materials on inclusive education by Research Activities of the National Scientific Medical Centre	-	-	-	•	•	•	•	•	•	•	•	•	•	•
Development and training of the IE model by the «Savvy Business sLTD - Kapodistrias NU Athens» consortium	-	-	-	-	-	-	-	-	-	-	-	-	-	•
Staffing conditions														
Training teachers to work in inclusive educational environments	-	•	•	•	•	•	•	•	•	•	•	•	•	•
The introduction of positions and the appearance of teaching assistants in general educational schools	-	-	-	-	-	-	-	-	-	•	•	•	•	•
Certification of teaching assistants to work in inclusive education settings	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preparing special educators to work in a transdisciplinary team setting	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Regulatory and legal environment														
The Law of Republic of Kazakhstan "On Education" introduced the concept of «inclusive education»	•	•	•	•	•	•	•	•	•	•	•	•	•	•
The concept of "inclusive education" has been introduced into the state standard of general education	-	-	-	-	-	•	•	•	•	•	•	•	•	•
Financial conditions														
Funding for the activities of newly established PMPCs, OPPCs and ISCs	-	-	-	•	•	•	•	•	•	•	•	•	•	•
Additional payment to teachers for working with children in need of special conditions	-	-	-	-	-	-	-	-	-	•	•	•	•	•
Transition to per capita normative financing of general educational schools	-	-	-	-	-	-	-	-	-	-	-	-	•	•
Material and technical conditions														
Construction of new schools within the framework of the National Pilot Project «Comfortable School»	-	-	-	-	-	-	-	-	-	-	-	•	•	•
Modernization of the material and technical base of existing general educational schools	-	-	-	-	-	-	-	-	-	-	-	-	-	-

FIGURE 4

Chronology of events on the establishment and development of inclusive education in Kazakhstan in the period from 2011 to 2024.

4 Discussion

Kazakhstan's general secondary education system is moving steadily and purposefully in the wake of inclusivity, proclaimed by UNESCO in 1994. Since 2011, measures have been taken to create a system of conditions for the functioning and development of inclusive education. Their success is manifested in a steady trend toward a decreasing proportion of children in need of special conditions in special schools and an increasing proportion in general educational schools. This is facilitated by creating a legal and regulatory framework and also regular scientific and methodological support for teachers of general educational schools in terms of organization and implementation of the principles of inclusion in the educational process. Doubling the normative per capita funding per student in need of special conditions, allocating resources for the construction of modern, and comfortable schools for the purpose of adapting school spaces for children in need of special conditions are a guarantee of maintaining the observed trend.

At the same time, the functioning and development of inclusive education are hindered by a number of significant problems. The narrowing of the concept of inclusive education in the Law of the Republic of Kazakhstan "On Education," which provides for meeting the educational needs of all children to the category of children in need of special conditions, leads to ignoring the particular educational needs of other groups of students. The situation is aggravated by the presence of departmental boundaries between communities of teachers of general and special education in the learning process and psychological and pedagogical support for children in need of special conditions. The violation of cause-and-effect relationships between the elements of the system of conditions for the functioning and development of inclusive education is one of the main reasons for the current situation.

Admittedly, by creating special conditions in general educational schools for the category of children in need of special conditions, Kazakhstan is, in fact, at the preparatory stage of the becoming of inclusive education. The process of inclusive education is a combination of parallel processes of general and special education, it does not have proper internal unity. We believe that even if conditions are created systematically and interlinked, without changing the general policy in the field of general secondary education, the situation in inclusive education is unlikely to change dramatically.

This study relies heavily on information obtained from open sources provided by government agencies and organizations. At the same time, the lack of empirical data reflecting the degree of satisfaction of participants in the inclusive education process (children with special needs, teaching assistants) with the conditions created in secondary schools may affect the objectivity and completeness of our conclusions.

Thus, the subsequent stages of the formation and development of inclusive education should be aimed at designing the educational process directly based on studying the degree of meeting of particular educational needs of children, all without exception. Achieving this goal is possible under the condition of modernization of general secondary education – the transition to a higher level, qualitatively different from the existing policy of making managerial decisions in the field of education. In this case, inclusive education acquires the status of the expected result of the modernization of general

secondary education, which is a major task that Kazakhstan has been solving for a long time.

We believe that the modernization of education is a task at the level of strategic management, which can be solved if there is an "invention of the future" as opposed to the "varnishing of the present." Otherwise, there is a great danger that the idea of creating inclusive education in Kazakhstan will gradually transform into a declaration, and its implementation will be postponed indefinitely. We are confident that this approach is relevant and promising for colleagues from other countries dealing with the development of inclusive education.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

ZM: Writing – original draft, Methodology, Validation, Investigation, Conceptualization, Writing – review & editing. AS: Validation, Writing – original draft, Conceptualization, Investigation, Writing – review & editing, Methodology. KA: Methodology, Writing – review & editing, Validation, Writing – original draft, Conceptualization. DA: Writing – review & editing, Investigation, Writing – original draft. VB: Writing – review & editing, Writing – original draft, Visualization.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Generative AI statement

The author(s) declare that no Gen AI was used in the creation of this manuscript.

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