Inclusion of Children with Disabilities in Secondary Education in the Republic of North Macedonia: Globalization, Digitalization, and Individualization – Comparative Perspectives

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DOI: 10.64370/LHXI6794

Abstract

This paper explores the contemporary trends, systematic shifts, and operational challenges in inclusive secondary education within the Republic of North Macedonia, analyzed through the conceptual triad of globalization, digitalization, and individualization. Drawing upon a comparative framework, the study contrasts the Macedonian model with the educational systems of Croatia and Serbia to identify institutional best practices, structural barriers, and potential pathways for reform. The implementation of inclusive secondary education in North Macedonia formally commenced in the 2025/2026 academic year, driven by the newly enacted Law on Amending and Supplementing the Law on Secondary Education. Because of its recent launch, empirical data on its long-term efficacy remains sparse. Thus, this study synthesizes early structural indicators, qualitative systemic readiness, and historical lessons inherited from primary education. Globally, inclusive education is driven by international conventions such as the UNCRPD, establishing inclusion as an inalienable human right. However, local realities reveal a persistent gap between progressive legal frameworks and systemic execution. This research highlights the critical need for robust regional support structures, standardized assistive technology deployment, and the shift from mechanical to authentic multidisciplinary collaboration during Individualized Education Plan (IEP) formulation. By adopting localized versions of Croatia's de-centralized counseling model and Serbia's mobile support networks, North Macedonia can transition from nominal, physical placement of students with disabilities to genuine cognitive and social inclusion.

Keywords: inclusive education; secondary education; digitalization; Individualized Education Plan (IEP); assistive technologies; regional resource centers

1. Introduction

Inclusive education, as formalized by the Law on Amending and Supplementing the Law on Secondary Education (No. 08-2193/1, April 8, 2025) in the Republic of North Macedonia, represents a paradigm shift that recognizes and addresses the diverse individual needs of all learners. It guarantees equal opportunities for the realization of fundamental human rights to development and high-quality education. True inclusion extends far beyond merely admitting students with disabilities into regular classrooms; it entails a systemic process of structural and pedagogical adaptation. This includes modifying curricula, updating textbooks, developing tailored learning materials, and transforming overall educational strategies, institutional cultures, and methodologies.[1]

To realize this vision, secondary schools are legally mandated to provide reasonable accommodation for physical infrastructure and customized support systems to facilitate individualized learning plans. At the school level, the principal is responsible for establishing a School Inclusive Team. This team is tasked with overseeing and driving inclusive policies, pedagogical environments, and everyday classroom practices. Furthermore, on the recommendation of the Teachers' Council, a specialized individual inclusive team is formed for each student who requires an Individualized Education Plan (IEP) or a modified curriculum.

Systemic support is provided through various mechanisms, such as educational assistants, professional support from state secondary schools operating as resource centers, centers for learning support, and assistive technology. These accommodations are tailored to the student's specific profile, aligned with the International Classification of Functioning, Disability and Health (ICF). The transition from specialized schools to regional resource centers has been a key component of this reform. Starting in the 2025/2026 academic year, specialized institutions such as the State School for Rehabilitation of Children and Youth with Visual Impairments 'Dimitar Vlahov' – Skopje, the State School Center for Education and Rehabilitation 'Partenija Zografski' – Skopje, the State Secondary School for Rehabilitation and Education 'St. Naum Ohridski' – Skopje, and the State Secondary School for Education and Rehabilitation 'ISKRA' – Štip, transitioned into state secondary schools with resource centers.

This paper analyzes these developments through three interrelated lenses: globalization, digitalization, and individualization. By incorporating a comparative perspective with Croatia and Serbia, it evaluates regional practices, identifies critical systemic bottlenecks, and proposes actionable recommendations to bridge the gap between legal theory and classroom reality.

2. Literature Review

2.1. Inclusion as a Fundamental Human Right

Inclusive education is rooted in the international human rights framework, reflecting a transition from the medical model of disability to the social model. While the medical model views disability as an individual impairment requiring treatment or segregation, the social model argues that disability arises from the barriers imposed by an unaccommodating society. By dismantling these environmental, physical, and pedagogical barriers, the state fulfills its obligation to provide equitable access to education.

1. The 2025 legal amendments in North Macedonia represent the first structural effort to standardize inclusive practices at the secondary level, bridging the previous policy gap where inclusion was legally enforced only in primary education.

The primary legal pillar of this right is the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), adopted in 2006. Article 24 of the UNCRPD obligates States Parties to ensure an inclusive education system at all levels, alongside lifelong learning opportunities. This legally binding treaty demands that students with disabilities are not excluded from the general education system, and that they receive the necessary individualized support within the mainstream environment to maximize their academic and social development.

This framework is further reinforced by the UN Convention on the Rights of the Child (UNCRC, 1989), which stresses that education must foster the development of the child's personality, talents, and physical and mental abilities to their fullest potential. The Committee on the Rights of the Child has interpreted this to mean that education must be available, accessible, acceptable, and adaptable for every learner. Historically, the Salamanca Statement and Framework for Action on Special Needs Education (UNESCO, 1994) first galvanized global consensus on inclusive education, asserting that regular schools with an inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, and building an inclusive society.

In General Comment No. 4 (2016) on Article 24, the UN Committee on the Rights of Persons with Disabilities clarified that inclusive education requires a commitment to the 'whole person.' This involves high expectations, flexible curricula, and personalized educational responses. It establishes that the denial of reasonable accommodation constitutes a form of discrimination, placing a clear legal responsibility on schools to design and execute effective IEPs.

2.2. Globalization and Regional Legislative Frameworks

Globalization has accelerated the convergence of national educational policies toward international inclusive standards. However, the implementation of these global norms in the Western Balkans is heavily shaped by regional socio-economic realities and institutional histories. In North Macedonia, the National Strategy for Equality and Non-Discrimination (2022–2026), alongside the Law on Secondary Education, provides a progressive legal foundation. Yet, the translation of these policies into practice is often fragmented due to resource constraints and localized capacity issues. While inclusion in primary education has a longer history in the country, the roll-out in secondary schools is still in its infancy, making comparative regional insights highly valuable.

Croatia serves as a regional leader in establishing a structured institutional framework. The Croatian Act on Primary and Secondary Education (2015) explicitly regulates inclusive education with precise operational procedures for support, and the Croatian Education and Teacher Training Agency (AZOO) regularly develops standards and teacher training resources. Conversely, Serbia's inclusive journey, governed by the Law on the Foundations of the Education System (2017), highlights a different set of challenges. Although Serbia has a strong legal framework, its practical application is often slowed by the legacy of a highly segregated special school system, demonstrating that legislative updates must be accompanied by cultural and institutional changes.

3. Research Methodology

This study employs a comparative policy analysis framework, utilizing qualitative and document-analysis methodologies. The research compares the current state of inclusive secondary education in the Republic of North Macedonia, Croatia, and Serbia. This tripartite comparative approach evaluates how international inclusive education mandates are translated into national laws, institutional structures, and classroom practices. The primary data sources analyzed include: relevant national legislation, such as North Macedonia's 2025 amendments to the Law on Secondary Education, Croatia's Act on Primary and Secondary Education, and Serbia's Law on the Foundations of the Education System; national educational strategies up to 2030; and regional peer-reviewed literature on inclusive practices.

The comparative analysis is structured around three key thematic dimensions:

1. *Institutional and legal readiness:* assessing the clarity, cohesion, and enforcement of inclusive laws, with a specific focus on the role of specialized resource centers and school-level support teams.
2. *Digitalization and assistive technology (AT):* examining the availability, funding models, and integration of digital learning tools and AT designed to accommodate students with diverse physical and cognitive needs.
3. *Individualization and practical execution of IEPs:* evaluating the operational processes of formulating, implementing, and monitoring Individualized Education Plans (IEPs), noting the transition from administrative compliance to collaborative practice.

By examining these dimensions, this study seeks to identify key systemic challenges in North Macedonia and draw upon the experiences of Croatia and Serbia to propose realistic, evidence-based solutions.

4. Findings

4.1. Digitalization: Infrastructural Disparities and Access to Assistive Technologies

Digitalization is a critical driver of modern inclusive education, yet its implementation varies significantly across the three countries studied. In North Macedonia, digital inclusion remains highly uneven and often project-dependent, relying heavily on international donor funding. The country lacks a comprehensive national strategy for the procurement and deployment of assistive technologies (AT). Consequently, many classrooms lack basic adaptive hardware and software, leaving teachers to rely on standard digital tools that may not meet the diverse needs of students with disabilities.[2]

In contrast, Croatia demonstrates a more systematic, state-supported approach to digital transformation. Under the national 'e-Škole' (e-Schools) initiative, schools have been systematically equipped with digital infrastructure, and the Croatian CARNET network provides specialized digital materials. Furthermore, Croatia's specialized centers play an active role in

2. Assistive technology (AT) in the context of this study refers to screen readers, braille displays, adaptive keyboards, and specialized learning management software designed to equalize the pedagogical environment for learners with sensory or physical impairments.

evaluating, prescribing, and training educators and students in the use of AT. This centralized support structure ensures that digital inclusion is integrated into broader educational policies rather than treated as an isolated effort.

Serbia occupies a middle ground, characterized by strong strategic planning but uneven execution. The 'Strategy for the Development of Education in Serbia until 2030' prioritizes digital literacy and inclusion. However, like North Macedonia, local implementation is frequently hindered by budgetary constraints. To address this, Serbia has utilized 'mobile teams' containing special educators and technical experts who travel to regular schools to assist with AT assessment and integration. This mobile model offers a flexible and cost-effective approach to addressing resource shortages in rural and underserved areas.

4.2. Individualization: IEP Design, Teamwork, and the Transition to Practice

The Individualized Education Plan (IEP) is the cornerstone of inclusive pedagogy across all three systems, but the transition from policy to practice reveals varying levels of success. In North Macedonia, while IEPs are legally mandated for students with identified disabilities, their formulation is frequently treated as an administrative chore rather than a collaborative educational tool. Teachers often draft these documents in isolation, without substantial input from special educators, psychologists, or parents. This lack of collaboration, combined with limited teacher training on differentiated instruction, often results in IEPs that are overly generic and do not effectively guide daily classroom instruction.

Croatia's approach, termed the Individualized Education Program (IPP), is supported by a more integrated multidisciplinary framework. The process is collaborative, involving the subject teacher, school professional staff (pedagogues, psychologists, speech therapists, and rehabilitators), parents, and the student. Schools are supported by standing Consultative Bodies (Savjetodavne službe) that provide continuous oversight and guidance, ensuring that IPPs are regularly updated based on ongoing progress assessments.

In Serbia, the IEP framework is well-developed on paper, but studies reveal a persistent risk of 'benign exclusion.' In some cases, the IEP is used to justify lower academic expectations or to separate the student from the main classroom activities, rather than as a tool to facilitate active participation. This highlights a fundamental challenge: without a shift in school culture and attitudes, progressive administrative tools can be co-opted to maintain traditional, segregated practices.

5. Discussion and Conclusion

The findings of this comparative analysis underscore that successful inclusive education requires a comprehensive, systemic approach that goes beyond legislative mandates. North Macedonia's recent extension of inclusive policies to secondary education is a positive step, but its success will depend on addressing the underlying structural and cultural barriers that have historically limited inclusion in primary schools. The comparative data shows that Croatia's success is built upon strong institutional support, decentralized counseling networks, and a collaborative culture. Serbia's experience, meanwhile, serves as a reminder that legal progress must be matched by efforts to change deeply ingrained attitudes and dismantle legacy systems of segregation.

To build a truly inclusive system, North Macedonia must address several key areas: first, shifting from an administrative model of compliance to a collaborative, student-centered approach; second, developing a sustainable, state-funded model for assistive technology and digital infrastructure; and third, strengthening the role of the newly established resource centers to provide direct, hands-on support to mainstream secondary schools. By learning from the successes and challenges of its regional neighbors, North Macedonia can transition from nominal, physical integration to meaningful, cognitive, and social inclusion.

6. Limitations and Directions for Future Research

This study is subject to several limitations. First, because the implementation of inclusive secondary education in North Macedonia only commenced in the 2025/2026 academic year, there is a lack of long-term empirical data on its outcomes. This study relies on early structural indicators and qualitative policy assessments, which may not fully capture the diverse realities of classroom implementation. Second, the comparative analysis is limited to three countries in the Western Balkan region, which, while sharing similar historical and institutional contexts, may not reflect broader global trends in inclusive education.

Future research should focus on longitudinal studies to track the academic and social outcomes of students with disabilities in North Macedonia's secondary schools. Specifically, empirical research is needed to evaluate the effectiveness of the newly transformed resource centers and the operational utility of IEPs from the perspective of classroom teachers, students, and parents. Additionally, cross-regional studies comparing Western Balkan practices with Western European or Nordic models could provide valuable insights into alternative funding, training, and support structures.

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APPENDIX

Table 1. Comparative matrix of inclusive education dimensions

Dimension	North Macedonia	Croatia	Serbia
Legislative & Support Framework	Newly introduced (2025) for secondary; transition to regional Resource Centers.	Highly integrated (since 2015); standing Consultative Bodies in schools.	Modern laws (2017); legacy of segregated systems slows practical application.
Digitalization & Assistive Tech	Project-based, relies on donor funding; lacks a unified national strategy.	State-supported via 'e-Škole'; CARNET infrastructure; centralized training.	Strategic focus up to 2030; 'mobile teams' support technology integration.
Individualization & IEPs	IEPs are legally mandated but often formulated as an isolated, formal exercise.	Collaborative IPP involving teachers, specialists, and parents with regular reviews.	IEPs are widely used but risk serving as a tool for 'benign exclusion' inside classes.

About the Author

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