

INTERACTIVE PEDAGOGICAL METHODS FOR PROMOTING INCLUSIVE AND EFFECTIVE INTERACTION IN HETEROGENEOUS CLASSROOMS

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This article investigates the potential of interactive teaching methods as a mechanism for fostering effective student interaction in heterogeneous classrooms characterised by linguistic, cultural, and academic diversity. Particular attention is given to learners with a different first language (DFL) and students with special educational needs (SEN), for whom the quality of pedagogical support and classroom interaction is decisive. The study aims to examine how activating methods enhance students' inclusion and cooperation in a heterogeneous learning environment and to identify the conditions underpinning their effective implementation. The empirical evidence is based on a survey of 15 teachers working in multilingual and heterogeneous lower secondary education institutions in the Czech Republic. A mixed-methods approach was applied, combining quantitative analysis of questionnaire responses with qualitative interpretation of open-ended comments. The findings indicate that activating methods – such as discussion, educational games, group work, brainstorming, and problem-based learning – substantially improve student motivation, engagement, and communicative openness. They also strengthen social relationships and help reduce barriers between learners from different cultural and linguistic backgrounds. However, teachers reported several challenges, including limited preparation time, restricted classroom space, and a shortage of adapted didactic materials.

The study further demonstrates that activating methods perform a compensatory function in contexts of linguistic and academic heterogeneity by supporting students' participation in joint learning activities regardless of their individual educational needs. Overall, the results confirm the significant potential of activating methods as an effective tool for promoting interaction, inclusion, and social cohesion in heterogeneous classrooms.

Keywords: *activating methods; heterogeneous classroom; multilingual learners; students with a different first language (DFL); special educational needs (SEN); inclusive education; cooperative learning; educational games; group work; student motivation; intercultural interaction; linguistic diversity; socialisation; pedagogical support.*

Томашевська М. О. Інтерактивні педагогічні методи для стимулювання інклюзивної та ефективної взаємодії в гетерогенних класах

У статті досліджується потенціал інтерактивних методів навчання як механізму підтримки ефективної взаємодії учнів у гетерогенних класах, що характеризуються мовною, культурною та академічною різноманітністю. Особливу увагу приділено учням з іншою рідною мовою та здобувачам освіти з особливими освітніми потребами, для яких вирішальною є якість педагогічної підтримки та міжособистісної взаємодії в класі. Мета дослідження – з'ясувати, як активізувальні методи сприяють інклюзії та співпраці учнів у гетерогенному освітньому середовищі, а також визначити умови їх ефективного застосування. Емпіричні дані ґрунтуються на опитуванні 15 учителів, які працюють у багатомовних і гетерогенних колективах у закладах загальної середньої освіти Чеської Республіки. Застосовано змішаний підхід, що поєднує кількісний аналіз анкетних відповідей та якісну інтерпретацію відкритих коментарів. Отримані результати показують, що активізувальні методи, як-от дискусія, дидактичні ігри, групова робота, мозковий штурм та проблемне навчання, суттєво підвищують мотивацію учнів, їх залучення та комунікативну відкритість. Вони також зміцнюють соціальні зв'язки та сприяють зменшенню бар'єрів між учнями з різним культурним і мовним досвідом. Водночас учителі відзначили низку труднощів, зокрема нестачу часу на підготовку, обмежений простір класних приміщень та дефіцит адаптованих дидактичних матеріалів. Дослідження також демонструє, що активізувальні методи виконують компенсаторну функцію

в умовах мовної та академічної гетерогенності, підтримуючи участь учнів у спільній діяльності незалежно від їхніх індивідуальних освітніх потреб. Загалом, результати підтверджують значний потенціал активізувальних методів як ефективного інструмента взаємодії, інклюзії та соціальної згуртованості в гетерогенних класах.

Ключові слова: активізувальні методи, гетерогенний клас, багатомовні учні, учні з іншою рідною мовою, особливі освітні потреби, інклюзивна освіта, кооперативне навчання, дидактичні ігри, групова робота, мотивація учнів, міжкультурна взаємодія, мовне розмаїття, соціалізація, педагогічна підтримка.

Introduction. Contemporary school education increasingly operates in conditions of growing heterogeneity within student groups, shaped by migration processes, sociocultural diversity, and the individual educational needs of learners. Under such circumstances, traditional models of instructional organisation often prove insufficiently effective, as they do not ensure equitable participation of all students in the educational process. One of the key challenges for teachers is the creation of productive interaction among students with diverse linguistic, cultural, and academic backgrounds – a factor that determines not only their successful acquisition of curricular content but also their social adaptation and psychological well-being.

International pedagogical research demonstrates that effective interaction in heterogeneous groups directly depends on the use of methods that activate learners' cognitive engagement and provide conditions for cooperation, mutual support, and the exchange of experiences [7]. Activating methods – including group work, cooperative learning, problem-based approaches, and interactive techniques – are viewed as powerful tools capable of reducing language barriers, fostering students' inclusion in joint activities, and creating conditions for the formation of academically and socially meaningful connections within the classroom. This issue has gained particular urgency in the context of educating Ukrainian students in European Union countries following the outbreak of the full-scale war in Ukraine in 2022. European research confirms that the integration of children with a background of forced migration is a multidimensional process that largely depends on the quality of pedagogical support and the organisation of interaction within the classroom [3; 8]. Evidence from Czech schools similarly demonstrates that interaction among students of diverse backgrounds develops unevenly and is shaped by the extent to which teachers

succeed in creating a learning environment that fosters cooperation and mutual support [4; 6].

Within this context, activating methods function not only as didactic tools but also as social mechanisms that mediate the adaptation process, promote positive intercultural contact, and help reduce social tensions in heterogeneous classrooms [1; 2; 7].

Despite growing scholarly attention to active learning methods in mixed student groups, the question of their effectiveness specifically in heterogeneous classrooms that include learners with forced migration experiences remains insufficiently explored in contemporary Ukrainian educational research. This gap underscores the need for a comprehensive analysis of the potential of activating methods as instruments for fostering effective interaction, particularly when informed by empirical data collected in schools characterised by high levels of cultural and linguistic diversity.

The aim of the article is to analyse the potential of activating methods in fostering effective interaction among students in a heterogeneous classroom and to identify the conditions for their successful implementation within the educational process.

Methods and Methodology. The methodological framework of the study is based on a combination of quantitative and qualitative approaches, which made it possible to comprehensively examine the specific features of applying activating methods in heterogeneous classes and to interpret teachers' pedagogical experiences within the context of diverse student groups. The primary method of data collection was a questionnaire administered via the online platform Google Forms. The instrument consisted of eight closed, semi-open, and open-ended questions, which enabled the collection of both standardised data for quantitative analysis and detailed comments suitable for qualitative interpretation of pedagogical practices.

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The primary method of data collection was a questionnaire administered via the online platform Google Forms. The instrument consisted of eight closed, semi-open, and open-ended questions, which enabled the collection of both standardised data for quantitative analysis and detailed comments suitable for qualitative interpretation of pedagogical practices. The sample consisted of 15 teachers from lower secondary schools in the Czech Republic, all of whom work in classrooms characterised by high levels of academic, social and linguistic heterogeneity. A purposive sampling strategy was employed, as this group of teachers directly encounters the challenges of diverse student populations and actively employs a variety of instructional methods to support student interaction and participation in the learning process. This approach ensured the relevance of the data and made it possible to examine the effectiveness of activating methods in the real conditions of a heterogeneous classroom.

For the analysis of the empirical material, quantitative analysis of the closed-item responses was combined with a qualitative interpretative analysis of the open-ended comments. This methodological integration enabled the identification of key trends and allowed them to be interpreted in relation to the specific characteristics of classroom heterogeneity and the use of activating methods.

The study was conducted in accordance with all ethical standards. Participation was voluntary, the survey was anonymous, and no personal data were collected or processed. Prior to participation, all respondents were informed about the purpose of the study and provided their informed consent.

Results and Discussion. The findings of the questionnaire survey allow for an analysis of the specific features of using activating methods in the educational process. The study aimed to identify teachers' approaches to applying different types of teaching methods and to assess their effectiveness in the context of the contemporary lower secondary school. Based on the collected data, it was established that the most frequently used methods in teachers' professional practice are complex methods, applied by 10 respondents (66.7%). Activating methods rank second, regularly used by 7 teachers (46.7%). Traditional methods were found to be the least common, selected by 4 teachers (26.7%). This distribution indicates a tendency toward a gradual shift from predominantly reproductive forms of instruction to more interactive approaches, which aligns with current didactic trends.

Teachers also emphasise that lesson preparation often involves combining different groups of methods, which makes it possible to address the diverse learning needs of pupils more effectively. According to the respondents, the effectiveness of instruction largely depends on the active involvement of learners and on the development of their autonomy, creativity, and critical thinking.

The analysis of the respondents' answers showed that activating methods hold an important place in teachers' instructional practice. Based on the obtained data, it can be stated that 12 teachers (80%) frequently use activating methods, 1 respondent (6.7%) employs them consistently, and 2 teachers (13.3%) reported using them only occasionally. This tendency is consistent with current didactic recommendations, which highlight the necessity of regularly engaging pupils in active forms of learning [10; 12].

Based on the responses to the question "*Which activating methods do you use in your lessons?*", it was found that teachers most frequently prefer discussion methods – reported by 11 respondents (73.3%) – and didactic games, used by 10 teachers (66.7%). These methods represent key tools of active learning, as they foster pupils' communication, argumentation skills, and social interaction, which is also supported by previous research findings [5; 10]. It is also worth noting the frequent use of the brainstorming method, regularly applied by 8 teach-

ers (53.3%). This method serves as an important mechanism for stimulating creativity, active thinking, and the generation of new ideas. Scholarly sources indicate that brainstorming significantly enhances the development of creativity and promotes the engagement of pupils with diverse learning styles [7].

The obtained data are particularly indicative in the context of the heterogeneity of contemporary pupil groups. The diversity of achievement levels, learning styles, and linguistic and cultural backgrounds requires teachers to employ flexible pedagogical strategies that ensure the inclusion of every learner in the educational process. The interactive methods that dominate in the respondents' answers play a key role in this regard: they reduce barriers among pupils, support interaction within heterogeneous groups, and create opportunities for equitable participation regardless of learners' initial conditions. Therefore, analysing the frequency of the use of these methods provides deeper insight into how teachers respond to the challenges of heterogeneous classrooms and to what extent they adapt their practice to the needs of a diverse learner population. Situation-based methods and problem-solving methods are used by 6 respondents (40%). These approaches enable pupils to apply knowledge in real or simulated contexts and develop critical thinking, analytical skills, and collaborative abilities. Problem-based learning is considered one of the most effective ways to foster key competences in learners [7].

In analysing the responses to the question "*Which activating methods do you use most frequently?*", teachers indicated a wide range of methods, with their choice depending on the goals and content of a particular lesson. The data obtained from the fifth question show that 11 teachers (73.3%) consider activating methods to have a positive impact on pupils' engagement and motivation, while 4 respondents (27%) emphasise their very strong effect. This indicates that teachers are well aware of the importance of active forms of learning for fostering intrinsic motivation and supporting pupils' learning activity.

The results of the sixth question – "*What positive outcomes have you observed in your pupils as a result of using activating methods?*" – demonstrate that 13 teachers (86.7%) observed

improved pupil engagement and higher-quality interaction during lessons. Eleven teachers (73.3%) confirmed that activating methods increase learning activity and motivation. Ten respondents (66.7%) identified the development of communication and social skills as an important positive effect.

In addition, 9 teachers (60%) noted that active methods help pupils understand new content more effectively and retain it better. A smaller, yet significant, group of teachers also pointed to other benefits: enhanced creativity (5 teachers; 33.3%) and the development of self-presentation skills (3 teachers; 20%). Taken together, these findings indicate that activating methods have a multidimensional positive impact on pupils' learning processes.

An important aspect concerns the changes in pupils' interpersonal interaction. In response to the question "*Do you notice that pupils become more open and more willing to cooperate when activating methods are used?*", 10 teachers (66.7%) answered affirmatively, emphasising increased openness, communication, and willingness to exchange ideas. A further 5 teachers (33.3%) observed these effects partially. No respondent reported an absence of changes in pupils' behaviour, which indicates the consistent positive influence of active forms of learning on the social dynamics of the classroom.

At the same time, teachers reported a number of difficulties encountered when implementing activating methods. Seven teachers (46.7%) noted that such methods require extensive preparation and additional time. Six respondents (40%) pointed to limited classroom space, which complicates the organisation of interactive forms of work. Five teachers (33.3%) highlighted insufficient motivation or resistance from individual pupils, while 3 teachers (20%) mentioned a lack of appropriate didactic materials and resources. These challenges reflect common barriers to the implementation of innovations in the teaching process and underscore the importance of methodological and organisational support for teachers. In analysing the responses to the question "*Which activating methods do you use most frequently?*", teachers indicated a wide range of methods, with the choice directly dependent on the goals, content, and structure of a particular lesson. This

selection is particularly significant in the context of a heterogeneous classroom, where pupils differ substantially in their linguistic, cognitive, and social preparedness. As Tomashevskaya (2017) emphasises, interactive teaching methods stimulate students' cognitive activity and create conditions for productive interaction among participants in the educational process, which is especially important in mixed-ability and heterogeneous groups.

According to the survey results, 11 teachers (73.3%) consider activating methods to have a positive effect on pupils' engagement and motivation, while 4 teachers (27%) emphasise their very strong impact. This indicates that teachers not only declare the use of active forms of instruction but also clearly recognise their role in supporting learners' academic engagement. In the context of a heterogeneous classroom, such a perception becomes particularly important, as activating methods are viewed by teachers as a means of overcoming both cognitive and communicative barriers among pupils with diverse learning experiences.

The responses to the sixth questionnaire item – “*What positive outcomes have you observed in your pupils as a result of using activating methods?*” – make it possible to outline the range of changes that teachers associate with the systematic application of these approaches. Thirteen teachers (86.7%) reported that activating methods enhance pupils' involvement in the learning process and intensify interaction among them. Eleven respondents (73.3%) noted an increase in pupils' overall activity and motivation during lessons. Ten teachers (66.7%) highlighted the positive influence of these methods on the development of communication and social skills, which are essential for functioning within heterogeneous groups.

Furthermore, nine teachers (60%) observed improved comprehension of new material and longer retention, which is particularly valuable for pupils with varying levels of prior knowledge. Five respondents (33.3%) emphasised enhanced creativity and initiative, while three teachers (20%) identified the development of self-presentation skills. In the context of heterogeneity, these results suggest that activating methods fulfil both didactic and social functions, supporting inclusion, participation, and learner agency among pupils with diverse starting conditions.

An important finding concerns the changes teachers observe in pupils' interpersonal interactions. In response to the question “*Do you notice that pupils become more open and more willing to cooperate when activating methods are used?*”, 10 teachers (66.7%) answered affirmatively, emphasising increased readiness to collaborate, exchange ideas, and offer mutual support. A further 5 teachers (33.3%) reported that such changes occur at least among some pupils. The absence of responses indicating “no change at all” suggests that activating methods are perceived as tools that genuinely transform the social dynamics of the classroom. This is particularly significant in heterogeneous groups, where reducing social distance among pupils of different backgrounds and levels of preparedness creates the foundation for a safe and inclusive learning environment.

Despite the clearly positive outcomes, teachers also pointed to several challenges associated with the implementation of activating methods. In response to the question “*What difficulties or challenges have you encountered when applying activating teaching methods?*”, 7 teachers (46.7%) identified limited time for thorough preparation as a major barrier. Six teachers (40%) highlighted spatial constraints in classrooms, which complicate the organisation of group work and activities requiring movement. Five respondents (33.3%) mentioned insufficient motivation or even resistance among some pupils, while 3 teachers (20%) referred to the lack of appropriate didactic materials and resources.

In a heterogeneous classroom, these challenges may become even more pronounced, as the need for differentiated tasks, individualised support, and the organisation of mixed-ability groups increases. This underscores that effective use of activating methods in diverse learner groups requires not only teachers' professional competence but also adequate organisational and resource support at the school level.

Conclusions. The results of the conducted study indicate that activating teaching methods represent an important tool for supporting the educational process in heterogeneous classrooms. They contribute to the creation of an environment in which pupils with diverse linguistic, cultural, and educational backgrounds are

provided with greater opportunities for engagement, interaction, and cooperation. A significant proportion of teachers noted that the use of activating methods positively influences pupils' motivation, learning activity, and communicative openness, particularly among those who speak a different home language or belong to the group of pupils with special educational needs (SEN).

The analysis of teachers' responses demonstrated that methods such as discussion, didactic games, group work, and elements of problem-based learning promote mutual support within the classroom, strengthen social bonds, and create conditions for the equitable participation of all learners. In heterogeneous groups, these methods serve not only a didactic but also a crucial socialising function: they facilitate the adaptation of pupils with a different home language, support their linguistic integration, and help reduce communication barriers with peers.

At the same time, the study confirmed that the implementation of activating methods is

accompanied by several challenges: insufficient preparation time, limited classroom space, low motivation among some pupils, and a shortage of adapted materials suitable for work with heterogeneous groups. These factors partially impede wider use of activating methods; however, they do not diminish their potential within inclusive and culturally diverse educational environments.

In summary, it can be concluded that activating methods have a significant positive impact on the quality of learning and social interaction in heterogeneous classrooms. They enhance learning motivation, support cooperation, and foster the development of key communication and social skills necessary for the successful integration of pupils with a different home language and those with SEN. Further development of teachers' competences, improved access to methodological resources, and strengthened institutional support are essential conditions for the systematic implementation of activating methods as a tool for improving educational effectiveness in diverse school settings.

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