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The role of the teacher in adjusting educational tools in inclusive education for children from Ukraine - case study

## Introduction

Inclusive education is understood as an approach in the process of education and upbringing, aimed at increasing the educational opportunities of students by providing them with individually adapted conditions to develop their own potential, possibly in the vicinity of their place of residence (Błaszczak and Imiołczyk, 2012). Nowadays, this education is a priority in various countries, including the member countries of the Organisation for Economic Co-operation and Development (OECD) (Tarwacki, 2015), e.g., in France, Poland (Wasiukiewicz-Rogulska, 2019, p. 14). It requires a flexible and creative approach by the teacher to the process of transferring knowledge (understood as knowledge, skills and attitudes) and the implementation of educational tasks (Krakowiak, 2021, p. 19). Working in the classroom, the teacher comes into contact with various units that require special attention, these are students with special educational needs (SEN). This type of students includes both gifted students and students broadly understood from the so-called learning difficulties (e.g., students with dyslexia, dysgraphia, dysorthography, dyscalculia, visually impaired, hard of hearing, students with chronic diseases, attention deficit syndrome, etc.). Often, in class teams, there are also students with low motivation to work and "underdiagnosed" who have several minor difficulties, not constituting one named disease entity. Apart from these units, it must not be forgotten that in school classes there are also students with average educational abilities and emotional problems. For all these types of students, the teacher should Individualise Work (The Act of September 7, 1991, Kopek-Putała and Nodzyńska, 2020) incl. by adapting methods and forms. This is a great challenge for the teacher, requiring extensive psychological and pedagogical knowledge. At the same time, this task requires additional activities and is time-consuming for the teacher. Additionally, teachers lack specific guidelines on How to work with a given specific student on a given specific science subject with a small number of hours. (Tips from psychological and
pedagogical counselling centres are very general and not always adequate to the subject taught, for example: "a student with dysgraphia should write in capital letters." For a chemistry teacher, this is a problematic recommendation, because Co and CO in chemistry are two different chemicals.) Every day, the teacher must diagnose the current problems of SEN students and try to help overcome them and at the same time provide adequate incentives for gifted students and other members of the class team. Nowadays, additional requirements related to the presence in classes of students from Ukraine have been added to the tasks of the teacher.

Students from Ukraine (their legal guardians) may choose one of the two educational paths available in Polish: School (www 1)

- A school with a preparatory department
- A school without a preparatory department (the school is obliged to admit a student "temporarily residing" in the perimeter of a given institution, in accordance with art. 133 section 1 and art. 151 section 1 of the Education Law Act of 14 December 2016 (§ 4 section 1 point $1 \S 4$ section 2 of the Regulation of the Minister of National Education of 23 August 2017).
Students from Ukraine entering schools in which no preparatory departments have been established encounter a number of difficulties on their way related to, inter alia, in the broadly understood change of the environment, the education system (including the assessment system and language) and partially the level of everyday functioning and emotional difficulties.

The problems described above particularly affect teachers of public schools in which no preparatory departments have been established. In this case, teachers were added to teach more students with special educational and traumatic needs and experiences and most often with unfamiliarity with the communicative (basic) level of the Polish language.

## Background / literature review

Due to various events in the international arena and technological advances in many areas of life, there is greater mobility among people. Foreigners often come to Poland with their whole families. For this reason, there is a need / necessity for compulsory schooling and education for foreign children (The Education Law Act of 14 December 2016, The Regulation of the Minister of National Education of 23 August 2017). Teaching the content of school subjects with an additional language is becoming increasingly popular (Swain and Johnson, 1997, Dalton-Puffer, 2017). Content-Based Learning (CBI) and Content and Language Integrated Learning (CLIL) are also used to promote language and / or content learning around the world (Cenoz, 2015). Learning in a second language is problematic for a foreigner (Strevens, 1971, 1976). This is due to, inter alia, from research in the field of teaching academic subjects in a foreign language (Gajo, 2007a, 2007b), in particular, we can talk about "linguistic opacity" and "subject density". Even in those situations where bilingual teaching is
constantly practised, teachers informally use the students' mother tongue as the language of explanation to facilitate understanding (Probyn, 2001, Tsui, 2004, Mohanty, 2013, Karabassova, 2020). This shows how difficult it is to learn science in a "second" language. The problem of teaching in a "second" language has been described in several publications. Le Henaff, et al. (2017) in their publication describes the teaching of chemistry to French students in English. In the article, they investigate how a chemistry teacher uses her resources (Adler, 2010) during a lesson on atoms which is entirely in English. Ben Hammou and Kesbi (2021) analyse how Moroccan science teachers perceive science teaching in foreign languages, mainly French, in Moroccan secondary schools. According to them, neither teachers nor students were prepared to deal with a foreign language as a means of teaching. They believe that students' low knowledge of the French language is the main challenge. Therefore, they admit that they resort to their mother tongue to make it easier for students to learn the content. Teacher research reveals a certain reluctance to teach in a foreign language (Pena Diaz and Porto Requejo, 2008, Aguilar and Rodriguez, 2012, Bovellan, 2014). This is because teachers are not familiar with the integration of the language component in their teaching (Mehisto, 2008, Airey, 2012, Banegas, 2012). Numerous publications also indicate the lack of teacher preparation in the field of bilingual education (Probyn, 2006, Pena Diaz and Porto Requejo, 2008) and the lack of instructional materials. For example, Coonan (2007) reports that the burden of planning and designing materials in bilingual education rests on teachers, which may explain their reluctance to teach in a foreign language.

The literature describes teaching medical students in English relatively often when it is not their mother tongue (Chen and Wang, 2007, Ruyffelaert, et al. 2015, Chen, et al., 2016, Bahromov, Gapurov and Javohir, 2022). There were also publications related to teaching chemistry in a foreign language (Nechepurenko, 2015, Kondrashova, 2019).

## Theoretical / conceptual

Based on the review of the literature and personal experiences, it was decided to investigate how inclusive education is implemented in relation to students from Ukraine in science subjects. The aim of the article is to present the ways of working with students from Ukraine in a school without a preparatory department. Characterization of work with 4 different cases of youth and assessment of its effectiveness from the teacher's level. Hypothesis: Teachers in the School without a preparatory department are not sufficiently prepared to work with foreign students from Ukraine. They do not receive sufficient support adequate to their needs in subjects other than Polish to optimally organise their education

## Methodology of the research

The research used the case study method. A case study is appropriate when the subject matter of the research falls outside of the quantitative methods. The essence of the method is the belief that "stagnation and problems are caused by the individual's weakness, and the condition for the development of a person in a crisis situation is a comprehensive diagnosis of the causes of a specific case and individualised help, ensuring, in addition to a material offer, also the initiation of practical human activity as well as psychological ingenuity and faith in own strength" (Pilch, 1995). The case study aims to create an individual theory of a general phenomenon. Learning about specific, individual cases contributes to broadening the knowledge about the problem and allows for a better deepening of its analysis. The method of individual cases with an educational orientation is a research method based on the analysis of the fate of individual people involved in a specific educational situation. This method is used to describe education from the point of view of individual human biographies, focusing on the diagnosis of a case or phenomenon in order to implement therapeutic activities (Pilch, 1995, Rzepa, 2007). Examples of problems that determine the object of interest according to the discussed method are educational and didactic difficulties and family situation of the child, functioning of foster families, etc. The most frequently used technique of this method is an interview. Observation supplemented with the analysis of personal documents is also used (Pilch, 1995). This research was based on the observation and analysis of personal documents.

## The genesis and dynamics of the phenomenon

## Case 1

A student with average educational abilities with artistic abilities. During the initial lessons, he tries to "absorb the content with his whole being" (visible tension in the figure and uncertainty in the eyes). During the classes, there are visible overall differences in the way of implementing environmental issues and in the implementation of material in a given class. A student reporting difficulties with learning mathematics, which was confirmed by the mathematical problems implemented in the subject of chemistry. A student is involved in the process of acquiring knowledge, actively using a translator and materials prepared by the teacher in two Polish and Ukrainian languages, as well as the offer of activities and additional activities to improve functioning. Trying to establish basic verbal contact with both the teacher and class team members (during lessons and breaks), mainly in Ukrainian or through sentences read from the translator. Regularly and conscientiously working during classes throughout their duration. Involved in all activities in the classroom. Noticeable difficulties in learning foreign languages (These difficulties
are not surprising, because the difficulties of using many languages in learning and communication are compounded here - Polish, Ukrainian, Russian and additionally, e.g., English or German.)

## Case 2

A student with good educational opportunities in science subjects at the educational and higher education level (he should attend a post-primary school in Poland). In the course of education in the initial lessons, he is very active in science classes. He could correctly answer questions addressed to Polish students but in Ukrainian. As a result, he quickly gained recognition in the eyes of his peers and integrated himself perfectly with his surroundings. Integration may have been influenced by the fate of the student, for whom this is not the first time moving to a different environment. Involved in the process of acquiring knowledge, efficiently using the materials prepared by the teacher in two languages Polish and Ukrainian, as well as the offers of classes and additional activities to improve functioning. Regularly, relatively conscientiously working during the classes for most of their duration, although in jumping mode. Involved in all activities in the classroom. Noticeable difficulties (low motivation) in learning foreign languages other than Polish. During classes and during breaks, he conducts conversations with the teacher on loose topics related to the student's interests as well as on the teaching system and differences in the evaluation system in Ukraine compared to Poland. Showing interest in using Information and Communication Technologies (ICT) in class. Information that in Ukrainian schools the use of ICT in institutions, and even more so in lessons, is not so advanced.

## Case 3

A student with average educational opportunities in science subjects. In the course of his education from the beginning of his lessons he was not very active, he nodded affirmatively to most of the questions, requests and orders (even those without much sense). Not showing much interest in the discussed subject. Reacting mainly to messages or texts written in Ukrainian. Reluctant to talk about loose integration--related topics related to nature. Had little will to integrate with the class team, despite the activities initiated by the teacher and the possibility of speaking about their country in Ukrainian. A noticeable integration barrier, despite the fact that the student's fate suggests that this is not the first time he has moved to a different environment. (However, it happened at a very young age.) A student is involved in the process of acquiring knowledge only if he or she has specially prepared materials in Polish and Ukrainian, however, using mainly Ukrainian translations and to a small extent the content in Polish. Contact with the Polish language was limited to working with the textbook, mainly with picture content and diagrams. A student uses the offer of classes and additional activities to improve functioning, but with a passive attitude. A low level of involvement in classes, even in intra-teaching activities,
was observed. All activities had to be clearly initiated by name from the teacher to the recipient and supported by messages and / or motivating gestures. Reluctant to interact with the teacher and class team members during class and breaks, even with maximum openness and commitment from the other side. Noticeable difficulties (complete lack of motivation) in learning foreign languages.

## Case 4

A student with few educational opportunities in science subjects, interested in his regional folk culture. In the course of education from the beginning of the lessons, inactive (even for tasks of elementary difficulty). For most questions, requests and commands, he nods affirmatively (even those without much sense). Not showing interest in the discussed subject of natural sciences. Reacting mainly to certain messages or text written in Ukrainian. He was reluctant to talk about loose, integration--related topics related to nature or any other activities. Not willing to integrate with the class team, despite the activities initiated by the teacher and the possibility of speaking about their country in Ukrainian. A noticeable integration barrier, keeping in touch mainly with other Ukrainian students at school and with the tutor and management (rather than only because they had to). Slightly involved in the process of acquiring knowledge only if he had specially prepared materials in Polish and Ukrainian, but only with the use of translation into Ukrainian and to a negligible extent with Polish content. Contact with the Polish language was limited to working with the textbook, mainly with picture content and diagrams. A student who does not fully use the offer of classes and additional activities improving functioning, but with a very passive attitude. Performing the minimum curriculum. A low level of involvement in classes, even in intra-teaching activities, was observed. All activities had to be clearly initiated by name from the teacher to the recipient and supported by messages and / or motivating gestures - and even so, avoidance systems were used first. In class and during breaks, not getting in touch with the teacher and class team members, even with maximum openness and commitment from the other side. Noticeable difficulties (complete lack of motivation) in learning foreign languages.

## Research

Based on the observation of students and their products, as well as information obtained in schools, a document was created in which methods of working (activities) with students were proposed and the effectiveness of these methods was assessed (Table 1).

Table 1. Problems and implemented impacts in relation to students from Ukraine.

| No. | Problem, activity | Implementing impacts | Notes |
| :---: | :---: | :---: | :---: |
| 1 | Identifying curricular differences in individual science subjects | Analysis of textbooks available on the Internet. Searching for a general reference of the fragments of the core curricula carried out in Poland to the scope of the Ukrainian textbook. | Due to the difficulties of a linguistic nature, a general analysis aimed at familiarising oneself with the education system of Ukraine and the material implemented at individual stages of education. Materials provided by MEiN to schools also in Ukrainian. |
| 2 | Diagnosis of students' knowledge and skills in particular science | Cross-sectional diagnostic test of individual subjects. Diagnosis changed into tasks with a low level of difficulty in the form of rebuses, cross--pictures, diagrams, and drawing tasks. Acting in connection with the need to introduce the student to classes in a given subject using simple mental operations, showing the possibility of achieving educational success, creating a good working atmosphere. It is also important to take into account information from the student himself about his or her educational path, own achievements and educational difficulties. | Resignation from, among others due to the time-consuming process and the inaccessibility of information about the education system in Ukraine at the initial stage and language barriers, as well as the different time needed for a student to join the class team, traumatic experiences of students and their families. |
| 3 | Diagnosis of linguistic / communication competences in Polish and other foreign languages. <br> Paying attention to the simplification of the syntax of sentences and the lexical | The diagnosis was abandoned in connection with activities of this type during additional classes for these students, e.g., in Polish. It is also important to take into account information from the student himself about the language of communication in his natural surroundings and in the family home. | Using practical information, i.e. feedback obtained when enrolling the student in school or comments provided by Polish language teachers and the pedagogue adjusting the form of control (written, oral) to the student's linguistic competence. |
| 4 | Determining the interests and passions, hobbies and strengths of the child | Building motivation to work, a substitute for a sense of security, minimising educational difficulties. | Helpful based on this in lesson units, discussing the material on the subject, practical activities related to the student's hobbies. |


| No. | Problem, activity | Implementing impacts | Notes |
| :---: | :---: | :---: | :---: |
| 5 | Short, graded tasks (divided into stages), tasks with a gap or a choice from 3 proposed answers, graphic notes, worksheets based on a bilingual version and short, unambiguous commands, among others. match up in pairs, mark the correct answer | Tasks based on drawing structures, schematic with keywords in Polish and Ukrainian. Instructions addressed directly to the student, Guiding the answer with additional questions if necessary. | Taking into account the longer working time of the student related to the pace of reading and the need to analyse sentences in the Polish-Ukrainian language, arranging the answer in Ukrainian and then trying to translate it into Polish. Paying attention to learners' fatigue related to „using" several languages simultaneously, or to the health situation. |
| 6 | Using tasks by mapping and analogy, practising graphic notation in PL | Supported by a Polish student's guidance, or repeating activities while working in close contact with the Polish student. | Reasonable use of this way of work due to the need to also solve tasks of a higher level of difficulty by Polish students. |
| 7 | Practical tasks with a map, globe, microscopic observations, simple student chemical experiments, constructing nature drawings or drawing elements building individual structures | Instructions in graphical form with steps to complete a task or task by mapping activities. | Advanced elimination of the language barrier. <br> Where the need for a single keyword in Polish was clearly indicated by the student. <br> * Students do not pay attention to the contours of Poland's countries and neighbours. In the centre of the map they „see" Ukraine, not Poland). |
| 8 | Flashcards, Memory Polish-Ukrainian basic natural concepts | A task quite liked by the students of Ukraine. | Suggestions for slogans invented by the teacher and Polish students |
| 9 | Using communicators and dictionaries during classes | Tasks with the use of ICT, including interactive - great interest of students in such types of tasks. | Simultaneous translation is possible. |
| 10 | Tasks designed and assessed with the help of an interpreter | Commands and task content, keywords in a bilingual system | Using the system also when assessing students' works written in a mixed Polish-Ukrainian language |

ADDITIONALLY Monitoring the student's work each time and motivating students more (than in standard situations), clarifying doubts, selecting the most important information, conveying reinforced non-verbal messages, emotional support, building a sense of security, showing the strengths of the student and stressing even single correct words and answers.

The primary task of the school is to ensure the full development of each pupil, therefore a number of activities were initiated to allow students from Ukraine to open up and integrate with peer groups.

## Results <br> Effects of interactions

## Case 1

At the end of the school year, a student is able to work, among others. with a short text in Polish and a film on nature with subtitles in Ukrainian. He answered bilingual short questions in Polish with interspersed words or letters in words in Ukrainian.

## Case 2

At the end of the school year a student is able to work with a short text in Polish or a film about nature with subtitles in Ukrainian if it is compatible with the student's interests. It provides answers to bilingual short questions almost entirely in Polish. A declining level of engagement during classes was observed related to the knowledge of the already discussed content and the progressive writing skills in Polish. It required skipping tasks with a lower degree of difficulty in favour of tasks for higher school grades. There are no barriers to the operation of ICT equipment and displayed messages in English and Polish in accordance with the instructions provided by the teacher in Polish.

## Case 3

Due to the passive attitude and blockade of the student, high teacher involvement did not translate into effects for the student throughout the education. The student did only the minimum curriculum, with a predominance of the use of Ukrainian and single words in Polish. Further integration with the environment is recommended.

## Case 4

Due to the student's passive attitude and blockade, the teacher's high involvement did not translate into student outcomes throughout the course of education. A student who can use only the messages in Ukrainian, requires special psychological and pedagogical care and integration on many levels.

## Discussion

As can be seen, despite the detailed plan of work with Ukrainian students and the teacher's very high commitment, the results obtained for individual students are different and inadequate to the effort put by the teacher. This confirms the hypothesis that teachers without broader support are not ready to work with students who do not speak Polish. It turned out that learning science subjects with the use of bilingual (Polish-Ukrainian) materials was too much of a challenge for students. Our results are similar to those described by Strevens $(1971,1976)$ or Gajo $(2007 a, 2007 b)$. The teacher often used Ukrainian terms during lessons in the same way as described in the publications (Probyn, 2001, Tsui, 2004, Mohanty, 2013, Karabassova, 2020).

However, even such a procedure did not work out completely. This is probably due to the fact that the entire burden of planning and material design in bilingual education rested with the teacher. Coonan (2007) also describes similar problems. It also seems that a serious problem is the lack of preparation of teachers in the field of bilingual education (Probyn, 2006, Pena Diaz and Porto Requejo, 2008).

## Summary

In Poland, small ethnic minorities living in Poland are well adapted to functioning in Polish society. However, they cultivate their separateness, mostly using the Polish language efficiently and educating their children in this area. In recent years, there has been an increase in migration movements, and therefore an increased number of foreign students in Polish schools (Pamuła-Behrens and Hennel-Brzozowska, 2017, p. 186). In the face of the difficult situation of our eastern neighbours, Polish teachers often show great commitment in the process of educating and integrating students from Ukraine. Unfortunately, they do not feel competent in matters related to working with refugee and immigrant children. Support for practical guidance for school science teachers without preparatory classes is poor. It is rather insufficient to educate disadvantaged students. The documents provided (e.g., core curricula in Ukrainian) are not always legible to teachers of Polish schools, many of whom do not know (and are not required to know) even Ukrainian or Russian. There is a lack of system solutions and specific materials that teachers could use in school practice in working with multicultural classes. It has been shown that teachers are not properly prepared to be able to work effectively in various class teams, in which Polish students require a wide adaptation of methods and forms, and additionally having Ukrainian students under their care. So, at the end, you should ask yourself whether this is probably to the detriment of all three parties (Polish and Ukrainian students and teachers). "It is necessary to prepare the education system to cope with the difficulties resulting from this phenomenon" - multiculturalism and multilingualism. (Krakowiak and Kołodziejczyk, 2017, p. 270).

## References

Adler, J., (2000). Conceptualising Resources as a theme for teacher education. Journal of Mathematics Teacher Education, 3: 205-224, https://doi.org/10.1023/A:1009 903206236

Aguilar, M., Rodríguez, R., (2012). Lecturer and student perceptions on CLIL at a Spanish University. International Journal of Bilingual Education and Bilingualism, 15(2): 183-197, https://doi.org/10.1080/13670050.2011.615906
Airey, J., (2012). I don't teach language. The linguistic attitudes of physics lecturers in Sweden. AILA Review, 25: 64-79, https://doi.org/10.1075/aila.25.05air
Banegas, D.L., (2012). CLIL teacher development: Challenges and experiences. Latin American Journal of Content and Language Integrated Learning, 5(1): 46-56. DOI:10.5294/laclil.2012.5.1.4

Bahromov, K., Gapurov, U., Javohir, K., (2022). Characteristics of teaching medical chemistry to foreign students. AIP Conference Proceedings 2432, 050055 (2022), https:// doi.org/10.1063/5.0090654
Ben Hammou, S., Kesbi, A., (2021). The Teaching of Science Subjects Through Foreign Languages in Moroccan Secondary Schools: Science Teachers' Perceptions and Experiences. RELC Journal. doi:10.1177/00336882211035832
Błaszczak, A., Imiołczyk, B., (2012). Zasada równego traktowania. Prawo i praktyka, 3. Równe szanse w dostępie do edukacji osób z niepełnosprawnościami. Analiza i zalecenia. Warszawa, 2012, https://bip.brpo.gov.pl/pl/content/r\�\�wne--szanse-w-dost\�\�pie-do-edukacji-os\�\�b-z-niepe\�\�nosprawno\�\�ciami
Bovellan, E., (2014). Teachers' beliefs about learning and language as reflected in their views of teaching materials for Content and Language Integrated Learning (CLIL). Doctoral Dissertation. Jyvaskyla Studies in Humanities, 1-244
Chen, Y., Wang, J., (2007). Discussions on teaching experiences for foreign medicine students. Modern Medicine \& Health, 9.
Chen, R. et al. (2016). Practices on the English Teaching of Analytical Chemistry for the Foreign Students Majored in Pharmacy. Pharmaceutical Education, 04.
Coonan, C.M., (2007). Insider views of the CLIL class through teacher self-observationintrospection. International Journal of Bilingual Education and Bilingualism, 10(5), 625-646
Dalton-Puffer, C., (2017). Postscriptum: Research pathways in CLIL/Immersion instructional practices and teacher development. International Journal of Bilingual Education and Bilingualism, 21(3): 384-387.
Gajo, L., (2007a). Enseignement d'une DNL en langue étrangère : de la clarification à la conceptualisation. Actes des Journées de mutualisation de l'IUFM de Montpellier, https://www.emilangues.education.fr/files/par-rubriques/gajo_2007.pdf
Gajo, L., (2007b). Linguistic Knowledge and Subject Knowledge: How Does Bilingualism Contribute to Subject Development? The International Journal of Bilingual Education and Bilingualism, (10)5.
Le Henaff, C., Jameau, A., Gruson, B., Boilevin, T., (2017). Teaching Chemistry In English As A Foreign Language, A Case Study.
Karabassova, L., (2020). Is top-down CLIL justified? A grounded theory exploration of secondary school Science teachers' experiences. International Journal of Bilingual Education and Bilingualism, 23: 1-17. doi.org/10.1080/13670050.2020.1775781
Kondrashova, A.V., (2019). Teaching chemical discipline to foreign students. School of the Future, 3: 268-275.
Kopek-Putała, W., Nodzyńska, M., (2020). Zastosowanie technologii informacyjno--komunikacyjnej na zajęciach z chemii - w opinii ucznia z trudnościami w nauce studium przypadku. In: Walosik A., Żeber-Dzikowska I. (ed.), Edukacja przyrodnicza. W kręgu teorii i praktyki. Kraków: Wydawnictwo Naukowe Uniwersytetu Pedagogicznego. doi: 10.24917/9788380845220
Krakowiak, K., (2021). Zasady kompleksowego i skoordynowanego wsparcia osób z niepełnosprawnościami we wspólnocie zmierzającej do solidarności i odpowiedzialnego rozwoju, file:///D:/P/20210707_KKrakowiak_Zasady_organizacji_wsparcia_ niepe\%C5\%82nosprawnych\%20(9).pdf

Krakowiak, K., Kołodziejczyk, R., (2017). Standardy i wskazówki przygotowywania oraz adaptacji narzędzi diagnostycznych i procesu diagnostycznego dla dzieci i młodzieży odmiennych językowo i kulturowo. In: K. Krakowiak (ed.), Diagnoza specjalnych potrzeb rozwojowych i edukacyjnych dzieci i młodzieży. Standardy, wytyczne oraz wskazówki do przygotowania i adaptacji narzędzi diagnostycznych dla dzieci i młodzieży z wybranymi specjalnymi potrzebami rozwojowymi i edukacyjnymi. Ośrodek Rozwoju Edukacji, 270, https://efs.mein.gov.pl//wp-content/ uploads/2017/08/zal.16_wytyczne_wskazowki_standardy_adaptacji.pdf\&sa=D\&-source=docs\&ust=1657856230532349\&usg=AOvVaw0w-xENaLfluCgUu6nWuVVc
Mehisto, P., (2008). CLIL counterweights: Recognizing and decreasing disjuncture in CLIL. International CLIL Research Journal, 1(1): 93-120.
Mohanty, A.K., (2013). Multilingual education in India. In: Cummins, J, Hornberger, NH (eds), Bilingual Education. Encyclopedia of Language and Education. Vol. 5. New York: Springer, 165-174.
Nechepurenko, E.V., (2019). Features of teaching chemistry to foreign students. Innovations in the health of the nation, 512-516.
Pamuła-Behrens, M., Hennel-Brzozowska, A., (2017). Osobowość nauczycieli a ich praca z dziećmi migrantami w szkole podstawowej [The Teacher's Personality and its Impact on Work with Migrant Children in the Primary School]. Studia Edukacyjne, 46: 69-191. DOI: 10.14746/se.2017.46.11
Pena Díaz, C., Porto Requejo, M.D., (2008). Teacher beliefs in a CLIL education project. Porta Linguarum, 10: 151-161.
Pilch, T., (1995). Zasady badań pedagogicznych. Żak, Warszawa 1995
Probyn, M., (2009). Smuggling the vernacular into the classroom: Conflicts and tensions in classroom codeswitching in township/rural schools in South Africa. International Journal of Bilingual Education and Bilingualism, 12(2): 123-136.
Rozporządzenie Ministra Edukacji Narodowej z dnia 23 sierpnia 2017 r. w sprawie kształcenia osób niebędących obywatelami polskimi oraz osób będących obywatelami polskimi, które pobierały naukę w szkołach funkcjonujących w systemach oświaty innych państw (Dz.U. z 2020 r. poz. 1283 oraz z 2022 r. poz. 573) § 4.
Ruyffelaert, A. et al. (2015). Teaching scientific terminology in foreign language improves the performance of undergraduate medical students. International Congress on Education, Innovation and Learning Technologies (ICEILT 2015). 116-116.
Rzepa, T., (2007). in Rzepa, 1992. O studium przypadku i portrecie psychologicznym. Szczecin: Print Group Sp. z o.o.
Strevens, P., (1971). The language of instruction and the formation of scientific concepts, Science Education in Developing States: proceedings of the fifth Rehovot Conference. New York: Praeger.
Strevens, P., (1976). Problems of Learning and Teaching Science through a Foreign Language. Studies in Science Education, 3(1): 55-68. doi:10.1080/03057267608559833
Swain, M., Johnson, R., (1997). Immersion education: A category within bilingual education. In: Johnson R., Swain M. (eds), Immersion Education: International Perspectives. Cambridge: Cambridge University Press, 1-16.
Tarwacki, M., (2015). Edukacja włqczająca - przyszłość polskiej edukacji. Warszawa: Ośrodek Rozwoju Edukacji, https://www.ore.edu.pl/wp-content/plugins/download--attachments/includes/download.php?id=3190

Tsui, A.B.M., (2004). Medium of instruction in Hong Kong: One country, two systems, whose language? In: Tollefson J., Tsui A.B.M. (eds), Medium of Instruction Policies: Which Agenda? Whose Agenda? Mahwah: Lawrence Erlbaum, 97-116
Ustawa z dnia 7 września 1991 r. o systemie oświaty (Dz.U. z 2021 r. poz. 1915 oraz z 2022 r. poz. 583 i 1116) Art. 44c
Ustawa z dnia 14 grudnia 2016 r. Prawo oświatowe (Dz.U. 2017 poz. 59) Art. 133, 151
Wasiukiewicz-Rogulska, M., (2019). Edukacja włączająca w Europie - szansa czy utopia? [Inclusive Education in Europe - Chance or Utopia?]. Nauczyciel i Szkoła, 1(69). DOI: 10.14632/NiS.2019.69.13
https://ko.poznan.pl/ksztalcenie_wychowanie/nauka_dzieci_cudzoziemcow/2022/02/ zasady-przyjmowania-cudzoziemcow-do-polskich-szkol-w-kontekscie-obecnej--sytuacji-na-ukrainie/

## The role of the teacher in adjusting educational tools in inclusive education for children from Ukraine - case study


#### Abstract

In recent years, the education system in Poland has experienced education related to the introduction of teaching with the use of distance learning methods and techniques. This task was quite a challenge for teachers and students as well. When the situation has largely normalised, the education system in Poland is facing another challenge related to the increased influx of refugees from Ukraine to schools. The article describes the case studies of four students from Ukraine who came to Poland after 24. February 2022. In Poland, these students study in the classes of mainstream schools. These schools do not have specially created preparatory departments, which are established only in a select few schools in the region. The article describes good practices used in working with these students in science lessons. The amount of effort made in adjusting the methods and forms of work as well as the barriers and difficulties encountered by students and teachers at work is indicated. The effectiveness of the interventions was assessed from the perspective of the achieved results as well as from the teacher's position.


Key words: migrant education, inclusive education, education of students from Ukraine, inclusive education for children from Ukraine, case study

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