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The role of learning environment in teaching English in the context of inclusive education

The article discusses the basic principles of inclusive education in a comprehensive school for students with special educational needs at the English lesson from the perspective of their application in the educational process. The concept of «inclusive education» and its significant difference from the «integrated education», pointing to the availability/non-availability of the learning environment adaptation to students with special educational needs, have been studied as well. The application of the learning environment theory when teaching English within the inclusive education and its main components have also been examined. The study reveals English teachers' basic needs for creating learning environment teaching techniques in the context of the inclusive education. It also defines the concept «learning environment» and its main components. The study results conducted to define the availability/non-availability of a barrier-free learning environment, in particular, in English classrooms for implementing the inclusive education principles, have been shown and analyzed. The ways to create learning environment at the English lessons, promoting a respectful assistance to disabled students when learning English, have been studied. The group training and other teaching methods, promoting the development of disabled students' communicative and other skills while interacting with classmates in English classes, are given.

Keywords: inclusive education in Kazakhstan, learning environment, integrated education, English Teaching Methodology, disabilities, mental retardation, special educational needs, teaching students with special educational needs, special methodology.

Introduction

The main problem faced by the Educational Institution employees is difficulties in implementing the inclusive education principles, which are caused by a lack of a common understanding of inclusive education. In particular, the Republic of Kazakhstan State Educational Program defines the inclusive education as a process providing an equal access to education for all students, taking into account special educational needs and individual abilities [1].

If we understand the definition set forth in the Salamanca Statement verbatim and assume that the inclusive education involves taking into account special educational needs and individual abilities with the environment adaptation to such needs in a comprehensive school, then such a definition does not contradict the inclusive education principles. The Salamanca Statement also defines the need to take into account various unique characteristics, interests, abilities and training needs of each child when developing teaching materials to fully meet student's special educational needs [2].

However, in practice, the inclusive education is restricted only by an equal access to quality education without taking into account each student's special educational needs. The system in which all students are provided with an equal access to quality education, regardless of their special educational needs, is the integrated education [3, p. 28]. A significant difference between integrated and inclusive education is that the first does not take into account the special educational needs of each student, but expects from such students to meet certain requirements according to the education system and curriculum. Therefore, the inclusive education needs adapting educational programs and environment to special needs of students by using special correctional teaching methods, without any discriminatory situation for such pupils [4].

Successful inclusive education of students with special educational needs in a comprehensive school requires both creation of certain conditions for a full interaction of a teacher and a child on reaching educational goals and a special way of educational management [5, p. 31]. In addition to adapting educational programs and educational support of various specialists, including a specialist on mental defects and physical handicaps, an educational psychologist and others, these conditions include the educational environment adequate for a student and his learning.

The educational environment as an active, communicative and man-made environment that provides conditions for influencing personality's formation and development according to a given instruction is, on the one hand, considered as a process of communication and interaction with adults and peers [6, p. 98], and, on the other hand, these are the subjects being learning sources that surround a student [7, p. 50]. The student can achieve more than what is within his own abilities when applying to the educational environment opportunities and resources [8].

Experimental

In order to study the educational environment for implementing training among students with special educational needs in a general academic school (inclusive education) and to determine the readiness of English classrooms for inclusive education, the following scientific methods were used: the research and analysis of scientific and teaching materials with a focus on special, general educational and inclusive education, creating an educational environment in the learning process and at English lessons; a survey of English teachers in general academic schools; lesson observation; qualitative and quantitative analysis.

Results and discussion

A successful educational environment organization requires a system with such structural elements as a set of applied educational technologies, teaching materials and those involved in the educational process [9, p. 546]. Educational technologies include classroom facilities, information and communication technologies, modes of instruction and teaching methods.

The teaching material includes everything based on the knowledge gained by a student. It is not restricted only to teaching material ordered by the Ministry of Education [10], but includes all the knowledge and each subject's course content available to a student as well as the information that the student receives from the objects around us by increasing the knowledge gained and developing functional literacy.

The subjects of the educational process are all participants involved in the educational process, contributing to personality development: specialists providing counselling support to students with disabilities [11, p. 24]; a teacher; classmates and other school students; parents [12].

According to the State Program of Education Development in the Republic of Kazakhstan for the period of 2020–2025, no conditions were created for the inclusive education in a significant part of educational organizations until January 2020, which poses a threat to the safe and comfortable life of children. As for schools in the Republic of Kazakhstan, only 60 % of them created conditions for barrier-free access to students with special educational needs [13].

Therefore, in December 2019, within the framework of studies and determination of classroom readiness for training within the inclusive education, we conducted a survey of seventy English teachers in general education schools in order to define the level of knowledge concerning the inclusive education and the main material-and-technical and pedagogical problems, faced by teachers when training in an inclusive classroom. The survey was conducted both among teachers who work in the inclusive class, and among those who work in a general non-inclusive class, and in a special correctional class (three people). In total, seventy English teachers took part in the survey.

Only nine teachers attended advanced training courses on teaching within the inclusive education among fifty five interviewed who work in a non-inclusive class. Three teachers attended such advanced training courses among twelve interviewed who work in an inclusive class. None of three teachers interviewed working in a special correctional class attended such courses.

Teachers were asked to give an answer related to the readiness of the English classroom for teaching within the inclusive education (Fig. 1 and 2).

Ten of all surveyed noted that their classroom is ready for training in an inclusive education environment (Fig. 1). However, only three of them left unanswered the question of what's lacking in the classroom for training children with special educational needs. None of those who answered in both questions that the classroom is ready for teaching English work in inclusive or special correctional classes.

Three more teachers, who believed that their classroom was ready to teach inclusive children but were still lack of facilities for organizing inclusive education, noted that they work in an inclusive class. And two of them attended advanced training courses on inclusive education.

Forty six of all English teachers interviewed believe that their classroom is unready for teaching children within the inclusive education (Fig. 1). However, three of them in the next question found it difficult to say what facilities they were lack for organizing inclusive education. None of those who found it difficult to

give this answer works in an inclusive or special correctional class. The lack of experience in an inclusive class can be explained by the fact that teachers surveyed are not aware of what special educational needs of students are faced or may be faced by those who teach English in an inclusive environment.

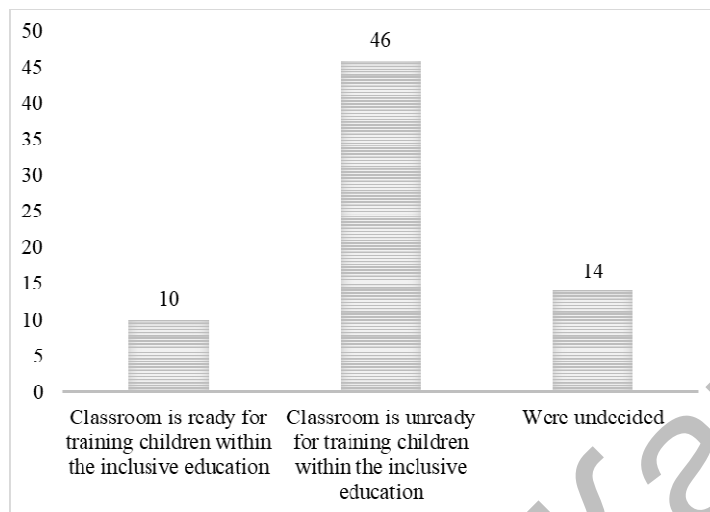


Figure 1. The survey results on readiness of the English classroom for training children within the inclusive education

And fourteen surveyed were undecided on classroom readiness for training children in an inclusive class (Fig. 1). However, thirteen of them said in the next question what facilities they were lack of for training in the conditions mentioned above.

Based on the results obtained, it can be concluded that only three out of seventy teachers surveyed are ready to teach English in an inclusive learning environment, which is a very low figure, i.e. four percent.

In the next question, teachers were asked to determine what kind of facilities they were lack of in the classroom for teaching in an inclusive environment. Four possible answers were proposed: special desks and chairs; supporting tables and posters; information and communication training tools (interactive whiteboard, raised floor, multimedia projector, computers with Internet access); were undecided. The survey results are shown in Figure 2.

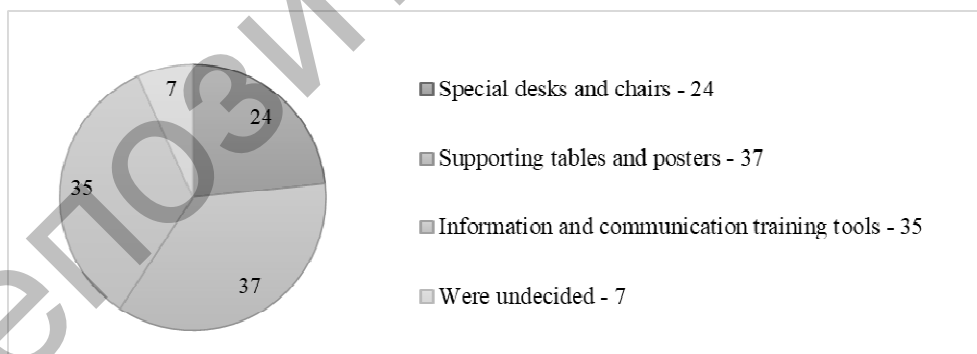


Figure 2. The survey results on what facilities are the interviewed lack of in the classroom

Special desks and chairs allow students with muscle-skeleton and autistic spectrum disorders to feel more comfortable in the learning process and to satisfy their special educational needs [14, p. 103].

Supporting tables and posters are needed to provide students with special educational needs for an easier perception and application of teaching material. The tables and posters mentioned above can be made both typographically and by the learners themselves. When making such kind of supporting material, the individual needs of students involved in its creation are taken into account. In addition, if supporting material is made in a group, the communicative skills of both students with special educational needs and ordinary students are developed, i.e. all students are involved in the work [12]. It provides an easier perception for stu-

dents to remember teaching material according to which the poster is created. Practice shows that there is no strict requirement for such a poster or table to be a part of classroom methodical training. The creation of such kind of instructional material is permissible in the students' notebooks.

Information and communication training tools are also a part of the educational environment technical component. For example, individual students may feel uncomfortable when learning in the classroom. However, information and communication teaching tools help observing the learning process without participating in it directly [15, p. 20]. The ICT can also be used as support tools for the disabled learners in perceiving a new material or completing assignments.

It should be noted that none of the English teachers interviewed chose their answer option, which provides difficulty in understanding the concept of inclusive education for them. However, in fact, the general education classroom facilities where lessons for students with special educational needs are held, are quite diverse and include resource materials for students with hearing disabilities, mental retardation, visually impaired, etc.; brain building games; special appliances, etc. [16, p. 10].

As noted earlier, the learning environment is not limited only to classroom facilities. The learning environment is everything that surrounds each student and includes individualism, teaching and learning goals and objectives, activities that help supporting the students, formative assessment strategies, cultural content affecting learning process and much more [17, p. 490].

For example, students with mental retardation are able to work actively only for 15–20 minutes, after which they become tired, can't focus on the material given and lose their interest towards the learning process. Such a student does not disturb conducting a lesson, but also does not learn himself [18, p. 22.]. If there is a student with mental retardation in the classroom, you may have, for example, cards with prominent letters that can be fingered around for practicing kineme, if such a student learns in the first grade. Or plasticine may be used to develop fine motor skills for primary school students.

For developing autism spectrum learners' fine motor skills, computer games based on gestures can be used. For example, the students are to put colored balls into a color matching box, or string fruit on proper skewers, the distance between which is reduced at a more complex level, which requires more precise fingers movement and contributes to fine motor skills development [19]. A computer can also be used to develop a dialogue as well as to do certain types of tasks. In this case, the use of computer has both advantages and disadvantages: on the one hand, it cannot take the place of areal-life communication, but on the other hand, computer evaluations and feedback have no expressiveness, i.e. are more impartial.

The learning environment is created by the interaction of students with other participants in the educational process as well. At the English lesson, these are classmates of a student with special educational needs and a teacher. However, not all disabled students are able to work in a group immediately. Some of them need to be supported by an educational psychologist for mastering teaching material gradually in a group [18, p. 56], since it is group work which is an important condition for the student socialization.

An essential component of group work is that more capable participants provide support or assistance to less capable students, which is pre-planned or occurs spontaneously. For example, when studying a new lexical topic in elementary school that allows the use of Pictionary, e.g. «Animals», «Plants», «Transport», etc., students can be given the task of creating this kind of Pictionary so that in the future they could use it as a hint in their further work.

Every learner can contribute to the overall work: draw a picture or write a word. However, before starting a group work, students should be given the group work rules: listening skills; eye to eye contact; simple and clear communication; ability to pose questions; team work management; building trust; group decision making; conflict management; encouragement; recognition of participant's contribution; understanding of the others' viewpoint and respect for individual differences [12, p. 62].

The learners' individual differences and abilities in this context mean each student is unique and has his own abilities. The division according to individual differences should not be discriminatory and train learners how to master subject successfully, taking into account their individual abilities: memorization skills, learning methods and leaning towards certain subjects.

For a more successful group work organization, you may offer students to develop the rules independently. According to studies conducted to determine the impact of educational space joint organization on learners' work and well-being, such work has a positive effect on the quality of further work. In addition, the educational environment participants and providers can be both the students by themselves and the teacher and other participants of the learning process: parents, educational psychologists, etc. [20].

Another form of social interaction in the educational process is mutual learning. For example, you can choose the material and hand out it among students. After that, each student will have to act as a tutor and a tutee. The tutor should explain a new material to the tutee by using standard and non-standard methods under the teacher's guidance and check at the next lesson. It should also be noted that students with special educational needs (usually with minor developmental disabilities), when acting as educators, can raise self-esteem and achieve better academic progress, especially if they work with younger students [12, p. 86].

It should be noted that all these types of work can only be conducted after an expert opinion providing counselling support and instruction to students with special educational needs, since such work organization at the English lessons requires special deep knowledge of defectology and psychology.

Conclusion

In accordance with a learner-centered approach, the teacher's activity in the inclusive education process is a continuous development of his professional competence, aimed at achieving humanitarian goals, as a result of which teachers become able to solve professional tasks related to the inclusive education.

The learning environment formation is not a completely new theory. However, under the education reform and in creating conditions for students with special educational needs, this formation acquires new relevance.

Creating learning environment that would be both comfortable for each student and contribute to his development and learning, becomes a top priority along with the curricula adaptation for a teacher.

We should bear in mind that learning environment is primarily based on a trusting relationship between each student and a teacher. The educational environment development should be carried out by both the teacher and students, which will facilitate their further interaction and understanding of working principles within the inclusive education. It is also important to attract another participants outside the educational process: educational psychologists, special education teachers, parents, etc. for creating the educational environment.

Therefore, it is necessary to take into account special needs of each student in order to create the most comfortable learning environment for him. Since, the majority of students with special educational needs require special knowledge in the field of psychology, defectology and special education, it is necessary to make a professional team within the inclusive education that will assist the teacher and students in adapting learning environment to students' special needs in a comprehensive school.

References

- 1 Закон Республики Казахстан от 27 июля 2007 года № 319-III «Об образовании» (с изм. и доп. по сост. на 11.01.2020 г.) [Электронный ресурс]. — Режим доступа: https://online.zakon.kz/document/?doc_id=30118747
- 2 ЮНЕСКО, Саламанкская декларация и Рамки действий по образованию лиц с особыми потребностями. — Париж, ЮНЕСКО; Министерство образования, Испания, 1994 [Электронный ресурс]. — Режим доступа: https://www.un.org/ru/documents/decl_conv/declarations/pdf/salamanka.pdf
- 3 Ратнер Ф.Л. Интегрированное обучение детей с ограниченными возможностями в обществе здоровых детей / Ф.Л. Ратнер, А.Ю. Юсупова. — М.: Владос, 2006. — 175 с.
- 4 Zhetpisbayeva B.A. Problems of language teaching method to children with special educational needs within the inclusive education in Kazakhstan / B.A. Zhetpisbayeva, D. Kh. Shalbayeva // Bulletin of the Karaganda University. Pedagogy series. — 2019. — No. 1(93). — P. 45–50.
- 5 Баранова О.И. Психолого-педагогические условия инклюзивного образования / О.И. Баранова // Историческая и социально-образовательная мысль. — 2016. — Т. 8, № 5/3. — С. 30–33.
- 6 Ясвин В.А. Образовательная среда: от моделирования к проектированию / В.А. Ясвин. — М.: Смысл, 2001. — 365 с.
- 7 Слободчиков В.И. Новые ценности образования: Тезаурус для учителей и школьных психологов / В.И. Слободчиков. — М., 1995. — 110 с.
- 8 Zhetpisbayeva B.A. Application of «zone of proximal development» theory in teaching foreign languages within inclusive education / B.A. Zhetpisbayeva, D. Kh. Shalbayeva // Bulletin of Kazakh state women's teacher training university. — 2019. — № 2(78). — P. 134–141.
- 9 Щербакова Т.Н. К вопросу о структуре образовательной среды учебных учреждений / Т.Н. Щербакова // Молодой учёный. — 2012. — № 5(40). — С. 545–547.
- 10 Приказ Министра образования и науки Республики Казахстан от 17 мая 2019 года № 217 «Об утверждении перечня учебников, учебно-методических комплексов, пособий и другой дополнительной литературы, в том числе на электронных носителях» [Электронный ресурс]. — Режим доступа: https://online.zakon.kz/document/?doc_id=33691981
- 11 Шкутина Л.А. Кадровый потенциал как основной фактор успешной реализации инклюзивной системы образования / Л.А. Шкутина, А.Р. Рымханова, Н.В. Мирза, Г.С. Ашимханова, Г.К. Алшынбекова // Вестн. Новосиб. гос. пед. ун-та. — 2017. — Т. 7, № 1. — С. 24–29.

- 12 Митчелл Д. Эффективные педагогические технологии специального и инклюзивного образования: главы из книги / Д. Митчелл; пер. с англ. И.С. Аникеев, Н.В. Борисова. — М.: Перспектива, 2011. — 138 с. — Режим доступа: http://center-prof38.ru/sites/default/files/one_click/mitchel_tehnologii.pdf
- 13 Постановление Правительства Республики Казахстан от 27 декабря 2019 года № 988 «Об утверждении Государственной программы развития образования и науки Республики Казахстан на 2020–2025 годы» [Электронный ресурс]. — Режим доступа: https://online.zakon.kz/Document/?doc_id=33927070
- 14 Лихоедова Л.Н. Теория и практика инклюзивного образования: учеб. пос. для группы спец. «Образование» / Л.Н. Лихоедова. — Костанай: КГПИ, 2017. — 165 с.
- 15 Davis P. Teaching Strategies and Approaches for Pupils with Special Educational Needs: A Scoping Study / P. Davis, L. Florian. — Queen's Printer, 2004. — 87 p.
- 16 Организация специальных образовательных условий для детей с ограниченными возможностями здоровья в общеобразовательных учреждениях: метод. реком. / отв. ред. С.В. АLEXИНА. — М.: МГППУ, 2012. — 92 с.
- 17 Bates A.W. Teaching in a Digital Age by Anthony William (Tony) Bates / A.W. Bates. — Tony Bates Associates Ltd Vancouver BC. — 572 p.
- 18 Староверова М.С. Инклюзивное образование. Настольная книга педагога, работающего с детьми с ОВЗ: метод. пос. / М.С. Староверова. — М.: Владос, 2011. — 167 с.
- 19 Cai S. A case study of gesture-based games in enhancing the fine motor skills and recognition of children with autism / S. Cai, G. Zhu, Y.-T. Wu, E. Liu, X. Hu // Interactive Learning Environments. — February 2018. DOI: 10.1080/10494820.2018.1437048.
- 20 Mäkelä T. Student participation in learning environment improvement: analysis of a codesign project in a Finnish upper secondary school / T. Mäkelä, S. Helfenstein, M.-K. Lerkkanen, A.-M. Poikkeus // Learning Environments Research. — July 2017. DOI: 10.1007/s10984-017-9242-0

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Инклюзивті білім берудегі ағылшын тілін оқытудағы білім беру ортасының рөлі

Мақалада жалпы беру мектептерінде ерекше білім беру қажеттілігі бар білім алушыларға ағылшын тілі сабағында инклюзивті білім берудің негізгі қағидалары және оларды білім беру процесінде қолдану қарастырылған. «Инклюзивті білім» ұғымы және оның білім беру ортасының, оқушыларының ерекше білім беру қажеттіліктерінің болуының/болмауының негізінде жасалған «интеграцияланған білім» тұжырымдамасынан маңызды айырмашылығы зерттелген. Жалпы білім беретін мектепте инклюзивті білім беру жағдайында ағылшын тілін оқыту процесінде білім беру ортасы теориясының және оның компоненттерінің қолданылуы қарастырылған. Инклюзивті білім беруде ағылшын тілі мұғалімдерінің оқыту үшін негізгі қажеттіліктері білім беру ортасының техникалық жабдықталуын жасауға бағытталған. «Білім беру ортасы» ұғымына анықтама беріліп, оның негізгі компоненттері бөлектелген. Жалпы білім беретін мектептерде кедергісіз білім беру ортасының болу немесе болмау нәтижелері зерттелген және талданған, атап айтқанда, инклюзивті білім беру қағидағтарын іске асыру үшін ағылшын тілі кабинеттері көрсетілген. Инклюзивті оқыту жағдайында ағылшын тілі сабақтарында ағылшын тілін оқыту процесінде ерекше білім беру қажеттіліктері бар оқушыларға кемсітудің көмегі көрсетуге ықпал ететін білім беру ортасын құру жолдары зерттелген. Сынныптастарымен ағылшын тілі сабақтарында ерекше білім беру қажеттіліктері бар оқушылардың коммуникативті дамуын және басқа да дағдыларын қалыптастыруға ықпал ететін топтық оқытудың және оқытудың басқа әдістерінің түрлері келтірілген.

Кілт сөздер: Қазақстандағы инклюзивті білім, оқыту ортасы, кіріктірілген оқыту, ағылшын тілін оқыту әдістері, денсаулығы шектеулі, ақыл-ойының дамуының тоқтауы, арнайы білім қажеттіліктері, ерекше білім қажеттіліктері бар балаларды оқыту, кіріктірілген оқыту, арнайы әдістер.

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Роль образовательной среды в обучении английскому языку в условиях инклюзивного образования

В статье рассмотрены основные принципы инклюзивного образования с позиции их применения в образовательном процессе обучающихся с особыми образовательными потребностями, занимающихся в общеобразовательной школе, на уроках английского языка. Исследовано понятие «инклюзивное образование» и его существенное отличие от понятия «интегрированное образование», заключенное в наличии/отсутствии адаптации образовательной среды под особые образовательные потребности обучающихся. Рассмотрено применение теории образовательной среды в процессе обучения английскому языку в условиях инклюзивного образования в общеобразовательной школе и её основные компонен-

ты. Определены основные потребности учителей английского языка для создания технического оснащения образовательной среды для обучения в условиях инклюзивного образования. Дано определение понятия «образовательная среда», выделены её основные компоненты. Продемонстрированы и проанализированы результаты исследования, проведенного в рамках определения наличия или отсутствия безбарьерной образовательной среды в общеобразовательных школах, в частности, в кабинетах английского языка для реализации принципов инклюзивного образования. Исследованы способы создания образовательной среды на уроках английского языка, способствующие недискриминирующей помощи обучающимся с особыми образовательными потребностями в процессе изучения английского языка в условиях инклюзивного образования. Приведены формы группового обучения и другие приёмы обучения, способствующие развитию коммуникативных и формированию иных навыков обучающихся с особыми образовательными потребностями в процессе взаимодействия с одноклассниками на уроках английского языка.

Ключевые слова: инклюзивное образование в Казахстане, образовательная среда, интегрированное обучение, методика преподавания английского языка, ограниченные возможности здоровья, задержка психического развития, особые образовательные потребности, обучение детей с особыми образовательными потребностями, интегрированное обучение, специальные методы.

References

- 1 Zakon Respubliki Kazakhstan ot 27 iuliia 2007 hoda № 319-III «Ob obrazovanii» [The Law of the Republic of Kazakhstan on Education of July 27, 2007 № 319-III] *online.zakon.kz* Retrieved from https://online.zakon.kz/document/?doc_id=30118747 [in Russian].
- 2 The UNESCO Salamanca Statement and Framework for Action on Special Needs Education (1994). Paris, UNESCO; Ministry of Education, Spain. *www.un.org* Retrieved from https://www.un.org/ru/documents/decl_conv/declarations/pdf/salamanka.pdf
- 3 Ratner, F.L., & Yusupova, A.Yu. (2006). *Intehrirovannoe obuchenie detei s ohranichennymi vozmozhnostiami v obshchestve zdorovykh detei* [Integrated education of children with disabilities in a healthy children society]. Moscow: Vldos [in Russian].
- 4 Zhetpisbayeva, B.A., & Shalbayeva, D.Kh. (2019). Problems of language teaching method to children with special educational needs within the inclusive education in Kazakhstan. *Bulletin of the Karaganda University. Pedagogy series, 1*, 45–50.
- 5 Baranova, O.I. (2016). Psikhologo-pedahohicheskie uslovia inkluzivnogo obrazovaniia [Psychological and educational conditions of inclusive education]. *Istoricheskaiia i sotsialno-obrazovatelnaia mysl — Historical and socio-educational thought, 8, 5/3*, 30–33 [in Russian].
- 6 Yasvin, V.A. (2001). *Obrazovatelnaia sreda: ot modelirovaniia k proektirovaniuu* [Learning environment: from modeling to design]. Moscow: Smysl [in Russian].
- 7 Slobodchikov, V.I. (1995). *Novye tsennosti obrazovaniia: Tezaurus dlia uchitelei i shkolnykh psikhologov* [New relevance of education: Thesaurus for teachers and school psychologists]. Moscow [in Russian].
- 8 Zhetpisbayeva, B.A., Shalbayeva, D.Kh. (2019). Application of «zone of proximal development» theory in teaching foreign languages within inclusive education. *Bulletin of Kazakh state women's teacher training university, 2*, 134–141.
- 9 Shcherbakova, T.N. (2012). K voprosu o strukture obrazovatelnoi sredy uchebnykh uchrezhdenii [On educational institutions learning environment]. *Molodoi uchenyi — Young scientist, 5*, 545–547 [in Russian].
- 10 Prikaz Ministra obrazovaniia i nauki Respubliki Kazakhstan ot 17 maiia 2019 hoda № 217 «Ob utverzhdenii perechnia uchebnikov, uchebno-metodicheskikh kompleksov, posobii i druhoi dopolnitelnoi literatury, v tom chisle na elektronnykh nositeliakh» [The Order of the Minister of Education and Science of the Republic of Kazakhstan of May 17, 2019 № 217 «On the Approval of the List of textbooks, teaching materials, manuals and other additional reference, including electronic media»]. *online.zakon.kz* Retrieved from https://online.zakon.kz/document/?doc_id=33691981 [in Russian].
- 11 Shkutina, L.A., Rymkhanova, A.R., Mirza, N.V., Ashimkhanova, G.S., & Alshynbekova, G.K. (2017). Kadrovyy potentsial kak osnovnoi faktor uspeshnoi realizatsii inkluzivnoi sistemy obrazovaniia [Human resources as the main factor in the successful implementation of inclusive education system]. *Vestnik Novosibirskogo gosudarstvennogo pedahohicheskogo universiteta — Bulletin of the Novosibirsk State Pedagogical University, 1, 7*, 24–29 [in Russian].
- 12 Mitchell, D. (2011). Effektivnye pedahohicheskie tekhnologii spetsialnogo i inkluzivnogo obrazovaniia: hlavy iz knihi [Effective educational technologies of special and inclusive education: chapters from book]. Moscow: Perspektiva [in Russian].
- 13 Postanovlenie Pravitelstva Respubliki Kazahstan ot 27 dekabria 2019 hoda № 988 «Ob utverzhdenii Hosudarstvennoi prohrammy razvitiia obrazovaniia i nauki Respubliki Kazakhstan na 2020–2025 hody» [The Decree of the Government of the Republic of Kazakhstan of December 27, 2019 № 988 «On approval of the State program for education and science development of the Republic of Kazakhstan for the period of 2020–2025»] *online.zakon.kz* Retrieved from https://online.zakon.kz/Document/?doc_id=33927070 [in Russian].
- 14 Likhoyedova, L.N. (2017). *Teoriia i praktika inkluzivnogo obrazovaniia: uchebnoe posobie dlia hruppy spetsialnostei «Obrazovanie»* [Theory and practice of inclusive education: a manual for specialties group «Education»]. Kostanai: KSPI [in Russian].
- 15 Davis, P., & Florian, L. (2004). *Teaching Strategies and Approaches for Pupils with Special Educational Needs: A Scoping Study*. Queen's Printer.
- 16 Alekhina, S.V. (2012). *Orhanizatsiia spetsialnykh obrazovatelnykh uslovii dlia detei s ohranichennymi vozmozhnostiami zdorovia v obshcheobrazovatelnykh uchrezhdeniakh* [Organization of special educational conditions for children with disabilities in educational institutions]. Moscow: MGPPU [in Russian].
- 17 Bates, A.W. (2014). *Teaching in a Digital Age by Anthony William (Tony) Bates*. Tony Bates Associates Ltd Vancouver BC.

18 Staroverova, M.S. (2011). *Inkliuzivnoe obrazovanie. Nastolnaia kniha pedahoha, rabotaiushcheho s detmi s OVZ* [Inclusive Education. Handbook of a teacher working with disabled children]. Moscow: Vldos [in Russian].

19 Cai, S., Zhu, G., Wu, Y.-T., Liu, E., & Hu, X. (2018). A case study of gesture-based games in enhancing the fine motor skills and recognition of children with autism. *Interactive Learning Environments*.

20 Mäkelä, T., Helfenstein, S., Lerkkanen, M.-K., & Poikkeus, A.-M. (2017). Student participation in learning environment improvement: analysis of a codesign project in a Finnish upper secondary school. *Learning Environments Research*.

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