Iwona Chrzanowska

Adam Mickiewicz University, Poznań

ORCID – 0000-0003-1911-8984

EDUCATIONAL SPACE IN INCLUSIVE EDUCATION – CHALLENGES IN WORKING WITH A DIVERSE GROUP/CLASS*

Introduction: Nowadays, teachers must be aware that the student population in school classes is becoming increasingly diverse. Therefore, it is necessary to design educational spaces that not only cater to the diverse needsof students but also align with the requirements of the 21ˢᵗ century.

Research Aim: This research seeks to investigate the importance of educational spaces when working with a diverse group or class in inclusive education. The research question focuses on understanding how to design, why to change educational spaces in education.

Evidence-based Facts: The educational environment can play the role of the "third teacher" and either support or hinder the development of students. Engaging educational environments are crucial for the cognitive, physical, social, and emotional development of students. They promote critical thinking, communication, collaboration, and creativity, all of which are considered essential competencies in 21ˢᵗ-century education.

Summary: Diverse student needs require diverse learning spaces to meet the requirements and address the needs of every student. These spaces are often described using metaphors like a watering hole, cave, campfire, or laboratory. Students should be involved in the creation of educational spaces. However, students' perspectives are frequently overlooked. Research findings indicate that considering their input enhances the likelihood of providing better and more effective support for their development. In traditional education, teachers play a central role in selecting teaching methods and determining modes of school communication. There are already examples of how to transform a school's environment to make it inclusive for everyone.

Keywords: school educational space, diverse class

INTRODUCTION

Today, teachers must be aware that the student population in preschool or school classes is becoming increasingly diverse. Therefore, it is necessary to design educational activities that not only respond to the diverse needs, abilities, and potential of students but also meet the requirements of the 21st century (Cook-Sather, 2002). One of the crucial aspects of designing educational activities is the educational space. This concept is broad and extends far beyond physical space, including buildings, furniture, and decorations. Space is a dimension of reality that influences human behavior and serves as a means of cultural expression. When discussing educational space, it also represents a unique vision of the future reality that today's students will co-create and shape. Educational space can be examined from at least a few dimensions: physical, social, and, in the context of 21st-century challenges, virtual.

RESEARCH AIM AND QUESTION

The research problem focuses on attempting to answer the question of how to build, why to change, and modify educational space in inclusive education (education for all). The issue revolves around reflecting on the significance of educational space for the functioning of school students. The specific context of the discussion is the diversity among preschool/school children/students resulting from the disabilities of these children/students. The cognitive aim of the research was to explore the importance of educational space in working with a diverse group/class within inclusive education (education for all). What barriers to the development and education of students does the transmissive school model create? What potential challenges does the does the kindergarten/school encounter in constructing an educational space in the context of a progressively diverse group/class?

EVIDENCE-BASED REVIEW

People experience space, "perceive it, organize it, and evaluate it, but often they cannot speak directly about it, recognize its mechanisms, and how it conditions their lives" (Dubis, 2017, p. 254). There are various spaces (such as family, school, etc.) in which humans functioning. They play different roles in these spaces, accompanied by various emotions. These spaces interpenetrate to varying degrees and influence each other. Human living spaces are also influenced by factors such as culture, tradition, the level of economic and social development.

When considering the educational space of schools, it is worth noting that its organization is usually reserved for adults, teachers, and individuals responsible

for the education system in each country. Students are much less frequently included in this process. Students are not actively involved in designing, modifying, or changing education. Their perspectives are often overlooked. However, research indicates that when students' perspectives are considered, when children/students are listened to, the chances of better, more effective support for their learning and development increase (Cook-Sather, 2002). Article 12 of the Convention on the Rights of the Child by UNICEF states that when adults make decisions affecting children, the children have the right to express what they think should happen, and their opinions must be considered (UNICEF, 2014). The Convention does not exclude any child from this right, regardless of their age or level of ability. The concept of inclusive education emphasizes the importance of creating an educational environment where every student has an equal chance of success.

Among numerous definitions and perspectives on the concept of inclusive education, which are the result of transformations occurring in most countries, one can find one that relates to the perspective of creating a community (Gajdzica, 2022). Gajdzica describes it as a deconstructive concept, as opposed to the reconstructive concept, corresponding to definitions of inclusive education as a shared space of upbringing and education; focusing primarily on the needs of students requiring specialized support; concentrating on the needs of all students (Gajdzica, 2022, p. 15). According to Gajdzica, Polish experiences place us somewhere between the second and third stage of inclusive education development. It is a fact that students requiring specialized support are already present in the space of mainstream schools. Therefore, designing educational space becomes a crucial aspect of this idea because space can influence the way students learn, interact, and engage.

Seeking key concepts related to space, including educational space, several models concerning the relationship between individuals and their life environment can be identified. In the model of affective assessment of the physical environment, the significance of emotions and feeling in relation to what the physical environment offer is emphasized (Russell and Lanius, 1984). Emotions can be positive or negative, and at the same time, the physical environment can be highly stimulating or, conversely, less stimulating. Another essential concept is the idea of "place", referring, for example, to the prevalence of common spaces over private ones in schools. In the former case, the organization of space may force too many interactions, which can be perceived as invasive, threatening privacy, or private places may foster alienation and a sense of loneliness. In Polish conditions, the school and classroom layout are quite standardized. This space is similar in its characteristics to public utility objects, and its organization is subordinated to functionality (so that participants can easily adjust their behaviors to the desired pattern of activity) (Wieczorek et al., 2015). The activity pattern seems crucial in this context for planning and organizing educational space. Other interesting theoretical references

regarding the construction of educational space can be found in theories such as attention restoration theory (Kaplan and Kaplan, 1982) and the concept of activity centers (Barker, 1968; Bell et al., 2001). Studies on the educational space concerning the social aspect of school life indicate three categories of space: public space (encompassing adherence to rules – e.g. the classroom); private space (limited to close individuals, classmates – e.g. the school hallway); intimate space, accessible only to the closest individuals (Nalaskowski, 2002). Another classification distinguishes dimensions of space: physical, and architectural, social and cultural, and, in the contemporary context of 21st-century challenges, also virtual and technological.

It should be understood broadly as the overall context in which learning takes place (Dumont et al., 2013). In most European countries, schools have a similar architectural design. "They somewhat resemble prison cells where education is locked away. The learning space is confined within walls, standardized (with the same dominant arrangement of desks, one blackboard as the main medium), and entrusted to one master of ceremonies – the teacher" (Górkiewicz and Kozak, 2016, p. 9). Such solutions are often justified by the high costs of building modernization and the lack of financial resources for such actions. It is also a necessity, at least in the Polish educational space, to address other more pressing issues, such as the increasingly recognized lack of specialists in educational institutions (e.g. psychologists, special educators), whose provision to students in inclusive education becomes a key element of pro-inclusive actions. This includes the need to respond to the challenges of students with mental health problems or depression (NIK, 2020). On the other hand, traditional organizers. Students divided into small groups (classes) in a confined space during lessons are easier to control for teachers, especially in the context of imposed rules, regulations, or communication style.

Virtual and technological space expands the learning environment, changing communication methods and work models. This alters the role of the teacher and student expectations. However, there are still significant challenges in integrating new technologies into the education process, such as banning mobile phones during lessons or lack of Wi-Fi access (Górkiewicz and Kozak, 2016). The social and cultural dimension of educational space refers to social relationships and the values shaped during education. All dimensions of educational space holistically shape both current and future human functioning in diverse social roles. It is important whether a child/student will be a passive recipient, forced to adhere to rules established by adults, or will become an active participant in planned changes.

From research reflection, engaging educational environments are essential for the cognitive, physical, social, and emotional development of children/students. They allow concepts and ideas to be connected and new mental schemas to be created (Klefstad, 2015). Students are more engaged in learning when the school environment is designed in negotiation with them, and their voices are heard and considered. Teachers become partners in the students' learning (Callaghan, 2013).

The results of scientific research clearly point to both favorable and unfavorable organizational elements in student education. For example, greater access to natural light contributes to higher achievements in mathematical tests (Schneider, 2002). Poor technical condition and neglected appearance of the school result in more frequent occurrence of undesirable behaviors and poorer academic performance (Evans et al., 2010). The renovation of the school's external environment through measures like increasing greenery leads to a reduction in student stress and an improvement in their well-being (Kelz et al., 2013). A decade ago, members of the Problem Team for Educational Policy of the Committee on Pedagogical Sciences of the Polish Academy of Sciences highlighted that the organizational structure of the school/class is more aligned with the 19th-century reality than the challenges of the 21st century (Bałachowicz, 2017). Education is oriented towards the certainty of one's assumptions and proposed resolution, viewing progress as a vision for the development of individuals and society, and regarding adaptation as a form of behavior that can be pursued as an objective. Certainty, progress, and adaptation are attributes of education suitable for a world that no longer exists, for a reality that is no longer present (Nowak-Dziemianowicz, 2014, p. 31). Despite this observation, there has been little change in this aspect. It appears that teachers still function as "carriers" of information and experts in achieving narrowly defined goals, essentially treating all students as a "collective object of upbringing" (Bałachowicz, 2017). The research trend in the field of sociology of education, focusing on the "ecology of the classroom", underscores the importance of understanding the social organization of class/school life, interactions, comprehension, and meaning-making by both students and teachers in the context of the reality they navigate. This understanding is crucial for grasping the social processes of school socialization (Mikiewicz, 2016).

The educational environment can play the role of the "third teacher" (Robson and Mastrangelo, 2017) and support the student's development and potential. The concept of educational space as the "third teacher" is not just a backdrop for the learning and teaching process. The educational space should play an active role, as pointed out by Loris Malaguzzi (Wexler, 2004). The space that serves as the "third teacher" should be inspiring, cater to diverse student needs, and provide inspiration, tranquility, and relaxation without the teacher's intervention. The teacher should provoke action based on a good understanding of the developmental and group processes, as well as pedagogical and psychological knowledge, rather than teach using ready-made recipes for everyone. "The constructivist pedagogical paradigm requires that learning processes be student-centered and that students be autonomous and active" (Borri, 2021, p. 51). If the teaching model is based on lectures, there is a need to provide desks and chairs in the classroom. Nevertheless, the pedagogical paradigm that includes various teaching methods and student-centered strategies requires a different approach to designing learning

environments. Therefore, there is a need to design spaces that adapt to changing student needs and activities. Modern, open spaces equipped with mobile digital devices and furniture work much better, as static classrooms no longer meet the needs of diverse student groups.

Diverse student needs require space differentiation to meet their requirements and cater to individual students. One idea for such a reorganization of space is the one implemented in a school in Sweden (Jeppesen, 2016). After conducting research among students and teachers, functional spheres were identified and given metaphorical names. These names are based on Thornburg's (2014) concept, which developed the idea of learning zones in the classroom.

Watering hole – a place for learning from peers, learning through conversation and dialogue. It is a place for sharing information. It has a less formal character, fills with energy, and inspires. Everyone can be a student and a teacher here. Flexible arrangement of desks/furniture in the classroom that encourages conversation can create such a space. The typical arrangement of desks in rows, where students face the backs of their peers, does not allow information sharing. In this arrangement, each student must work independently. The central figure is the teacher, the only person facing the students.

Cave – a space for reflection, where one can escape from noise, calmly contemplate, gather thoughts, and find tranquility. Such spaces are lacking in schools, and the problem is not only the lack of these spaces but also the need to provide students with enough time to use the cave space peacefully (Project Novigado, 2021).

Campfire – a lecture space where a group learns from one person. It can be a teacher, but it can also be another student or peer. This type of space is currently overused but should not be eliminated. It is essential to give listeners the opportunity to be actively involved as well. The mistake is reducing the lecture to information transmission. The lecture should not provide complete knowledge but stimulate its discovery. In working with students, the focus should be on asking questions. According to Thornburg, lectures should be integrated with project-based learning (Project Novigado, 2012). In the Swedish project (Vittra School Telefonplan, Stockholm), this type of space is combined with another called "Mountain Top/Stage". It is a space where one person shares knowledge with others, displays their potential, but also their weaknesses (Pacewicz, 2021).

Laboratory – focuses on experimentation (in Thornburg's concept, this space is called "Life"). In this space, it is essential that each student can receive different tasks. It is an environment oriented towards action. Learning can happen through tinkering, constructing, building, and creating. Students can make mistakes and experiment.

Modern schools must become places of cooperation and group work, interaction, design, and the consideration of diverse and individual student needs, as well as the presentation of achievements and development (Borri, 2021). Key compe-

tencies that contemporary schools need to foster are critical thinking, communication, cooperation, and creativity.

The concept of inclusive education (education for all) emphasizes the importance of creating an environment where every student has an equal chance of educational success. A well-adapted space that meets the needs of students can promote inclusion, helping to accommodate the diversity of students, including those with disabilities, and create a more equitable and inclusive educational atmosphere. It is also a space that encourages student engagement. An interactive space tailored to students' needs can encourage greater involvement, motivation, effort, and independence. A space that focuses on adapting to students' needs has the potential to stimulate creative thinking that arises from collaboration and cooperation among students, fostering experimentation. Thus, it promotes the creativity and innovation of students.

Creating flexible learning spaces for working with a diverse group/class requires considering several essential elements. One of them is individual differences resulting from a child/student's disability, as an increasing number of students with disabilities participate in mainstream education. The research findings on inclusive (integrate) education spaces regarding the physical presence of students with disabilities in the school class indicate that they are often separate (Gajdzica, 2008). Such positioning of students with disabilities does not promote their integration with peers. It hinders cooperation, the establishment of positive relationships, and the pursuit of common goals (Wojtas-Rudch, 2020).

A STUDENT WITH DIVERSE DEVELOPMENTAL AND EDUCATIONAL NEEDS IN INCLUSIVE EDUCATION

Individual differences among students are inevitable and entirely natural. However, in the context of inclusive education (education for all), where there is increasing diversity among students in a classroom, individual differences that are significant for designing and constructing educational spaces refer to students with disorders, developmental challenges, and those classified as having special educational needs. Nowadays, the concept of special educational needs is being replaced by the concept of diverse developmental and educational needs. When attempting to define a diverse group in inclusive education (education for all), it is important to note that it includes students with statements or opinions indicating a need for special education, including children/students previously (in Poland) referred to as students with special educational needs. However, in this group, there are also students who do not have statements or opinions but exhibit difficulties that may be temporary or indicative of more serious issues that may arise, especially, when necessary, support does not appear in time. It is also important to

realize that student diversity in a mainstream class/school is not a new phenomenon that has not been observed before. As indicated by data, approximately 70% of students with a special education certificate, expressing a need for special education, fulfill their mandatory schooling in mainstream institutions, and 30% of all mainstream students receive psychological-pedagogical support (MEN, 2020, p. 12; Gajdzica, 2022, p. 16). Student diversity in mainstream school classes has always existed. In contemporary times, it may become even more apparent, not only because the number of students with so-called classic types of disabilities may increase in classes. Nearly 9% of children and adolescents under the age of 18 in Poland exhibit mental disorders requiring professional psychiatric and psychological assistance. Poland also ranks high in Europe in terms of the number of suicides among individuals aged 7–18 (NIK, 2020, p. 5). According to UNICEF data, various forms of mental disorders are present in 10.8% of children aged 10–17 in Poland (UNICEF, 2021).

It is evident that the individual diversity resulting from disabilities is undoubtedly or other developmental challenges among students is and will continue to be a challenge for mainstream schools implementing the concept of inclusive education. This involves the need to adapt the physical space to the needs of students with disabilities, such as hearing, visual, or mobility impairments, and any configurations related to the presence of coexisting disabilities. For example, a student with a visual impairment in a situation where the physical conditions of the building and the school environment are not adapted may lose a sense of independence and self-worth as an individual and a member of the school community. Fear and uncertainty about independent movement can lead to dependence on others (teachers, peers), and other also to social isolation (Czerwińska, 2014). Therefore, it is necessary to ensure access to the building, facilities, and the educational environment and to adapt educational materials. It is also necessary to consider individual learning styles, which, similar to the general population, exist within the group of individuals with disabilities.

Regarding the creation of educational spaces in the context of students with disabilities, an essential dimension is educational support. This includes teacher competencies, their knowledge about the specific needs and functioning of individuals with disabilities, and the implications of a particular disability for achieving educational goals. In inclusive education, teachers are likely to require support from specialists, such as special education teachers experienced in working with specific groups of students with disabilities, in the form of training and advisory cooperation.

Another dimension is the integration of assistive technologies into the teaching process. These technologies go beyond modern tools like interactive whiteboards and educational apps; they also encompass technologies and solutions tailored to individuals with disabilities. Assistive technologies refer to solutions, equipment,

or products used to enhance, preserve, or improve the functioning of individuals with disabilities. According to the International Classification of Functioning, Disability, and Health (ICF), assistive technologies also relate to processes, methods, and technologies used to acquire knowledge and develop competencies or skills by individuals with disabilities (Chimicz, 2020, p. 176). It is crucial to "integrate into everyday school life any available assistive devices adapted to their capabilities and needs, allowing them to overcome barriers and engage in activities within inclusive education" (Chimicz, 2020, p. 178). There is no doubt that mainstream educational institutions do not have equipment that fully meets the requirements for using assistive technologies with students with disabilities. In Poland, as part of the implementation of the pilot program for Specialist Centers Supporting Inclusive Education (ORE, 2020), support was proposed for kindergartens/schools and mainstream institutions, including the establishment of textbook and specialized equipment rental services, teaching aids, and the provision of educational materials for working with children/students with diverse educational needs. The activities of these centers also include advice and training on the selection and use of specialized equipment. Survey research conducted in 2019 among special schools by the Educational Development Center indicated that most institutions have equipment intended to support children and youth. However, the resources of these institutions correspond to their specialization and may be insufficient to implement the activities planned for Specialist Centers Supporting Inclusive Education (supporting students with various types of needs resulting from disabilities). It is important, however, that the financial resources of the project, which funded the pilot, allowed for the purchase of necessary assistive devices for kindergartens and schools. Consequently, if the Specialist Centers Supporting Inclusive Education program is implemented in the next financial perspective, it is possible to provide real support to students in inclusive education (education for all) with assistive technologies.

Important issues, in the context of the participation of students with disabilities in inclusive education, also concern the necessary change of attitudes, especially those that discredit the possibility of inclusive education for children/students with disabilities.

THE QUALITY OF THE EDUCATIONAL ENVIRONMENT – SELECTED CHALLENGES IN WORKING WITH A STUDENT WITH A DEVELOPMENTAL DISORDER

The quality of the educational space becomes a significant challenge in the context of inclusive education. For many years, researchers have been searching for the sources of developmental and educational difficulties in the child's characteristics

and the features of their family environment. Less attention has been paid to critically assessing the activities of educational institutions in this regard (Bidziński, 2016). "Meanwhile, research conducted in the spirit of critical and emancipatory pedagogy often portrays the school as a place generating numerous threats" (Bidziński, 2016, p. 34). In the transmission model of schools, practices of "stabilizing socialization" (Nowicka, 2010) are often applied not only to children with disabilities. Teachers, through controlling intervention, reinforce desired behaviors to align them with the prevailing school norms. In such school practices, there is no room for individuality or the originality of a student's behavior. What is rewarded is obedience and submission to adult authority and school rules. The teaching style is based on directive methods and a lack of trust in students' competencies. This can lead to the belief among teachers that they need to meticulously instruct students, possibly imposing ways of thinking or perceiving reality, coupled with disciplining students and creating a distance between teachers and students. It results in the child's dependency on the teacher's authority and limits their autonomy (Bidziński, 2016; Nowicka, 2010). The reductionist and instrumental approach that dominates in schools leads to a communication barrier characterized by a lack of acceptance of the student's personal language (Klus-Stańska and Nowicka, 2014). "This not only affects the communication strategies used in the classroom but also remains related to the ways of understanding the world promoted by the school and enforced by it" (Klus-Stańska and Nowicka, 2014, p. 103). In Polish schools, a one-sided communication approach based on information transmission still prevails. In the traditional organization of lessons, the teacher is the dominant and central figure (Klus-Stańska and Nowicka, 2014), especially in the communication space. It is like a "one-actor play" (Żytko, 2014). The teacher asks questions and demands immediate answers. "The question-answer model has completely dominated school teaching" (Klus-Stańska and Nowicka, 2014, p. 95). "Such a communication style does not encourage students to cooperate or influence the course of the lesson; instead, it makes students dependent on teachers" (Karoń, 2014, p. 124). This applies to all students, but there is no doubt that students with disabilities are in a much more challenging situation (Buchnat, 2013). They do not always understand the teacher's questions, and they often have more difficulty in providing quick and accurate answers expected by the teacher. A student, especially a student with disabilities, has a better chance of developing social (including communication) competencies when "the teacher uses participatory communication in didactic practice. They invite students to share information, express opinions, beliefs, judgments, ask questions, and answer them, engage in discussions" (Bidziński, 2016, p. 48). The problem isnot just the communication style and patterns in a transmission-based school. During instructional activities, students mainly engage in listening (usually to the teacher's statements) and carrying out tasks assigned by teachers. "Students spend significantly less time on games, educational

activities, creative and research activities, or engaging in conversations and discussions" (Żytko, 2014; Bidziński, 2016, p. 50). It seems that a significantly better solution in working with a student with disabilities is the application of practical, activating methods, The use of methods such as project-based learning can contribute to an increase in the quantity and quality of interactions among students, including the integration of students with disabilities into the learning and teaching process (Buchnat, 2013). However, teachers have a number of concerns related to the use of project-based learning with students with disabilities. They fear, for example: the time-consuming nature of the method in the context of meeting the curriculum requirements (75% of respondents), losing control over the work of individual students (71.4%), the possibility of adequately assessing the work of each student (69%), and losing control over discipline in the class (50%) (Buchnat, 2013). These results seem to indicate teachers' anxiety about relinquishing control over the teaching and learning process and their comfort in implementing education in a transmission model. The problem is that inclusive education cannot be effectively implemented with such an approach. The increasing diversity of needs and capabilities of students in the school class makes frontal teaching (everyone learning the same thing at the same time, with possible differentiation in the difficulty of tasks) meaningless if the goal is the success of every student. What can contribute to the educational success of the student, only briefly mentioned here, is the use of diverse experiences of teachers, collaboration between specialists, and their cooperation. Co-teaching (Szumski et al., 2021; Gajdzica, 2022), as mentioned here, in the context of inclusive education, involves a partnership between a regular educator and special educator (or another specialist). It involves using various models of collaboration, mutual learning, to meet the developmental and educational needs of each student much as possible.

SUMMARY

In summary, it is essential to mention the results of recent international studies conducted by OECD/PISA among 15-year-olds in 2018. These results clearly indicate the areas of necessary action that should be the focus of the Polish educational system. The research on Polish students demonstrates an improvement in assessed competencies: reading comprehension, mathematical reasoning, and scientific reasoning. Polish students are among the top three groups of students from European countries who ranked in the top ten (Sitek, 2019). However, OECD/PISA research has also been addressing other dimensions of students' school experiences, such as learning conditions, social and emotional factors. In this regard, the results for Polish students are not as optimistic. Polish students spend more time on learning than the OECD average. The OECD average is 44 hours per week, while

in Poland, it is 47 hours. In Finland, which has a similar score to Poland, students work 11 hours less. A larger group of Polish students does not feel satisfied with their learning compared to those who do (a 5% difference). Failure as a reason for losing faith in their abilities affects a 12% larger group of Polish students than the reverse situation. There are more (5%) students who feel like outsiders at school. 26% of Polish students feel bullied at school at least several times a month, and only two countries (Hungary and Colombia) have higher rates. In Poland, 48% of students from disadvantaged backgrounds do not believe they could obtain higher education compared to 92% of students from affluent families. Despite this, only 12% of girls and 14% of boys with the best results believe they have a chance for a career. This is one of the worst results in the study (Schleicher, 2019).

The context of the cost of high-ranking positions should be a cause for concern. In this perspective, Polish students appear as young people who are tired and more likely to assess their actions as failures rather than successes. School is not a friendly, safe, or confidence-building environment for them. The focus on individualization in teaching, which was previously lacking, has led to a neglect of competencies related to cooperation and collaboration among students. Directive teaching methods with the teacher in a central role still dominate in schools. If activating or practical methods are used, they are more oriented toward individual rather than group work. Moreover, in most schools (not only in Poland), there is no well-designed space for project-based work, for example. A typical classroom has a traditional arrangement of desks that hinders student cooperation and information exchange. Students can practically communicate only with the teacher, usually while responding to the teacher's questions. The architectural and organizational space of the school, as well as the social space, reflects past rather than contemporary requirements placed on schools. In education for the future, key competencies are creativity, cooperation, communication, and critical thinking. If, as forecasts suggest, about 2/3 of today's students will have to perform jobs that have not yet been invented (Mattila and Silander, 2015), then schools and educational spaces must be changed to develop creative thinking and the ability to collaborate in changing teams. Negotiation and compromise skills must be cultivated. Modern technologies have expanded cooperation and collaboration beyond national borders. Therefore, one essential skill is not only proficiency in using technological tools but also cultural awareness and respect for diversity.

CONCLUSIONS

If education is to be beneficial for all students, schools must change. The issue of building an educational space discussed here seems to be one of the fundamental areas requiring reflection. How can we change schools to make them conducive to

the development of all students? There is no single, short, and immediately applicable solution. However, we can refer to several key challenges.

Schools must move away from a transmission-based teaching approach and the leading role of the teacher in the teaching and learning process. Students must feel that school is for them and caters to their needs – diversified use of time, space, methods, and forms of work. Contemporary discussions often revolve around active and practical teaching methods. However, they are challenging to implement in traditional schools, in classrooms where students mainly see the backs of their peers. We need to listen to students and convince them that they can speak about their needs and ideas for change. We must negotiate and implement these changes collaboratively, so that students feel they are co-organizers and co-responsible for their own learning. We need to change the educational space to make it more diverse, so that students believe that teachers care about more than just the results and grades.

Listening to students' needs, asking questions, and developing bottom-up solutions do not necessarily require significant financial investments. Instead, it involves more creative management and space modification. Spaces such as "watering holes" and "caves" can be created with confidence in almost any educational institution. Different desk arrangements that facilitate student communication and information exchange can inspire the use of active and practical methods that engage students more than teachers. Teachers should become inspirers and supporters, rather than the sole source of knowledge. Students will learn to talk to each other, discovering that each person is good at something, each person has competencies in some area or role.

REFERENCES

Bałachowicz, J. (2017). Szkoła jako przestrzeń budowania przyszłości. In J. Bałachowicz, A. Korwin-Szymanowska, E. Lewandowska, A. Witkowska-Tomaszewska, *Zrozumieć uczenie się. Zmienić wczesną edukację* (pp. 11–96). Wyd. APS.

Barker, R.G. (1968). *Ecological Psychology: Concepts and Methods for Studying the Environment of Human Behavior*. Stanford University Press.

Bell, P.A., Fisher, J.D., Greene, T.C., Baum, A. (2001). *Environmental Psychology* (5th ed.). Harcourt College Publishers.

Bidziński, K. (2016). Szkoła ogólnodostępna jako środowisko odkrywania podstaw własnej tożsamości przez uczniów z niepełnosprawnością w młodszym wieku szkolnym. *Interdyscyplinarne Konteksty Pedagogiki Specjalnej, 12*, 31–59. https://doi.org/10.14746/ikps.2016.12.02

Borri, S. (2021). From classroom to learning environment. In D. Scaradozzi, L. Guasti, M. Di Stasio, B. Miotti, A. Monteriu, P. Blikstein (Eds.), *Makers at School, Educational Robotics and Innovative Learning Environments* (pp. 51–54). Springer. Retrieved 3, May, 2023 from: https://link.springer.com/content/pdf/10.1007/978-3-030-77040-2.pdf?pdf=button&error=cookies_not_supported&code=954a11d7-f1c6-4903-a844-62308089cf75

Buchnat, M. (2013). Metoda projektów płaszczyzną inkluzji dla dzieci z lekką niepełnosprawnością intelektualną. *Interdyscyplinarne Konteksty Pedagogiki Specjalnej*, *3*, 31–45. Retrieved 10 September, 2023 from: https://wse.home.amu.edu.pl/czasopisma_naukowe/konteksty/wydania/Interdyscyplinarne_konteksty_pedagogiki_specjalnej_3.pdf

Callaghan, K. (2013). *The environment is a teacher*. Queen's Printer of Ontario. Retrieved 4, September, 2023 from: http://www.edu.gov.on.ca/childcare/Callaghan.pdf

Chimicz, D. (2020). Wykorzystanie technologii wspomagających uczniów z niepełnosprawnościami w edukacji włączającej. *Szkoła Specjalna*, *3*, 175–187. Retrieved 4, September, 2023 from: http://www.szkolaspecjalna.aps.edu.pl/media/2394583/sz-s_3-20_druk.pdf

Cook-Sather, A. (2002). Authorizing student's perspectives: Toward trust, dialogue, and change in education. *Educational Researcher*, *31*(4), 3–14. https://doi.org/10.3102/0013189X031004003

Czerwińska, K. (2014). Przestrzeń w edukacji uczniów z dysfunkcja wzroku. *Szkoła Specjalna*, *4*(275/LXXV), 262–269. Retrieved 10, November, 2023 from: http://www.szkolaspecjalna.aps.edu.pl/media/678966/sz-s-4-14.pdf

NIK. (2020). *Dostępność lecznictwa psychiatrycznego dla dzieci i młodzieży (w latach 2017–2019. Informacja o wynikach kontroli NIK*. Retrieved 10, November, 2023, from: https://www.nik.gov.pl/plik/id,22730,vp,25429.pdf

Dubis, M. (2017). Specyfika relacji interpersonalnych nauczyciel-uczeń w przestrzeni edukacyjnej i wychowawczej. *Pedagogika Przedszkolna i Wczesnoszkolna*, *5*(2/2), 253–265. Retrieved 20, September 2023, from: https://czasopismoippis.up.krakow.pl/wp-content/uploads/

Dumont, H., Istance, D., Benavides, F. (Eds.). (2013). *Istota uczenia się. Wykorzystywanie wyników badań w praktyce*. Wyd. Wolters Kluwer Polska.

Evans, G.W., Yoo, M.J., Sipple, J. (2010). The ecological context of student achievement: School building quality effects are exacerbated by high levels of student mobility. *Journal of Environmental Psychology*, *30*(2), 239–244. https://doi.org/10.1016/j.jenvp.2010.01.001

Gajdzica, Z. (2008). Przestrzeń klasy jako miejsce integracji. In T. Żółkowska, M. Wlazło (Eds.), *Konteksty Pedagogiki Specjalnej*, t. 3: *Socjologiczne aspekty rehabilitacji osób niepełnosprawnych* (pp. 268–271). Wyd. US.

Gajdzica, Z. (2022). Nieobecne lub zaniedbane w polskiej edukacji formy wspierania nauczycieli w edukacji włączającej. *Studia z Teorii Wychowania*, *3*(40), 13–27. https://doi.org/10.5604/01.3001.0016.1122

Górkiewicz, K., Kozak, P. (2016). Środowiska uczenia się w 21. wieku. In *Przestrzenie edukacji 21. Otwieramy szkołę. Wprowadzenie* (pp. 9–11). Retrieved 15, August, 2023 from: https://eduspaces21.ceo.org.pl/sites/eduspaces21.ceo.org.pl/files/eduspaces21_wprowadzenie.pdf

Jeppesen, J. (2016). Tworzenie szkoły: przestrzeń to tylko początek. In *Przestrzenie edukacji 21. Otwieramy szkołę! Wprowadzenie* (pp. 64–67). Retrieved 15, August, 2023 from: https://eduspaces21.ceo.org.pl/sites/eduspaces21.ceo.org.pl/files/eduspaces21_wprowadzenie.pdf

Kaplan, R., Kaplan, S. (1982). *Cognition and the Environment: Functioning in an Uncertain World*. Praeger.

Karoń, J. (2014). Za zamkniętymi drzwiami klasy szkolnej – przemoc werbalna w komunikacji nauczyciela z dziećmi. *Problemy Wczesnej Edukacji*, *10*/4(27), 121–136. Retrieved 10, August, 2023 from: https://czasopisma.bg.ug.edu.pl/index.php/pwe/article/view/866

Kelz, Ch., Evans, W.G., Röderer, K. (2013). The restorative effects of redesigning the schoolyard: A multi-methodological, quasi-experimental study in rural Austrian middle school. *Environment and Behavior*, *47*(2), 119–139. https://doi.org/10.1177/0013916513510528

Klefstad, J.M. (2015). Focus on family: Environments that foster inquiry and critical thinking in young children: Supporting children's natural curiosity. *Childhood Education*, *91*(2), 147–149. Retrieved 4, September, 2023 from: http://www2.uwstout.edu/content/DMAI_files/photos/klefstadj/intellcont/Klefstad-1.pdf

Klus-Stańska, D., Nowicka, M. (2014). *Sensy i bezsensy edukacji wczesnoszkolnej*. Wyd. Harmonia Universalis.

Mattila, P., Silander, P. (Eds.). (2015). *How to create the school of the future – revolutionary thinking and design from Finland*. University of Oulu Centre for Internet Excellence. Retrieved 2, September, 2023 from: https://www.classter.com/wp-content/uploads/2016/09/How-to-create-the-school-of-the-future.pdf

Mikiewicz, P. (2016). *Socjologia edukacji: teorie, koncepcje, pojęcia*. PWN.

MEN. (2020). Model edukacji dla wszystkich. Warszawa. Retrieved 10, November, 2023 from: https://www.gov.pl/web/edukacja-i-nauka/model-edukacji-dla-wszystkich

Nalaskowski, A. (2002). *Przestrzenie i miejsca szkoły*. Impuls.

Nowak-Dziemianowicz, M. (2014). *Oblicza edukacji. Między pozorami a refleksyjną zmianą*. Wyd. DSW.

Nowicka, M. (2010). *Socjalizacja na lekcjach w klasach początkowych: praktyki – przestrzenie – konceptualizacje*. Wyd. Adam Marszałek.

ORE. (2020). *Pilotażowe wdrożenie modelu Specjalistycznych Centrów Wspierających Edukację Włączającą* (SCWEW). Ośrodek Rozwoju Edukacji. Retrieved 10, August, 2023 from: https://www.ore.edu.pl/2020/01/pilotazowe-wdrozenie-modelu-specjalistycznych-centrow-wspierajacych-edukacje-wlaczajaca-scwew/

Pacewicz, A. (2021). *Przestrzeń, w której dobrze się uczy. Jak to osiągnąć w szkole*. Retrieved 3, September, 2023 from: https://szkoladlainnowatora.ceo.org.pl/wp-content/uploads/2021/06/Przestrze%C5%84-w-kt%C3%B3rej-dobrze-si%C4%99-uczy-A.-Pacewicz.pdf

Projekt Novigado. (2021). *Przestrzeń w edukacji. Poradnik dla szkół*. Retrieved 20, August, 2023 from: https://fcl.eun.org/documents/10180/6262339/Novigado-Guidelines-PL.pdf/bb6fa894-c8f7-41bd-b4ab-abad817b56c0

Russell, J.A., Lanius, U.E. (1984). Adaptation level and the affective appraisal of environments. *Journal of Environmental Psychology*, *4*, 119–135. Retrieved 10, November 2023 from: https://www.sciencedirect.com/science/article/abs/pii/S0272494484800298?via%3Dihub

Robson, K., Mastrangelo, S. (2017). Children's views of the learning environment: A study exploring the Reggio Emilia Principle of the environment as the third teacher. *Journal of Childhood Studies*, *42*(4), 1–16. https://doi.org/10.18357/jcs.v42i4.18100

Schleicher, A. (2019). *PISA 2018. Insights and Interpretations*. Retrieved 5, September, 2023 from: https://www.oecd.org/pisa/PISA%202018%20Insights%20and%20Interpretations%20FINAL%20PDF.pdf

Schneider, M. (2002). *Do School Facilities Affect Academic Outcomes?* National Clearinghouse of Educational Facilities.

Sitek, M. (Ed.). (2019). *Program Międzynarodowej Oceny Umiejętności Uczniów. Wyniki badań PISA 2018 w Polsce*. Wyd. Instytut Badań Edukacyjnych. Retrieved 10, August, 2023 from: https://pisa.ibe.edu.pl/wp-content/uploads/2019/12/raport-wyniki-badan-pisa-2018.pdf

Szumski, G., Smogorzewska, J., Narkun, Z., Trębacz-Ritter, A. (2021). Współnauczanie i jego znaczenie dla procesu edukacji. Przegląd badań. *Niepełnosprawność. Dyskursy Pedagogiki Specjalnej*, *44*, 76–97. Retrieved 10, November, 2023 from: https://czasopisma.bg.ug.edu.pl/index.php/niepelnosprawnosc/article/view/6876/6115

Thornburg, D. (2014). *From the Campfire to the Holodeck – Creating Engaging and powerful 21st Century Learning Environments*. Jossey-Bass.

UNICEF. (2014). *Convention on the rights of the child: Rights under the convention on the right of the child*. Retrieved 10, August, 2023 from: http://www.unicef.org/crc/indeks_30228.html

UNICEF. (2021). *Pogarsza się stan zdrowia psychicznego dzieci w Europie*. Retrieved 10, November, 2023 from: https://unicef.pl/co-robimy/aktualnosci/dla-rodzicow/zdrowie-psychiczne-w-europie

Wieczorek, A., Stefańska, J., Kaczan, R., Rycielska, L., Rycielski, P. (2015). *Katalog rozwiązań przestrzennych sali lekcyjnej w nauczaniu wczesnoszkolnym*. Wyd. Instytut Badań Edukacyjnych.

Wojtas-Rudch, A. (2020). Integrated education – spatial organization of classes. *Pedagogical Contexts*, *2*(15), 299–314. https://doi.org/10.19265/kp.2020.2.15.283

Wexler, A. (2004). A theory for living: Walking with Reggio Emilia. *Art Education*, *57*(6), 13–19. https://doi.org/10.1080/00043125.2004.11653571

Żytko, M. (2014). Edukacja językowa w szkole – między dążeniem do formalizacji schematu a refleksją nad uczestnictwem w zdarzeniach komunikacyjnych. In D. Klus-Stańska (Ed.), *(Anty)edukacja wczesnoszkolna* (pp. 315–340). Impuls.

PRZESTRZEŃ EDUKACYJNA W EDUKACJI WŁĄCZAJĄCEJ (EDUKACJI DLA WSZYSTKICH) – WYZWANIA W PRACY Z GRUPĄ/KLASĄ ZRÓŻNICOWANĄ

Wprowadzenie: Współcześnie nauczyciele muszą być świadomi tego, że populacja uczniów w grupie/klasie przedszkolnej/szkolnej będzie coraz bardziej zróżnicowana. W związku z tym, konieczne jest takie projektowanie przestrzeni edukacyjnych, które będzie odpowiadało zróżnicowanym potrzebom, możliwościom, potencjałom uczniów, ale jednocześnie wymaganiom XXI wieku.

Cel badań: Jako cel badań obrano wskazanie jakie znaczenie może mieć przestrzeń edukacyjna w pracy z grupą/klasą zróżnicowaną w edukacji włączającej. Problem badawczy koncentruje się na próbie odpowiedzi na pytanie, jak budować, dlaczego zmieniać i modyfikować przestrzeń edukacyjną w edukacji włączającej (edukacji dla wszystkich).

Stan wiedzy: Środowisko edukacyjne może pełnić rolę „trzeciego nauczyciela" i wspierać rozwój, potencjał ucznia lub odwrotnie – utrudniać go i zaburzać. Obecnie za kluczowe kompetencje w edukacji XXI wieku uznaje się: krytyczne myślenie, komunikację, kooperację i kreatywność. Przestrzeń edukacyjna współczesnej szkoły powinna zatem wspierać rozwój tych kompetencji u każdego ucznia. Edukacja włączająca i coraz większe zróżnicowanie uczniów w zakresie potrzeb rozwojowych i edukacyjnych w klasie szkolnej wydaje się zatem wskazywać na konieczną modyfikację nie tylko przestrzeni fizycznej i architektonicznej szkoły, ale również w większym stopniu skoncentrować się na innych jej (przestrzeni edukacyjnej) wymiarach: społecznym i kulturowym oraz wirtualnym i technologicznym. Tak by odpowiadały trafniej na potrzeby wszystkich uczniów.

Podsumowanie: Zróżnicowane przestrzenie nauczania, uczenia się są opisywane w literaturze z wykorzystaniem metafor, np. jako: wodopój, jaskinia, ognisko, piaskownica/laboratorium. Uczniowie powinni uczestniczyć w ich tworzeniu. Perspektywy dzieci/uczniów są często pomijane, a jak wskazują wyniki badań, gdy są uwzględniane, gdy dzieci/uczniowie są słuchani, zwiększają się szanse na lepsze, skuteczniejsze wspieranie ich nauki i rozwoju. W szkole transmisyjnej nauczyciel jest główną postacią, tak w doborze metod pracy, projektowaniu przestrzeni, jak i sposobów szkolnego komunikowania się. Jednak są już przykłady dobrych praktyk i podpowiedzi, jak zmienić przestrzeń edukacyjną szkoły, by stała się ona przyjazna dla każdego ucznia.

Słowa kluczowe: przestrzeń edukacyjna szkoły, grupa/klasa zróżnicowana