Organization of inclusive education for schoolchildren with special needs in modern school practice

Organización de la educación inclusiva para escolares con necesidades especiales en la práctica escolar moderna

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Abstract

In the article, the features of the organization of the educational process for pupils with special needs, the involvement of a wide range of educational services to improve academic achievement, and the development of the child's personality are considered. The article aims to identify the content, main criteria, and algorithms for organizing inclusive education for pupils with special needs. The attitudes of parents, educators, and social workers to the proposed system of inclusive education are revealed.

The result of the work is an algorithm for introducing inclusive education, determining its effectiveness, and a positive assessment of the system's effectiveness by parents, social workers, and educators (11%, 13%, and 15%, respectively). In this context, it is promising to research and design specific examples of the organization of inclusive education management systems.

Keywords: Inclusion, inclusive education; children with special educational needs, socialization of children, educational needs, inclusive classroom.

Resumen

En el artículo, se consideran las características de la organización del proceso educativo para alumnos con necesidades especiales, la participación de una amplia gama de servicios educativos para mejorar el rendimiento académico y el desarrollo de la personalidad del niño. El artículo tiene como objetivo identificar el contenido, los criterios principales y los algoritmos para organizar la educación inclusiva para alumnos con necesidades especiales. Se revelan las actitudes de padres, educadores y trabajadores sociales ante el sistema de educación inclusiva propuesto. El resultado del trabajo es un algoritmo para implantar la educación inclusiva, determinar su eficacia y una valoración positiva de la eficacia del sistema por parte de padres, trabajadores sociales y educadores (11%, 13% y 15%, respectivamente). En este contexto, es prometedor investigar y diseñar ejemplos concretos de organización de sistemas de gestión de la educación inclusiva.

Palabras clave: Inclusión, educación inclusiva; niños con necesidades educativas especiales, socialización de los niños, necesidades educativas, aula inclusiva.

1. Introduction

The educational technologies of the twenty-first century require educators to constantly work on improving, systematizing, and reforming all areas of education. However, one of the most rapidly changing is inclusive education, the principle of working with children with special needs and their families (UNICEF, 2020). On the one hand, modern society provides new opportunities for implementing inclusive education, improving the conditions for learning and communication. On the other hand, it makes it necessary to actively use existing and develop new approaches and methods of raising and teaching a child with special needs, to improve not only the knowledge system but also communication skills. A well-organized system of inclusive education management brings about positive changes in the personality, which is the greatest educational goal of adjusting a child with special needs to the realities of modern life (Selin et al., 2016).

In Ukraine, inclusive education received real government support in 2018 as a result of Law No. 2541-8 "On Access to Education for Children with Disabilities," which was published in the Holos Ukrainy parliamentary newspaper. This made it possible to launch a series of research and practice-oriented projects on the organization of inclusive education in Ukrainian schools. This work has contributed to the emergence of many interesting projects and raised some research questions that needed to be addressed. This determined the scientific issues of research in the fields of pedagogy, psychology, and sociology. Our study also examines algorithms and organizational guidelines for the implementation of inclusive education.

Zhanna Verovkina, Iryna Martsinovska, Halyna Vasylieva, Natalia Savinova, Lesia Chopyk

The definition of "inclusive education" is based on many modern theories and interpretations (Roldán et al., 2021; Bakhmat et al., 2022). This is primarily a process of including children with special needs in social and educational activities. Thus, such processes should take place in educational institutions with special conditions. Inclusive education provides an opportunity to develop social skills in the same way as peers do.

The need for inclusive education in the country's educational system is increasing its popularity, as it provides equal access to education. Therefore, it is important to create adapted programs and teaching methods that are designed to make children with special needs (physical, psycho-emotional, and mental) part of society.

It is worth working on an important educational and social task - to create conditions for a child with special needs to facilitate his or her development and learning. The organization of inclusive education also involves the use of various forms of involvement of the student and his or her environment in the educational process. This makes it possible to maximize the use of the positive qualities of the individual and mitigate the negative aspects and difficulties of teaching a child with special needs.

Successful learning and development of social skills are possible when favorable conditions are organized for a child with special needs not only in the educational process but also in extracurricular activities. The optimal combination of developmental external factors with the desire of teachers, social workers, and families to grow together with the child will be optimal (Puranik, 2020).

If social workers, teachers, and parents take an active role, a student with special needs will be able to improve his or her development. Creating only appropriate conditions without a responsible attitude of all participants will bring minimal results.

The development of adaptive programs and organizational guidelines for the development of inclusive education (extracurricular activities) remains relevant, and it is necessary to further improve existing effective programs that could be integrated into the educational process of modern schools in Ukraine.

The study aims to identify the content, main criteria, and algorithms for organizing inclusive education for schoolchildren with special needs.

Based on the goal, the following research tasks are planned to be performed:

– to identify the idea and basic guidelines for implementing inclusive education at school.
– to establish the demographic and qualification characteristics of teachers and parents who participated in the experiment;
– to assess the usefulness of inclusive education technologies and their organization by teachers, social workers, and parents;
– to determine the level of attendance of programs, consultations, and group activities organized by the school by parents of children with special needs.

2. Literature review

Innovative measures for inclusive education that can make the educational process as modern and as democratic as possible are proposed in many recent research projects (Szumski et al., 2017). Many experimental studies were conducted in secondary and primary schools (Bakhmat et al., 2022). University education is based on organizational and pedagogical technologies, means of teaching and socialization of a person with special needs, and is part of the latest pedagogical technologies (Muldrew & Miller, 2021), and educational projects (Dweck, 2017). The significant changes that have taken place in school education with the implementation of distance education in the context of the coronavirus pandemic (Morsink et al., 2021) are also considered. Moreover, the problems of adaptation of children with special needs and behavioral disorders in the context of modern educational practice are studied.

There are many important research challenges for managers, staff, and scholars in organizing inclusive education at school. Teachers need to acquire the skills and knowledge necessary to work in inclusive education that promote the personal growth of students, master them and apply them in their professional activities (Dzvinchuk et al., 2020).

The difficulties of the education sector related to innovations are also considered. Some researchers (Minibas-Poussard et al., 2018) believe that modern school educators are not active enough, and are not eager to participate in innovative educational and training projects or implement them at a low level. All this does not allow the practical and theoretical field of inclusive education to develop intensively. The degree of use of innovative technologies and developments in the educational process is also considered (Anis, 2017); curriculum development with consideration of programs to promote personal development, and teaching materials are studied (Čuhlová, 2019).

The topic of value orientations of modern society in the context of the information revolution of the XXI century is being developed separately (McIntosh et al., 2021). In this context, the very idea of introducing inclusive education sounds very modern, a manifestation of humanism and further democratization of society. Moreover, the way of forming diagnostic and correctional measures and approaches to identifying the needs of students with special needs, and searching for the realization of their communicative potential can be traced (Tyurina, 2019). An important condition for success in the development of personal growth and training programs is also the constant study of previous experience and its effectiveness, the conditions for successful implementation (Boghian, 2018).

The inclusive model is considered by many researchers to be an educational model that makes it possible for children with special needs to be educated together with other students at school (Szumski et al, 2017; Longstreth et al, 2016). The study focused on inclusive education to create conditions for the development of children with special needs. It also aimed to form a tolerant attitude of parents, teachers, and students towards them. (Drach, 2020). In recent decades, the problems of inclusive education have been considered from the perspective of opening up wide opportunities for children to learn, regardless of the presence or absence of special needs. From this perspective, new requirements for a modern teacher, continuous improvement of pedagogical skills, and specialized knowledge are being developed (Shulman, 2018). The practical programs

of teachers focused on the specifics of building educational processes for students with special needs and considering ways to rehabilitate and socially integrate an individual (Muñoz-Martínez et al., 2021). The process of involving a child with special needs in general education classes is studied. By doing so, children can gain experience in understanding, care, and attentiveness to their classmates.

The latest pedagogical and organizational technologies in the field of inclusive education, which are being introduced into the school education space and are aimed at improving the conditions of development and comfort of life, facilitating adaptive learning processes, require constant research attention.

3. Methodology

For the effective implementation of the pedagogical experiment conducted in the field of inclusive education, or rather the organizational measures for its introduction in secondary school, theoretical methods of analysis and synthesis, and the descriptive method were applied. Empirical (diagnostic) methods were also involved in the research experiment. This is, in fact, a pedagogical experiment, which also requires the use of survey methods, questionnaires (written form), and observation.

To implement the adaptive program for inclusive education, the capabilities of the team of teachers, teachers of the Ternopil Educational Complex School-Lyceum No. 6 named after N. Yaremchuk, Ternopil Secondary School No. 23, as well as parents of pupils and social workers of the state social services of Ternopil were employed.

The method of the pedagogical experiment was used for one academic year (2021-2022). This method was used to determine the peculiarities of organizing inclusive education for children with special needs at school in Ukraine. This involves an assessment by teachers, parents, and social workers of the level of organization and usefulness of the adaptive program and how effective it is to introduce inclusive education in a secondary school adapted to the realities of Ukrainian modernity. The pedagogical experiment is aided by the observation method. Statistical methods were used to evaluate the results of the experiment.

The experiment involved a total of 48 parents of students with special needs whose children studied in the school's classrooms with other children, as well as social workers (30) and educators (16). The variable in the classroom is the introduction of inclusive education, changes in the curriculum aimed at comprehensive socialization and education of a child with special needs, and tolerance of society.

Stage 1. A preliminary survey is conducted on the demographic characteristics of parental social workers and teachers, as well as the qualification characteristics of the latter. The research team, together with the teaching staff, develops programs, and schedules. Furthermore, it determines the equipment of school facilities for the implementation of inclusive education. The team is also developing the schedule and content of additional group classes and counseling sessions for parents and students. Materials and equipment for the courses are prepared, and preliminary consultations are held with specialists and teachers who will participate in the experiment.

Stage 2. At this stage, along with training, parental counseling, and the active work of teachers and social workers, the characteristics and classification of the main diagnostic tools and adaptation and correction work are identified. Technologies for the correction of learning and behavioral difficulties; technologies for developing children's social skills; technologies for evaluating inclusive approach methods, etc. were applied. The parameters of support in learning and correction of behavioral disorders of a child with special needs within the framework of the introduction of an adaptive program in the school education space are determined.

Stage 3. At the final stage, the level of interest is monitored and the usefulness of introducing inclusive education into school practice, which involves the use of inclusive education technologies, is assessed. The results of parents' attendance at counseling sessions are also recorded.

The difficulties encountered during the implementation of the experiment include the relatively short duration of the program (1 academic year). Also, the research team could not determine the reasons for the respondents' assessments, as it was not possible to conduct a qualitative in-depth study.

4. Results

Inclusive education and the principles of its organization at school are based on some basic principles, characteristics, and technologies.

The principles of implementing organizational inclusive education comprise the following: the thesis that the value of achievements does not depend on the level of a person's abilities/opportunities; everyone has the right to communication and understanding; people need to communicate with each other; live communication determines the real educational process; every child has the right to communication and friendship with peers; the value of a person does not depend on his or her achievements and skills; progress in education can be made following a person's capabilities, without demanding the impossible; and diverse development improves life.

Organizational technologies for inclusive education belong to the group that focuses on systemic planning, conditions for the implementation of learning, and programming of expected results. Inclusion technologies have an organizational role. The following technologies were used in the pedagogical experiment: technologies for the correction of learning and behavioral difficulties; technologies for the development of social skills in children; technologies for evaluating inclusive approach methods. These technologies improve the concentration and motivation of the child and his or her family. Psycho-physical exercises help to increase confidence in success and relieve stress from learning.

The first stage involves a survey of program participants (teachers, social workers, and parents) on their demographic (parents and educators) and qualification characteristics (teachers and social workers). A system of counseling and classes for parents is being developed, as well as educational materials, logistics, and training space for the successful implementation of the program.

Table 1.

Demographic and qualification characteristics of the respondents (author's development)

		Parents	Educators
Age	24-40	36	9
	40-60	12	7
Gender	Female	30	16
	Male	18	2
Received qualification (for teachers)	Social work specialist		8
	Speech and language therapist, physiotherapist		5
	Teacher, educator-organizer		3

As can be seen, all teachers are qualified specialists and can work as a systemic team in inclusive education. Most of the adult participants in the experiment are between the ages of 24 and 40. An important feature of the group of respondents is the significant predominance of women among the parent group (48%).

Stage 2 identified the parameters for supporting students in their studies and ways to correct behavioral disorders. These measures are aimed at improving the quality of education, technological diversity, and the level of organization of inclusive education. Stage 2 involves the implementation of an adaptive program with the use of organizational-type technologies. All of this is done against the background of the constant use of psychological support for children with special needs in the school environment.

Table 2.

Parameters of support in learning and correction of behavioral disorders (author's development).

№	Behavioral measures	Measures to support intellectual development
1	Determinants operational deferred/generalized	Determinants operational deferred
2	Types of intervention	Types of intervention
	Block of questions Mnemotechnics Additional training	Block of questions Mnemotechnics Additional training
3	Mutual learning	Mutual learning
	Developed explanations Formulated explanations Clear instructions	Answer cards Formulated explanations
4	Characteristics of the academic subject	The place of intervention
	Year of Study IQ reporting	Classroom Special education office
5	Research features	Duration of intervention
	Protocol assignments An in-depth study of learning difficulties	Short-term Prolonged Specifics of the subject matter in primary school in secondary school

For the second stage, it was important to develop an algorithm for using technology in the sequence of learning and development stages. Teachers, parents, and social workers could create collective work with students, work in groups, and learn new techniques and ways to adapt to society. A learning and relaxation space was organized for children with special needs, and specially equipped classrooms were created.

The research team regularly reviewed the materials of the surveys of the participants of the experiment regarding their assessment of the results of the work of students and teachers in correcting learning and behavioral difficulties; the process of socialization of children in the space of art, creativity, and education. Sports achievements, organization of opportunities to work in a team, coordinate their actions, and cooperate were also important.

In the final, third stage, a final survey was conducted to gauge the participant's assessment of the feasibility and usefulness of implementing the program of the educational and methodological complex of psychological means of development of primary school students.

As shown in the figure, social workers liked the involvement of various psychological means of personality formation the most (53% rated inclusive education as very useful, 41% as quite useful, and there were no respondents who considered the program not useful at all). There was no one among the children who were not interested in the program. Among the respondents who found the program, not at all interesting, there are 9% of parents and 6% of teachers. Among the teachers who worked in inclusive education, 25% found the program not very useful. At this stage, a study of parental involvement in the implementation of inclusive education was also conducted as part of the experiment.
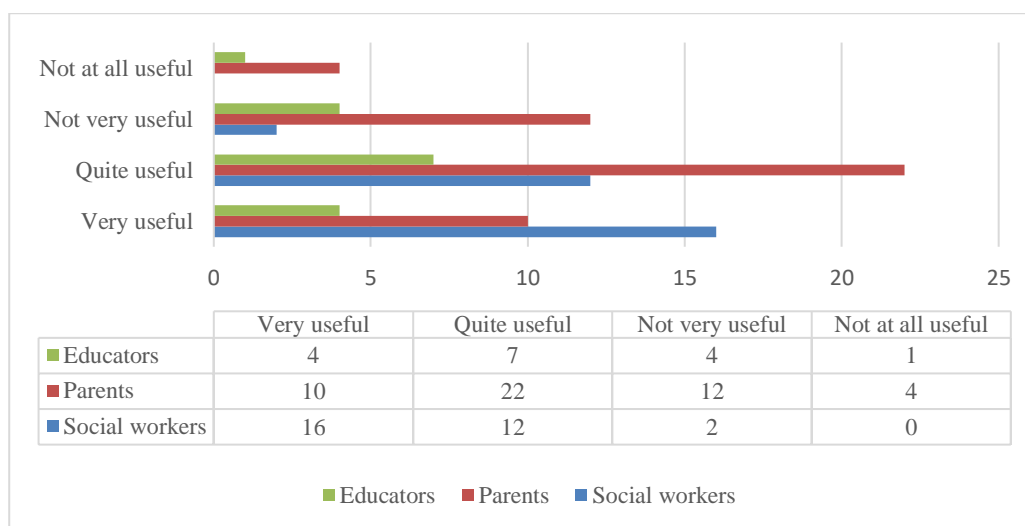

	Very useful	Quite useful	Not very useful	Not at all useful
Educators	4	7	4	1
Parents	10	22	12	4
Social workers	16	12	2	0

■ Educators ■ Parents ■ Social workers

Figure 1. Graphical representation of the level of interest of participants (students, educators, parents) in the activities of the educational program (author's development).
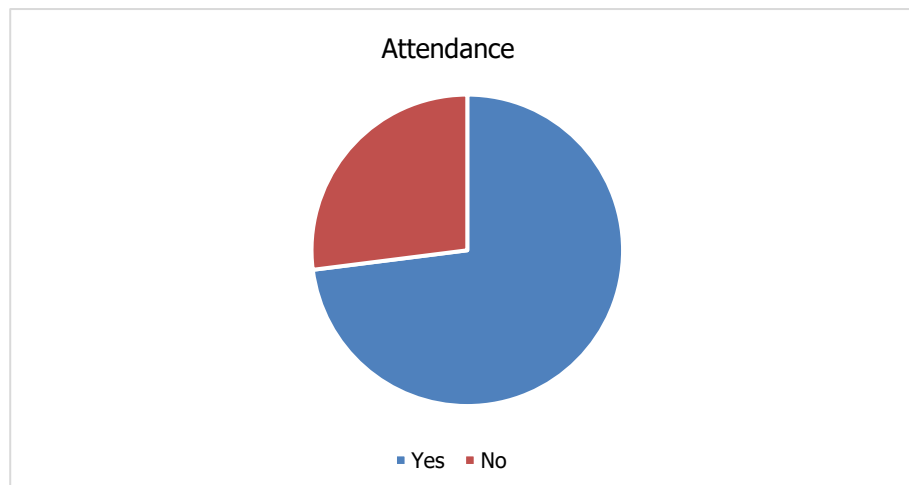
Figure 2. Graphical description of the degree of attendance of joint development groups and consultation events by parents

The high level of parental attendance (73%) at events and consultations demonstrated the family's interest in implementing inclusive education, socializing a child with special needs, and creating conditions for the education and upbringing of a student by all participants in the educational process. Furthermore, it is worth talking about raising the level of pedagogical skills and underestimating the potential of psychological means of influence and correction in inclusive education.

5. Discussion

The topic of inclusive education in modern pedagogy has broad prospects and is determined by its thematic diversity. Its distinctive feature is the existence of a fairly large number of different approaches to teaching individuals with special needs.

There is a group of researchers () who, in the course of implementing various studies in the field of organizing inclusive education at universities, considered the effectiveness of the Science Writing Heuristic (SWH) approach. Both research groups obtained positive results. Taylor J. (2012) studied the improvement of Cornell Critical Thinking in high- and low-achieving students in the situation at the beginning of the semester and after exams. Students with low (40%) and high performance (90%) who attended special rooms for correction based on the Science Writing Heuristic (SWH) method improved their results. The same positive result was obtained in the study of Villanuevaa, M., Taylorb, J., Therriena, W., Handa, B. (2012), where the use of consulting and study rooms with the Science Writing Heuristic (SWH) approach for students with disabilities had positive consequences. Over the 3 years of research, the intensity of learning opportunities was average, and negative influences and stress factors decreased by 50%.

Hainagiu S. (2020) considered the program of professional counseling, and the introduction of extracurricular activities as a mandatory part of the processes of professional and personal development of pupils, students, interns, etc. According to the results of the study, attendance at such consultations and events amounted to 99% of the 95 participants in the experiment. In the study described above, the attendance rate for parental consultations was 73%. A positive

assessment of the program, which actively used psychological means of personal development, was given by 76 people (students, teachers, and parents).

Other studies (Hill & Pargament, 2017) focus on the effectiveness of pedagogical and organizational types of inclusive technologies introduced in education. When studying the benefits of inclusive education for a child with special educational needs, many researchers (Bakhmat et al., 2022) found that, according to the results of surveys conducted, teachers and parents of children with special needs named the greatest advantage of inclusive education as the acquisition of new skills, knowledge, and functional skills by students. 61% (teachers) and 63% (parents) of survey participants positively assessed this characteristic of inclusion. Our study also found that social workers (53% rated inclusive education as very useful) and parents (63% considered inclusive education useful and very useful) assessed the usefulness of inclusive education the highest.

The focus on the practical application of inclusive technologies and the impact on the growth of social and cognitive capabilities of a child with special needs correlates with the development of personality and the realization of interpersonal contacts of all students and parents involved in inclusive education.

6. Conclusions

The organization of inclusive education involves the active use of inclusive technologies of various types and has contributed to the development of a tolerant attitude to innovation among all participants in the educational process. The surveys conducted and their results showed a high degree of satisfaction among parents and social workers with the proposed activities (66% of respondents found inclusive education useful), as well as increased interest among parents in attending consultations and group classes (73%).

The results indicate a high level of acceptance by parents, social workers, and educators of the need to introduce the principles of inclusive education into the modern educational space of Ukrainian schools.

The development of adaptive programs for inclusive education, which involves identifying the most effective inclusive technologies that can be introduced in Ukraine, is promising for further research.

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