

# The Role of AI in Supporting Teaching in Mixed-Ability Classrooms

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Mixed-ability classrooms, where students exhibit diverse levels of knowledge, skills, and learning styles, present both opportunities and challenges for educators. This article explores the core principles of mixed-ability teaching, including differentiation, inclusive pedagogy, and adaptive assessment. It also addresses key challenges such as managing varying paces of learning, maintaining student engagement, and ensuring equitable participation. The article argues that artificial intelligence (AI) offers powerful, practical solutions to these challenges. AI can support teachers through personalised learning platforms, intelligent tutoring systems, real-time analytics, and content generation tools that adapt to individual student needs. Each proposed solution is illustrated with real-life classroom examples to demonstrate feasibility and impact. By integrating AI thoughtfully, educators can enhance learning outcomes, streamline instructional planning, and foster a more inclusive and supportive learning environment. This paper highlights the potential of AI not to replace teachers, but to empower them in delivering effective, differentiated instruction in diverse classrooms.

Artificial intelligence; mixed-ability classrooms; differentiated instruction; inclusive pedagogy; teacher support; educational technology.

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## 1. Introduction

In today's increasingly diverse classrooms, the term *mixed abilities* has become both a pedagogical challenge and a call to action. Teachers are tasked with delivering instruction that is inclusive, effective, and responsive to students who differ significantly in skills, experiences, and learning profiles. Nowhere is this more apparent than in English language classrooms, where learners may follow the same curriculum but vary widely in their linguistic competence, cognitive speed, engagement styles, and personal backgrounds.

In April 2025, a group of 90 English language teachers from Romania—representing primary, secondary, high school, and university levels—responded to the question: *What can mixed abilities refer to in a class?* Their answers illustrate the practical and layered complexity of teaching in such environments. While some teachers described mixed abilities

in terms of language proficiency, noting that students may range from A1 to C2 levels, others expanded the concept to include different learning styles, cognitive capacities, emotional maturity, and motivation. One teacher remarked that a mixed-ability class may contain “students who have different levels of English (sometimes ranging from A1 to C2),” while another noted the presence of “different learning speeds... different ways of understanding and memorizing information.” Several educators also emphasized cultural diversity, learning behaviour, and emotional resilience, with one response encapsulating the inclusive spirit of teaching: “Children come from different environments, with different skills, with different learning behaviour. Everyone can do SOMETHING in the class.”

This practitioner – informed understanding of mixed abilities aligns with scholarly conceptions found in differentiated instruction, inclusive pedagogy, and universal design for learning. The foundational work of Tomlinson (2001) on differentiated instruction emphasizes tailoring teaching methods to students’ readiness levels, interests, and learning preferences. Similarly, Florian and Black-Hawkins (2011) propose that inclusive pedagogy requires educators to view learner difference not as a problem to be fixed but as a resource to be valued. Despite the theoretical clarity of these frameworks, many educators continue to struggle with their implementation in real-world classrooms due to constraints such as time, class size, rigid curricula, and assessment pressures.

It is within this gap between theory and practice that artificial intelligence (AI) has begun to make a meaningful intervention. AI-based tools now promise to assist teachers in managing learner diversity through adaptive learning technologies, intelligent tutoring systems, automatic assessment and feedback, and AI-generated multilingual content. These systems have the potential to personalize learning pathways, monitor progress in real time, and reduce administrative burdens on teachers. Scholars such as Zawacki-Richter et al. (2019) and Hooda et al. (2022) argue that AI’s role in education is not to replace educators but to empower them by expanding their instructional toolkit.

This article explores the role of AI in supporting teaching in mixed-ability classrooms by analyzing both the challenges these environments pose and the technological solutions that AI may offer. By integrating international research with empirical data collected from Romanian teachers, the article aims to assess how AI can be used to promote educational equity, enhance engagement, and support personalized learning without compromising the teacher’s professional autonomy or ethical responsibility. In doing so, it contributes to a growing body of literature on AI in education, positioning teachers not as passive adopters but as critical agents shaping how technology is integrated into inclusive pedagogy.

## **2. Conceptual and Theoretical Framework**

The concept of *mixed-ability classrooms* has been a subject of pedagogical discourse for decades, reflecting the reality that students within a single learning

environment often exhibit wide variations in ability, prior knowledge, motivation, and learning styles. Differentiated instruction, as articulated by Tomlinson (2001), emphasizes that effective teaching in such contexts requires an intentional adaptation of content, process, and assessment to align with learner readiness, interest, and learning preferences. Similarly, inclusive pedagogy, as advanced by Florian and Black-Hawkins (2011), positions diversity as a resource rather than a limitation, calling upon teachers to design instruction that engages all learners rather than targeting a perceived “average” student. These frameworks underpin the theoretical foundation for addressing learner diversity, and they remain central to understanding the challenges that artificial intelligence seeks to mediate.

In educational settings, artificial intelligence refers to the use of computational technologies that replicate elements of human cognition, including adaptive learning processes, language understanding, and data-driven predictions, to support teaching and learning. While its early development focused on intelligent tutoring systems and algorithmic assessments, the recent evolution of AI tools has broadened the possibilities for supporting personalized learning, inclusive practices, and real-time feedback (Zawacki-Richter et al., 2019). In particular, adaptive learning technologies promise to reduce the burden of differentiation by automatically adjusting instructional material to learners’ needs (Dagunduro, Chikwe, Ajuwon, & Ediae, 2024), while AI-driven assessment and feedback tools have demonstrated potential for increasing student engagement and academic success (Hooda, Rana, & Dahiya, 2022).

However, the role of AI must be framed carefully within a broader pedagogical discourse. It is not AI itself that threatens to replace teachers, but rather the possibility that educators who resist engaging with AI tools may find their practices increasingly misaligned with the expectations and realities of contemporary classrooms. As such, AI should not be understood as a substitute for teachers, but rather as a catalyst for pedagogical transformation. In this context, it is not AI itself that displaces educators, but rather the reluctance to adopt and adapt to AI that may render certain teaching practices obsolete. This perspective underscores the importance of professional development, critical reflection, and ethical adoption, ensuring that AI complements rather than undermines the professional expertise of teachers.

Finally, taken into consideration all the above mentioned, it is necessary to admit the need for a balanced perspective. The introduction of AI into mixed-ability classrooms is not a neutral act but one situated within debates about equity, access, and ethics. Scholars have raised concerns regarding bias in AI algorithms, data privacy, and the risk of reinforcing inequalities if access to AI resources is uneven (OECD, 2024; Lim, Gottipati, & Cheong, 2023). Thus, any analysis of AI’s role in education must move beyond technical capabilities to consider its alignment with broader goals of inclusion, fairness, and empowerment.

### 3. Literature Review

The idea of mixed-ability classrooms has often been explored in educational studies, as it reflects the everyday reality of teachers who face the challenge of supporting students with very different needs in one learning environment. Tomlinson's (2001) work on differentiated instruction remains foundational, emphasizing the adaptation of content, processes, and learning outcomes according to student readiness, interests, and profiles. This theoretical position has been reinforced by research into inclusive pedagogy, which emphasizes that learner diversity should not be treated as a barrier but as a valuable asset to classroom learning (Florian & Black-Hawkins, 2011). More recent studies point to the lived experiences of teachers who encounter this diversity on a daily basis. Patel and Kim (2024) showed that teachers in special education describe differentiation as a constant balancing act between meeting curricular expectations and addressing individual student needs, a process that is both rewarding and demanding. These findings resonate with the responses collected from Romanian English teachers in the present study, who defined mixed abilities not only in terms of knowledge and language proficiency but also in relation to motivation, learning pace, and socio-emotional development.

Although differentiation has traditionally relied on what teachers themselves could design and implement, the reality of increasingly diverse classrooms has led many to consider technology as a way of easing this burden and extending support. Luckin, Holmes, Griffiths, and Forcier (2016), in their influential report *Intelligence Unleashed: An Argument for AI in Education*, highlighted the promise of AI in enabling personalized pathways, supporting formative assessment, and automating routine instructional tasks. Their analysis positioned AI not as a replacement for teachers, but as a supportive tool that amplifies professional expertise. Building on this, Luckin (2017) examined AI's potential in assessment, showing that while it creates opportunities for personalization and efficiency, it also requires careful integration to safeguard pedagogical values and teacher judgment.

A systematic review by Zawacki-Richter, Marin, Bond, and Gouverneur (2019) highlighted a key limitation in this emerging field: most AI initiatives in higher education (and not only might be added) were being shaped by technological priorities, with insufficient input from teachers in the design process. This imbalance raises important questions about teacher autonomy and the role of professional development in a rapidly changing educational landscape. Six years later, these concerns remain strikingly relevant. While awareness of the need for teacher involvement has grown and training opportunities are increasingly available, many AI systems continue to be developed with little pedagogical input. Teachers are more aware of AI's potential yet often feel unprepared or excluded from shaping how it is used, a situation that underscores the urgency of addressing teacher agency in the age of generative AI (OECD, 2024; Lim, Gottipati, & Cheong, 2023).

Against this background, recent empirical research has provided encouraging evidence of AI's applications in addressing learner diversity. Hooda, Rana, and Dahiya

(2022) found that AI-supported assessment platforms can generate timely and personalized feedback, thereby improving student performance and engagement in higher education contexts. Dagunduro, Chikwe, Ajuwon, and Ediae (2024) demonstrated that adaptive learning models can promote educational equity by tailoring content to the needs of individual students, offering a scalable form of differentiation. Similarly, Saleem, Aziz, Iqbal, and Abbas (2025) examined AI-based personalized learning systems and reported positive impacts on both engagement and achievement. What emerges from these findings is that AI offers a way to carry out differentiated instruction more widely and consistently than individual teachers could realistically achieve by themselves.

Beyond learning outcomes, AI has also been framed as a tool for enhancing inclusion and equity. Sathya (2024) highlighted the potential of adaptive learning ecosystems to foster social development by accommodating diverse learning profiles. Fitas (2025), in a study of AI for inclusive education, emphasized its role in supporting students with special needs and overcoming language barriers in multilingual classrooms. These perspectives align with broader policy-oriented analyses, such as the OECD (2024) report, which stressed that AI's impact on equity depends heavily on how issues of access, bias, and teacher preparation are addressed. Ethical concerns remain central to this idea. Lim, Gottipati, and Cheong (2023) approached these concerns and argued that without attention to fairness, accountability, and transparency, AI risks reproducing existing inequalities in educational assessment.

Despite this optimism, several scholars caution against viewing AI as a universal solution. Farrow, Iniesto, Pitt, Weller, and Bossu (2024) observed that the success of educational innovations depends as much on institutional culture, policy frameworks, and teacher knowledge as on the tools themselves. They note that while AI can contribute to addressing mixed abilities, its effectiveness ultimately hinges on how teachers are empowered to integrate it meaningfully within inclusive pedagogy. In this sense, I believe the question is not whether AI will replace teachers, but how teachers' roles will evolve alongside AI. As has been argued, it is not the technology itself that displaces educators, but the risk that those who fail to engage with it may find their practice increasingly out of step/date with the needs of twenty-first-century classrooms.

## **4. Methodology and Empirical Insights**

### **4.1. Research Design**

This study follows a conceptual-empirical design, combining a literature-based analysis with exploratory teacher input. Hence, it examines existing research on mixed-ability pedagogy and artificial intelligence in education, while the empirical strand introduces perspectives from Romanian teachers of English. The combination of these two approaches is particularly appropriate given the article's focus: to argue not only from

theory but also from the lived realities of educators who encounter mixed-ability classrooms daily.

A qualitative, descriptive design was chosen because the aim was not to produce large-scale generalizable claims but to generate context-rich and hands-on insights. Such an approach provides a nuanced understanding of the ways in which teachers interpret “mixed abilities” in their own classrooms, offering a practitioner’s view that complements the more abstract discussions of AI’s role in supporting differentiation and inclusion.

#### **4.2. Participants**

The participants consisted of 90 Romanian teachers of English, spanning primary, secondary, high-school, and university education. This range of contexts ensured that responses reflected not only differences across age groups but also across institutional settings and curricular demands. English language teaching provided an especially useful case for exploring mixed abilities, since English is often taught in heterogeneous classrooms where learners’ previous exposure to the language, learning strategies, and external resources differ greatly.

This heterogeneity is amplified by structural features of the Romanian education system. Pupils often change schools when they transition from grade 4 to grade 5, especially in rural areas where village schools provide only the early grades and students must move to larger towns for further education. A similar situation occurs at the end of grade 8, when students enter high school, and again when they progress to university. While the national curriculum remains the same across grades 0 - 12, the differences in school environments, teacher expectations, and peer groups contribute to significant variation in students’ prior knowledge and language competence. As a result, English language classes at each transition point tend to bring together learners with very different backgrounds, magnifying the challenges of teaching mixed-ability groups.

Teachers volunteered their participation during a professional training session in April 2025. The professional development setting created a context in which teachers were already reflecting on practice, making it more likely that their responses would be thoughtful and experience-based. Their collective voice provides a valuable view of how practitioners in one educational system currently conceptualize mixed abilities.

#### **4.3. Data Collection**

The data was collected using the online interaction platform *Slido*. Participants were presented with a single, open-ended question: “*What can ‘mixed abilities’ refer to in a class?*” They were asked to submit their answers anonymously using their mobile phone. When they registered for the workshop they were informed that they needed their fully charged mobile phone/tablet. The facility offered reliable and secure WI-FI connection.

This design choice was intentional. An open-ended prompt provided the flexibility for teachers to define “mixed abilities” in their own words, without constraints from predefined categories. The anonymity of the platform encouraged candid responses, enabling teachers to speak more freely about challenges they might hesitate to share in face-to-face interviews or group discussions.

The responses ranged from single-word entries (e.g., “motivation,” “confidence”) to longer reflections describing complex classroom dynamics. This variety illustrates the richness of teacher interpretations and shows how practitioners define mixed-ability education in layered ways, extending well beyond purely cognitive differences.

It should be noted that while 110 participants initially registered for the workshop, only 90 attended the face-to-face session. All attendees agreed to respond to the question, and they further consented to the use of their answers in this article.

#### **4.4. Data Analysis**

The data was analysed following the thematic analysis framework described by Braun and Clarke (2006). The analysis followed a process of repeated comparison, where each response was examined against earlier ones to refine and consolidate emerging themes. Five primary themes emerged:

1. Linguistic competence: Teachers frequently highlighted strong contrasts in vocabulary, grammar, and fluency.
2. Learning pace and cognitive processing: Many described differences in how quickly students grasp new content, recall information, or apply skills.
3. Motivation and engagement: A recurrent theme was the gap between motivated students who actively participate and disengaged learners who resist.
4. Socio-emotional development: Teachers noted inequalities in confidence, anxiety, resilience, and peer interaction.
5. Access to resources: Several responses emphasized differences in prior exposure to English and access to supplementary materials outside the classroom.

While these categories capture the major dimensions of mixed ability, teachers also pointed to structural factors, that exacerbate the challenge, such as large class sizes in urban schools and multi-grade teaching in rural areas. By structuring the responses in this way, the analysis shows that teachers perceive mixed ability as multi-dimensional rather than as a single trait. This complexity emphasises the challenge of designing instruction that can meet all learners’ needs simultaneously and that these contextual realities indicate that mixed ability must be understood not only in terms of learner diversity, but also in relation to systemic conditions of schooling.

#### **4.5. Empirical Insights from Teacher Perspectives**

The teachers' responses vividly illustrate the reality of differentiation as labour-intensive work. For example, one respondent observed that while some learners progress "in leaps," others require repeated explanations and extra scaffolding. Another noted that "motivation is a bigger challenge than language itself," pointing to the affective side of mixed ability. Teachers also spoke of balancing the needs of highly advanced students with those struggling at the most basic level, a dynamic that can create tensions in classroom management and curriculum pacing.

A common thread was the sense that differentiation demands a constant cycle of material creation, adaptation, and adjustment. Several teachers expressed that while they valued the principle of inclusive pedagogy, the workload of trying to accommodate every learner often felt overwhelming. This duality, commitment to inclusivity paired with professional exhaustion, is a recurring theme in both practitioner testimony and academic research. In the Romanian state education system, where classes are typically assigned to a single teacher without the support of teaching assistants, the weight of responsibility falls entirely on the classroom teacher. This structural feature amplifies the challenge of managing mixed-ability groups, as teachers must address diverse needs single-handedly, balancing instructional planning, assessment, and emotional support without additional professional help.

The challenge is further compounded by class sizes, which in many Romanian state schools range between 25 and 35 students. The combination of large groups and the absence of additional classroom support creates conditions where differentiation becomes both essential and nearly impossible to sustain at the desired level. At the same time, the opposite situation can be found in rural areas, where the number of students is too low to justify assigning multiple teachers. In such cases, a single teacher may be responsible for pupils from different grades, such as 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup>, taught together in the same classroom. This multi-grade arrangement intensifies the complexity of mixed-ability education, since teachers must simultaneously prepare and deliver content across grade levels while still attending to individual learner differences.

Several teachers also remarked that the sustained effort required for constant differentiation can take a toll on their wellbeing, echoing broader concerns in the literature about teacher stress, burnout, and personal erosion in inclusive educational settings. These insights speak about not only the pedagogical but also the human cost of managing diverse classrooms without systemic support mechanisms.

#### **4.6. Linking Empirical Insights to AI in Education**

It is within this context that the potential contribution of artificial intelligence becomes most relevant. If teachers are tasked with continuously adapting content, monitoring learning pace, and engaging diverse levels of motivation, then AI can provide crucial support by automating aspects of this work. Adaptive learning systems, for example, can adjust exercises in real time to a learner's ability. Intelligent tutoring systems

can provide practice opportunities at different levels of complexity. Analytics platforms can monitor participation and progress, offering teachers actionable insights at a glance.

These technological supports allow educators to delegate the quantifiable and repeatable dimensions of teaching to AI, while retaining their energy and focus for the relational, interpretive, and creative aspects of pedagogy. In rural multi-grade classrooms, where a single teacher may need to instruct pupils across two or three grade levels simultaneously, adaptive AI platforms could be especially valuable by providing differentiated learning material aligned to grade-specific curricula. In such cases, AI has the potential to function not as a substitute for teacher expertise but as an indispensable assistant that ensures all learners receive appropriately levelled instruction.

This perspective suggests a transformation in the teacher's role: rather than devoting the entire school year to creating and modifying instructional materials, educators can embrace the position of AI-informed sense-makers. By working alongside AI, teachers are better placed to direct their professional expertise toward inclusive strategies that truly address the diverse needs of mixed-ability classrooms.

#### **4.7. Synthesis**

The synthesis of empirical and conceptual aspects points to an important conclusion: AI should not be understood as replacing teacher expertise, but as amplifying it. The Romanian teachers' responses highlight the multi-layered challenges of differentiation, which cannot realistically be managed by human effort alone. Meanwhile, the literature shows both the promise and risks of AI in education, emphasizing the need for careful, ethical, and pedagogically grounded integration.

When these perspectives are combined, a clear picture develops: teachers remain central to inclusive education, but their role is shifting. AI can take on some of the burden of repetition and standardization, enabling educators to act as reflective practitioners who interpret data, make nuanced judgments, and sustain human connection in diverse classrooms.

This argument is particularly compelling in contexts with large urban classes or rural multi-grade classrooms, where the demands of differentiation are intensified by systemic factors. By addressing these challenges, AI holds the potential to support teachers in delivering instruction that is both equitable and sustainable. Therefore, the challenge is not whether AI will replace teachers, but how teachers can harness AI to strengthen their professional development, autonomy, and creative impact in mixed-ability contexts.

### **5. Discussion**

#### **5.1 Rethinking Mixed-Ability Classrooms in the Age of AI**

The findings from this study reaffirm that mixed-ability classrooms remain a defining reality of contemporary education, both in Romania and globally. Teachers in this study described differences in linguistic competence, pace of learning, motivation, socio-emotional

development, and access to resources as central dimensions of classroom diversity. These observations resonate with existing research, which similarly emphasizes that mixed-ability is a multidimensional construct rather than a single variable (Tomlinson, 2014; Blatchford et al., 2019). However, the testimonies of Romanian teachers further extend this picture by illustrating how structural conditions, such as large class sizes in urban schools and multi-grade classrooms in rural settings, exacerbate the challenges of differentiation.

This broader understanding of mixed ability suggests that inclusive pedagogy requires teachers to work across multiple layers of difference: not only individual learner variation but also systemic inequities rooted in school organization, resourcing, and geography. In such contexts, the principle of differentiation becomes both more urgent and more complex. Teachers in this study consistently voiced a tension between their commitment to inclusive practice and the exhaustion generated by the constant cycle of material creation, adjustment, and classroom management. Without additional support, differentiation risks becoming unsustainable, even for highly motivated and skilled practitioners.

It is against this backdrop that the potential contribution of Artificial Intelligence can be reconsidered. If mixed-ability classrooms are understood not simply as sites of diversity but as complex ecosystems shaped by individual, social, and structural factors, then the role of AI is not to replace teachers but to help them navigate this complexity. As Luckin (2017) and OECD (2024) argue, AI's capacity to provide real-time adaptation, predictive insights, and personalized content has significant implications for inclusive pedagogy. Yet what the Romanian case highlights is that AI should be deployed not in the abstract but in response to concrete challenges: supporting teachers who face thirty learners in one room without assistants, or those managing two or three grade levels simultaneously in rural schools.

By reframing mixed-ability education through this dual lens, combining global principles with local realities, it becomes possible to identify how AI might offer not just generic solutions but contextually responsive tools. This alignment between technology and lived classroom conditions is essential if AI is to move beyond rhetoric and become a practical resource for equity and inclusion.

## **5.2. The Transforming Role of the Teacher**

The integration of AI into education inevitably raises questions about how the role of the teacher is redefined in mixed-ability classrooms. Historically, as stated before, differentiation has relied heavily on the ingenuity and resourcefulness of teachers, who were expected to design, adapt, and deliver materials to meet diverse learner needs (Tomlinson, 2014). While this approach reflects professional skill and commitment, it is also deeply labour-intensive. As classrooms become increasingly complex, whether through linguistic diversity, varied learning paces, or structural realities such as multi-grade teaching, the expectation that teachers alone can sustain this level of differentiation becomes less reasonable.

This perspective suggests, as before highlighted, a transformation in the teacher's role: rather than devoting the entire school year to creating and modifying instructional materials, educators can embrace the position of AI-informed sense-makers. In this capacity, AI is not a replacement for teacher expertise but a resource that handles the quantifiable and routine elements of teaching. Adaptive platforms, for example, can generate leveled reading texts or practice activities aligned to different proficiency bands, while analytics dashboards can flag students at risk of disengagement. The teacher's task then becomes interpreting these outputs, contextualizing them within the lived dynamics of the classroom, and embedding them into broader inclusive strategies.

Research in AI and education has highlighted a recurring tension: many systems have been designed from a technological perspective with limited input from educators, which risks overlooking the pedagogical subtleties of real classrooms (Zawacki-Richter, Marín, Bond, & Gouverneur, 2019). More recent work suggests that this is beginning to shift, with greater attention being paid to teacher agency and professional development in AI-supported instruction (Holmes, Porayska-Pomsta, Holstein, Sutherland, & Luckin, 2022). What remains clear and it was stated before, is that the value of AI lies not in replacing teachers' professional judgment but in amplifying it.

For Romanian teachers in particular, the sense-maker role is especially pertinent. In classrooms without teaching assistants, where one educator is responsible for groups of approximately 30 students in urban areas or multi-grade groups in rural settings, the ability to draw on AI for routine scaffolding could be transformative. Rather than becoming overburdened by endless cycles of material preparation, teachers could direct their energy toward fostering engagement, building inclusive relationships, and guiding learners through the social and emotional aspects of learning. In this way, AI has the potential to reconfigure professional practice: not as a threat to teacher identity, but as a means of sustaining it in increasingly demanding contexts.

### **5.3. AI as a Tool for Differentiation and Inclusion**

One of the strongest findings of this study is that differentiation, while central to inclusive pedagogy, is also perceived by teachers as unsustainable when attempted without additional support. Here, AI offers promising opportunities by operationalizing differentiation at a scale that individual teachers cannot maintain alone. By leveraging adaptive learning systems, intelligent tutoring platforms, real-time analytics, and generative content tools, educators may be able to address the multiple layers of diversity present in mixed-ability classrooms more effectively.

Adaptive learning platforms are particularly suited to managing differences in cognitive pace and linguistic proficiency. For example, in a large urban class of thirty students, an adaptive reading platform such as MagicSchool (<https://app.magicschool.ai/tools>) or Flint (<https://app.flintk12.com/>) can assign levelled exercises tailored to each learner's

vocabulary range and comprehension ability. Rather than the teacher having to prepare three or four parallel versions of the same text, the system dynamically generates individualized pathways that converge on the same curricular goal. Teachers are then free to act as facilitators, guiding discussion, encouraging critical thinking, and supporting collaboration across ability levels.

Intelligent tutoring systems (ITS) further expand the possibilities for personalized practice. Tools such as *Write & Improve with Cambridge English* (<https://writeandimprove.com>) allow students to submit written texts and receive instant, automated feedback on grammar, vocabulary, and structure. In a Romanian high school English class, for example, weaker learners could focus on correcting grammatical errors while more advanced learners work on stylistic improvements, ensuring that each student benefits from individualized feedback. Similarly, a freemium platform like *Grammarly* (<https://grammarly.com>) provides sentence-level corrections and usage suggestions, enabling students to refine their language production at their own pace. These tools give teachers more flexibility, allowing them to dedicate time to higher-order concerns such as argumentation, creativity, and intercultural communication.

Real-time learning analytics can also play a crucial role in supporting student engagement and equitable participation. Several teachers in this study noted that motivational differences often overshadowed linguistic ability, with disengaged students posing a greater challenge than those who struggled with grammar or vocabulary. Platforms like Edpuzzle (<https://edpuzzle.com>) or ClassDojo (<https://www.classdojo.com>) allow teachers to monitor participation patterns and levels of engagement in real time. For instance, in a high school English class, Edpuzzle might reveal that a group of mid-level students consistently skips video segments, prompting the teacher to implement targeted strategies to re-engage them.

Finally, generative AI tools hold potential for easing the burden of material creation. Teachers repeatedly emphasized the constant cycle of adaptation and adjustment required to meet diverse learner needs. With AI-driven content generators, it becomes possible to rapidly produce alternative versions of exercises, quizzes, or even full lesson plans aligned to different proficiency levels or learning styles. Platforms such as Quillionz (<https://quillionz.com>), Socrative (<http://socrative.com>) and Curipod (<https://curipod.com>) enable teachers to create differentiated questions and lesson materials, while tools like ChatGPT (<https://chat.openai.com>) can generate levelled texts or discussion prompts tailored to students' needs. A teacher could, for example, prompt ChatGPT to produce simplified comprehension questions for weaker learners while generating inferential discussion prompts for more advanced students, both based on the same core text.

These applications align closely with the principles of inclusive pedagogy and adaptive assessment. AI-enabled assessments, whether formative or diagnostic, can provide immediate feedback tailored to each learner's level, enabling teachers to identify gaps and strengths far more efficiently than through traditional pen-and-paper tests. In this

way, AI does not just support individualized instruction but also creates new opportunities for equitable participation by ensuring that all learners, regardless of pace or starting point, have meaningful entry points into the curriculum.

The evidence from Romanian classrooms underscores the urgency of such solutions. Whether in crowded urban classes or small multi-grade rural schools, teachers face structural challenges that make differentiation increasingly difficult to sustain. By embedding AI thoughtfully into these contexts, educators can preserve their energy for the relational and creative dimensions of teaching while ensuring that learners receive instruction responsive to their diverse needs. Far from replacing teachers, AI thus has the potential to amplify their capacity to deliver inclusive, differentiated education in ways that are both pedagogically sound and contextually relevant.

#### **5.4. Challenges and Ethical Considerations**

Although AI holds significant promise for supporting differentiation and inclusion, it also raises important challenges. The OECD (2024) notes that while AI can enhance equity, it may also deepen inequalities where infrastructure and access are uneven. This is especially visible in Romania: many rural schools still face unreliable internet and limited devices, and with no teaching assistants in state classrooms, teachers bear the full burden of managing both instruction and technology.

Moreover, concerns about data privacy and bias are equally pressing. AI platforms rely on large volumes of learner data, which raises questions about ownership, consent, and protection. At the same time, language-focused tools may reproduce cultural or linguistic biases, inadvertently discouraging non-native speakers (Lim, Gottipati, & Cheong, 2023).

Finally, while AI is promoted as a means of reducing workload, teachers often worry it may initially create new pressures through training and troubleshooting. The key, therefore, is to frame AI as a supportive tool, with teachers remaining the sense-makers who bring professional judgment and human connection into mixed-ability classrooms.

#### **6. Conclusion**

This article has argued that artificial intelligence, if thoughtfully integrated, can play a significant role in supporting teaching in mixed-ability classrooms. The discussion has shown that while mixed-ability teaching is guided by long-established principles such as differentiation, inclusive pedagogy, and adaptive assessment, the sustainability of these practices remains a challenge for teachers working under real-world constraints. The empirical evidence from Romanian English teachers confirms this: although teachers recognize the value of inclusivity, many describe the workload of constant adaptation as exhausting, particularly in contexts where no teaching assistants are available or where one teacher is responsible for multiple grade levels in the same classroom.

Against this backdrop, AI offers tools that can help distribute some of the routine and quantifiable tasks of teaching. Adaptive platforms like MagicSchools or Flint, intelligent writing tutors such as Write & Improve, real-time analytics tools like Edpuzzle and ClassDojo, and generative AI platforms such as Curipod or ChatGPT demonstrate how differentiation can be better managed. These technologies do not replace teachers but allow them to assume the role of sense-makers, focusing their expertise on deeper aspects of teaching, interpersonal relationships, and the cultivation of inclusive classroom cultures.

At the same time, the challenges outlined in Section 5.4 make clear that AI is not a simple solution. Equity issues, especially in rural and under-resourced schools, remain a significant obstacle, while ethical concerns regarding privacy, bias, and professional autonomy must be addressed to prevent harm and preserve trust. Teacher professional autonomy remains central: if AI is to be successfully integrated, teachers must remain in control of how technologies are applied, trained in their pedagogical use, and supported institutionally rather than burdened individually.

The findings of this article thus support a nuanced position. AI should not be viewed as a disruptive force that will replace educators, nor as a neutral set of tools automatically leading to improvement. Rather, AI should be understood as a support for teacher's goals in the classroom: it can extend teachers' capacity to differentiate, personalize, and include, but only when situated within a supportive framework that values equity, professional development, and ethical responsibility.

Looking forward, further research is needed to deepen understanding of how free or freemium AI platforms can be adapted to local contexts, such as the Romanian education system, where structural limitations remain acute. Mixed-method studies combining teacher testimony with classroom trials could provide stronger evidence of both benefits and drawbacks. For practitioners, the immediate task is to experiment cautiously, integrating AI tools where they add value while maintaining a critical attitude toward their limitations. For policymakers and institutions, the responsibility lies in ensuring infrastructure, training, and ethical guidelines are in place so that AI supports rather than undermines inclusive education.

In conclusion, AI should not be seen as a threat to teachers, but as a resource to be exploited. Therefore, as insightfully observed before, the question is not whether AI will replace teachers, but whether teachers who do not engage with AI risk being replaced by those who do. The challenge, then, is not technological but pedagogical: how can AI be guided to support inclusive and differentiated teaching, instead of giving it the power to impose uniformity and standardization.

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